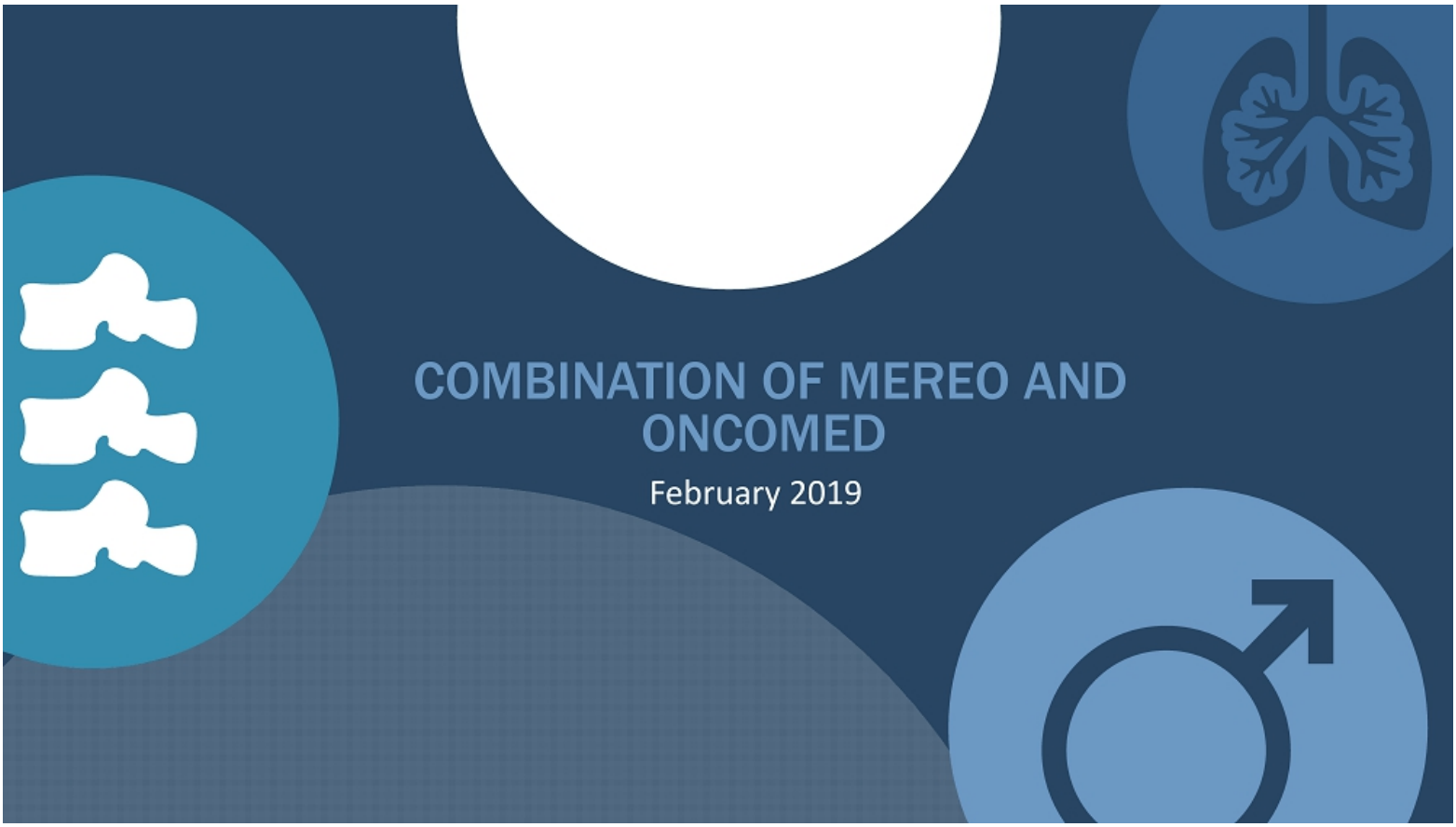
Filed by Mereo BioPharma Group plc pursuant to
Rule 425 under the Securities Act of 1933, as amended
Subject Company: OncoMed Pharmaceuticals, Inc.
Date: February 15, 2019.
(Subject Company Commission File No.: 001-35993)



DISCLAIMER

No Offer or Solicitation

This communication is not intended to and does not constitute an offer to sell or the solicitation of an offer to subscribe for or buy or an invitation to purchase or subscribe for any securities or the solicitation of any vote in any jurisdiction pursuant to the proposed transactions or otherwise, nor shall there be any sale, issuance or transfer of securities in any jurisdiction, in each case in contravention of applicable law. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act and applicable European or UK, as appropriate, regulations. Subject to certain exceptions to be approved by the relevant regulators or certain facts to be ascertained, the public offer will not be made directly or indirectly, in or into any jurisdiction where to do so would constitute a violation of the laws of such jurisdiction, or by use of the mails or by any means or instrumentality (including without limitation, facsimile transmission, telephone and the internet) of interstate or foreign commerce, or any facility of a national securities exchange, of any such jurisdiction.

In the United Kingdom this presentation is addressed to and directed only at, persons who are authorized or exempt persons within the meaning of the Financial Services and Markets Act 2000 or persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), persons falling within Article 49(2)(a) to (d) of the Order or persons to whom it may otherwise lawfully be communicated pursuant to the Order, (all such persons together being referred to as, "Relevant Persons"). This presentation is directed only at Relevant Persons. Other persons should not act or rely on this presentation or any of its contents. Any investment or investment activity to which this presentation relates is available only to Relevant Persons and will be engaged in only with such persons. Solicitations resulting from this presentation will only be responded to if the person concerned is a Relevant Person.

Additional Information

Important Additional Information Has Been and Will Be Filed with the SEC

Mereo has filed with the SEC (1) a preliminary registration statement on Form F-4 containing the proxy statement of OncoMed that also constitutes a prospectus of Mereo (the "proxy statement/prospectus") and (2) other documents concerning the proposed merger. **BEFORE MAKING ANY VOTING DECISION, INVESTORS AND STOCKHOLDERS ARE URGED TO CAREFULLY READ THE PROXY STATEMENT/PROSPECTUS, AND OTHER RELEVANT DOCUMENTS FILED OR TO BE FILED WITH THE SEC, INCLUDING THE DEFINITIVE REGISTRATION STATEMENT ON FORM F-4, IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE AND ANY OTHER DOCUMENTS FILED BY EACH OF MEREO AND ONCOMED WITH THE SEC IN CONNECTION WITH THE PROPOSED MERGER OR INCORPORATED BY REFERENCE THEREIN BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT MEREO, ONCOMED, THE PROPOSED TRANSACTION AND RELATED MATTERS**. Investors and stockholders will be able to obtain free copies of the proxy statement/prospectus and other documents filed with the SEC by the parties through the website maintained by the SEC at www.sec.gov. In addition, investors and stockholders will be able to obtain free copies of the proxy statement/prospectus and other documents filed with the SEC on Mereo's website at https://www.mereobiopharma.com/investors-page/sec-filings/ (for documents filed with the SEC by Mereo) or on OncoMed's website at http://cms2.oncomed.com/investors/financial-information/sec-filings (for documents filed with the SEC by OncoMed).

Participants in the Solicitation

Mereo, Oncomed and their respective directors, executive officers and certain employees may be deemed to be participants in the solicitation of proxies from the stockholders of Mereo and OncoMed, respectively in connection with the proposed merger. Stockholders may obtain information regarding the names, affiliations and interests of OncoMed's directors and officers in OncoMed's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which was filed with the SEC on March 8, 2018, and its definitive proxy statement on Schedule 14A for the 2018 annual meeting of stockholders, which was filed with the SEC on April 27, 2018. To the extent the holdings of OncoMed's securities by OncoMed's directors and executive officers have changed since the amounts set forth in OncoMed's proxy statement for its 2018 annual meeting of stockholders, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Information regarding the names, affiliations and interests of Mereo's directors and officers is contained in Mereo's Annual Report for the fiscal year ended December 31, 2017 and can be obtained free of charge from the sources indicated above. Additional information regarding the interests of such individuals in the proposed merger will be included in the definitive proxy statement/prospectus relating to the proposed merger when it is filed with the SEC. These documents (when available) may be obtained free of charge from the SEC's website at www.sec.gov, Mereo's website at https://www.mereobiopharma.com/investors-page/sec-filings/, or on OncoMed's website at http://cms2.oncomed.com/investors/financial-information/sec-filings.

FORWARD LOOKING STATEMENTS

Forward-Looking Statements

This communication contains "forward-looking statements". All statements other than statements of historical fact contained in this report are forward-looking statements within the meaning of Section 27A of the United States Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements usually relate to future events and anticipated revenues, earnings, cash flows or other aspects of our operations or operating results. Forward-looking statements are often identified by the words "believe," "expect," "anticipate," "plan," "intend," "foresee," "should," "would," "could," "may," "estimate," "outlook" and similar expressions, including the negative thereof. The absence of these words, however, does not mean that the statements are not forward-looking. These forward-looking statements are based on our current expectations, beliefs and assumptions concerning future developments and business conditions and their potential effect on us. While management believes that these forward-looking statements are reasonable as and when made, there can be no assurance that future developments affecting us will be those that we anticipate.

Factors that could cause actual results to differ materially from those in the forward-looking statements include failure to obtain applicable stockholder approvals in a timely manner or otherwise; failure to satisfy other closing conditions to the proposed transaction; failure to realize anticipated benefits of the proposed transaction; risks relating to unanticipated costs, liabilities or delays of the transaction; failure or delays in research and development programs; unanticipated changes relating to competitive factors in the companies' industry; risks relating to expectations regarding the capitalization, resources and ownership structure of the combined organizations; the availability of sufficient resources for combined company operations and to conduct or continue planned clinical development programs; the outcome of any legal proceedings related to the merger; risks related to the ability to correctly estimate operating expenses and expenses associated with the merger; risks related to the ability to project future cash utilization and reserves needed for contingent future liabilities and business operations; risks related to the changes in market prices of the shares of OncoMed's common stock or Mereo's ordinary shares relative to the exchange ratio; ability to hire and retain key personnel; the potential impact of announcement or consummation of the proposed transaction on relationships with third parties; changes in law or regulations affecting the companies; international, national or local economic, social or political conditions that could adversely affect the companies and their business; conditions in the credit markets; risks associated with assumptions the parties make in connection with the parties' critical accounting estimates and other judgments.

All of our forward-looking statements involve risks and uncertainties (some of which are significant or beyond our control) and assumptions that could cause actual results to differ materially from our historical experience and our present expectations or projections. You should carefully consider the foregoing factors and the other risks and uncertainties that affect the parties' businesses, including those described in OncoMed's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other documents filed from time to time by OncoMed and Mereo with the United States Securities and Exchange Commission (the "SEC") and those described in Mereo's annual reports, relevant reports and other documents published from time to time by Mereo. We wish to caution you not to place undue reliance on any forward-looking statements, which speak only as of the date hereof. We undertake no obligation to publicly update or revise any of our forward-looking statements after the date they are made, whether as a result of new information, future events or otherwise, except to the extent required by law.

KEY TRANSACTION TERMS

Combined company will operate as Mereo BioPharma

Upfront Stock Consideration	• Issuance of new Mereo shares (in the form of newly registered ADRs) to OncoMed shareholders • Ownership split on completion 75% Mereo / 25% OncoMed shareholders[1] • Consideration has an initial value of $54 million[2] and represents an 86% premium to OncoMed's current market cap[2]

Contingent Value Rights	• **TIGIT:** Issuance of additional Mereo ADRs if OncoMed's partner Celgene exercises its opt in right on the TIGIT program before 31 Dec 2019
	  • Value to OncoMed shareholders will represent 100% of net Celgene milestone payment actually received – $35m in Celgene contract
	  • Number of Mereo ADRs to be issued calculated based on prevailing Mereo share price following milestone announcement[3]
	• **NAVI:** Cash payment of 70% of the net proceeds of any milestones received by Mereo in relation to NAVI for 5 years following completion
	  • Subject to a cap of approximately $80 million

Management & Governance	• Mereo's CEO, Denise Scots-Knight, and existing management team will lead combined company • Board of directors will include 8 existing Mereo board members (including chair) and 2 new members from OncoMed • London, UK headquarters and US operational base in Redwood City, California
Approvals & Closing	• Transaction has been unanimously approved by the Board of Directors of each company • Expected closing in H1 2019, subject to OncoMed shareholder approval

(1) Based on the total number of Mereo ordinary shares currently outstanding and subject to an adjustment mechanism based on target OncoMed net cash balance of $38 million at closing
(2) Based on Mereo's current share price of 180.5 pence per share and OMED share price of $0.75 per share as at Jan 30, 2018
(3) New ADRs to be issued at completion or pursuant to the TIGIT CVRs will be subject to a total dilution cap such that they do not represent more than 66.7% of Mereo's issued share capital prior to completion (or equivalently, 40% of the enlarged share capital)

STRATEGIC RATIONALE FOR THE COMBINATION

1 Combined portfolio of six assets with near-term value catalysts

- Three phase 2 readouts in core orphan products in 2019 (Mereo's BPS-804 and MPH-966)
- Potential partnerships of Mereo's BCT-197 and BGS-649 programs
- Potential partnership of OncoMed's navicixizumab
- Ongoing Celgene collaboration with an option to license OncoMed's etigilimab

2 Strong combined cash position

- Extends Mereo's operational runway into 2020
- Pro-forma combined cash balance of $115.5 million as of 30 September 2018
- Opportunity to further extend through partnering or etigilimab option exercise

3 US and UK stock market listing

- Increased liquidity for shareholders
- More diversified, global shareholder base
- US institutional specialist healthcare investors

4 Enhanced team, capabilities and infrastructure

- Two new biopharma industry-experienced independent non-executive directors
- Combined expertise in product development and regulatory affairs
- UK headquarters in London
- US operational base in Redwood City, California

MANAGEMENT & GOVERNANCE

Industry Leading Management Expertise

Executive	Select Experience
 Dr. Denise Scots-Knight Chief Executive Officer	phase4 partners; Amersham Biosciences; Rothschild
 Richard Jones Chief Financial Officer	Investec; SHIELD
 Dr. Alastair MacKinnon Chief Medical Officer	phase4 partners; NOMURA; The Royal College of Surgeons of Edinburgh
 Charles Sermon General Counsel	phase4 partners; NOMURA; Freshfields
 John Richard Head of Corporate Development	phase4 partners; NOMURA; SEQUUS
 Wills Hughes-Wilson Head of Patient Access & Commercial Planning	sobi; SANOFI GENZYME

Enlarged Group Board of Directors

Mereo board will be expanded to include two of OncoMed's directors


Dr. Peter Fellner
Chairman


Dr. Denise Scots-Knight
Executive Director
CEO and Co-Founder


Richard Jones
Executive Director
CFO


Dr. Anders Ekblom
Non –Executive Director


Kunal Kashyap
Non –Executive Director


Peter Bains
Non –Executive Director


Paul Blackburn
Non –Executive Director

+

OncoMed

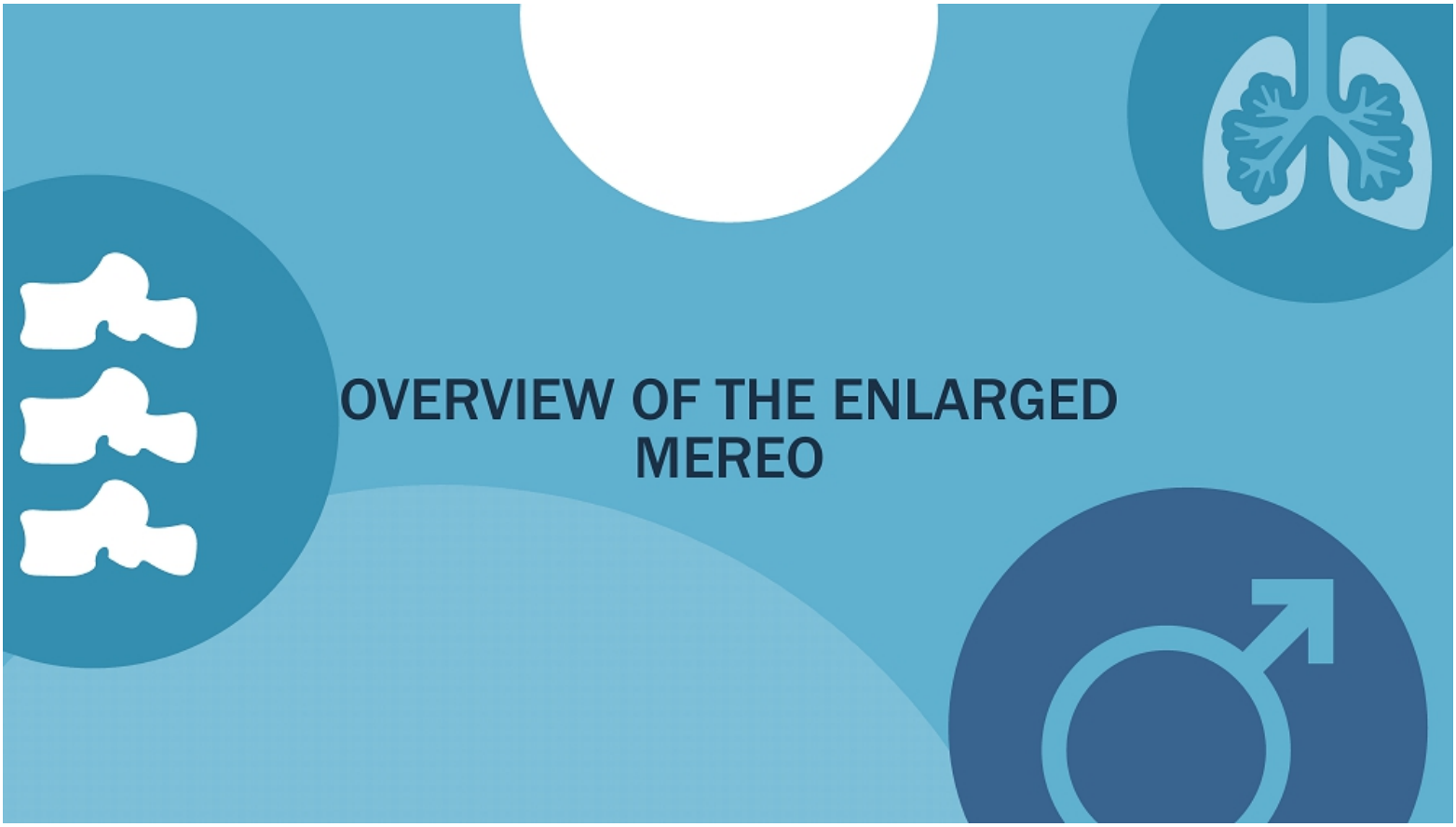

Deepa R. Pakianathan
Non –Executive Director


Michael Wyzga
Non –Executive Director

UPDATE ON THE TRANSACTION

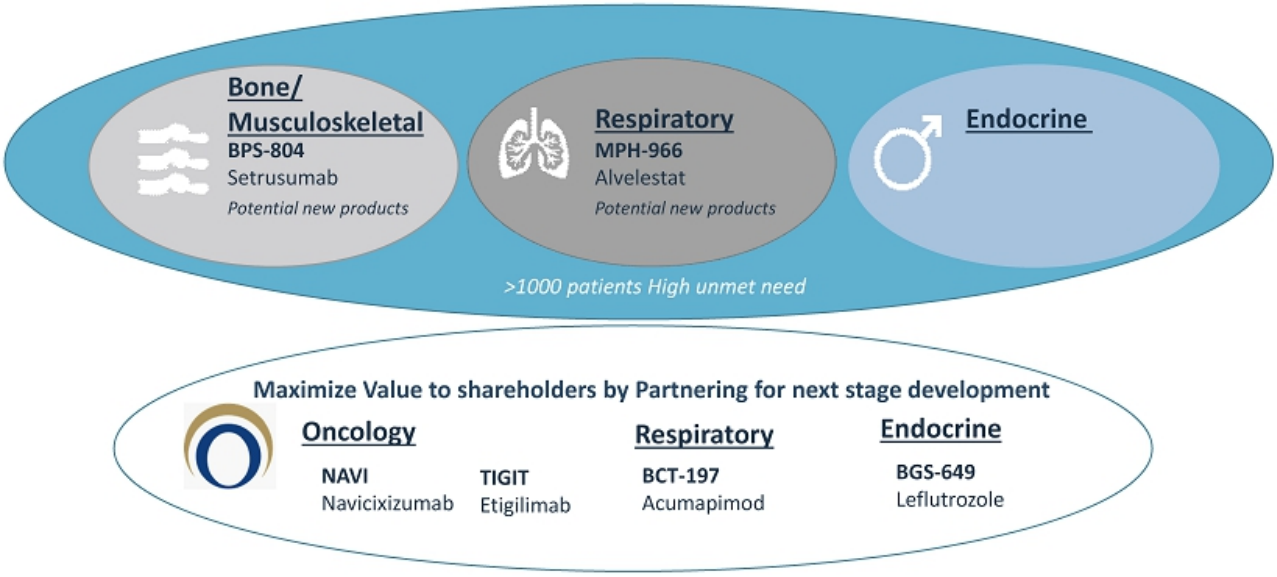
- Draft Registration Statement on Form F-4 filed with the SEC for Mereo on January 24, 2019
- Proxy statement of OncoMed included in Mereo Form F-4
- OncoMed shareholder meeting to be scheduled

Targeting completion in H1 2019


OVERVIEW OF THE ENLARGED
MEREO

CORPORATE AND COMMERCIAL STRATEGY

The core strategy of the combined business will continue to focus on Orphan Drugs & Rare Diseases



Maximize Value to shareholders by Partnering for next stage development

Oncology

NAVI
Navicixizumab

TIGIT
Etigilimab

Respiratory

BCT-197
Acumapimod

Endocrine

BGS-649
Leflutrozole

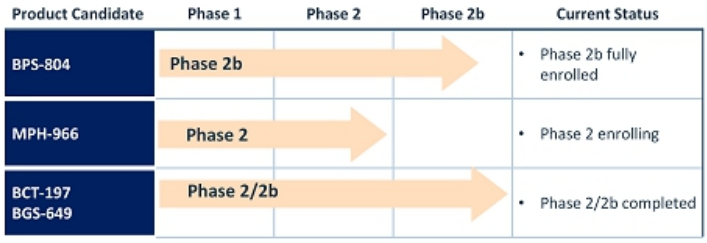
OVERVIEW OF MEREO

Mereo Overview

- Clinical stage biopharmaceutical company focused on developing products for rare diseases
- Headquartered in London, UK
- Successfully completed two Phase 2 studies and a Phase 2b and Phase 2 underway
- Extensive experience in clinical development, manufacturing, corporate development, patient access and commercial planning and finance and admin
- Portfolio of products acquired from Novartis and AstraZenecca
- Net cash of £36.9 million as of 30 June 2018

Key Product Overview & Pipeline

- **BPS-804: (setrusumab)** anti-sclerostin antibody resulting in differentiation, proliferation and survival of osteoblasts – targeting osteogenesis imperfecta
- **MPH-966 (alvelestat)**: neutrophil elastase inhibitor delivered orally targeting alpha-1 antitrypsin deficiency
- **Partnering** BCT-197 (acumapimod) P38 MAP kinase inhibitor with positive top-line data in acute exacerbations of COPD and BGS-649 (leflutrozole) an aromatase inhibitory with positive top line data in hypogonadotropic hypogonadism



OVERVIEW OF ONCOMED

OncoMed Overview

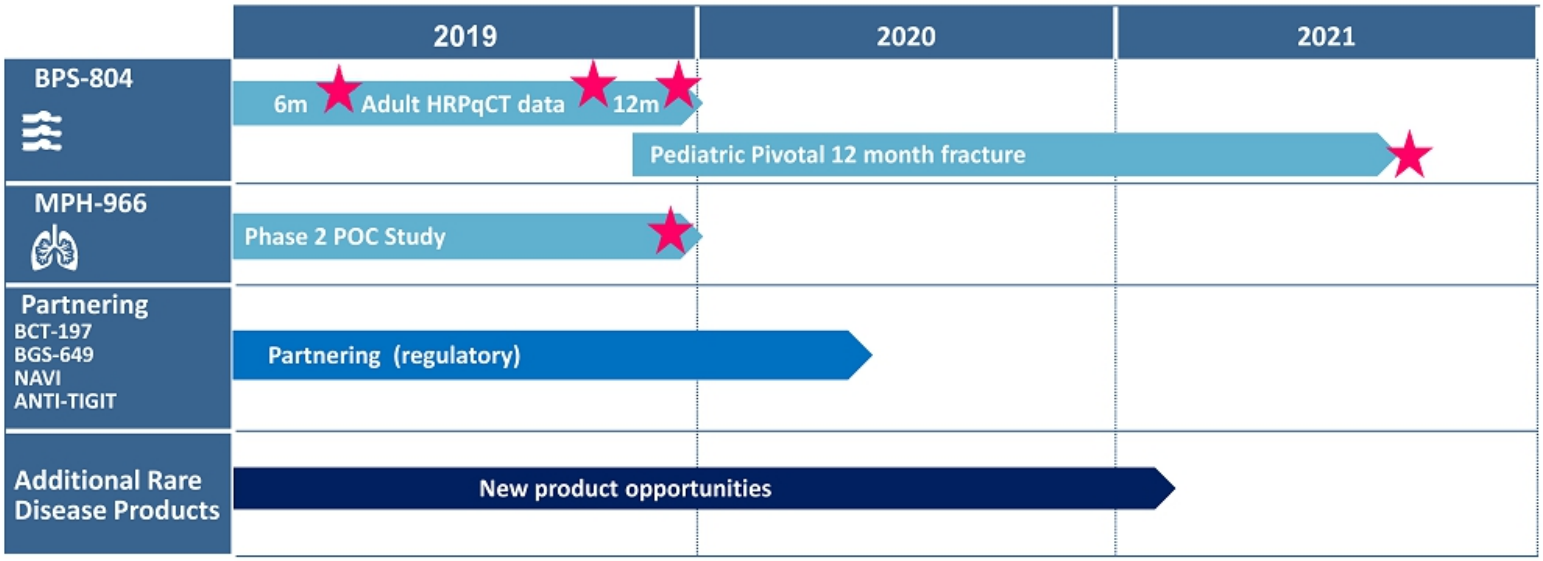
- Clinical stage biopharmaceutical company focused on discovering and developing novel anti-cancer therapeutics
- Headquartered in Redwood City, California
- Currently has three therapeutic candidates in clinical development (Phase 1/1b)
- Extensive experience in administrative, regulatory and clinical project management
- Established partnership with Celgene Corp
- Net cash of $70.9 million as of 30 Sep 2018

Key Product Overview & Pipeline

- **Navicixizumab** ("NAVI"): bispecific monoclonal antibody that targets and inhibits both Delta-like ligand 4 and vascular endothelial growth factor
- **Etigilimab** ("anti-TIGIT"): antibody that targets the T-cell immunoreceptor with immunoglobulin and ITIM domains (TIGIT), an inhibitory receptor that is thought to stop T-cells from attacking tumor cells
- **GITRL-Fc** ("GITRL"): member of the tumor necrosis factor family of ligands and functions to activate the co-stimulatory receptor GITR to enhance T-cell modulated immune responses

Product Candidate	Pre-Clinical	Phase 1A	Phase 1B	Current Status
Navicixizumab (NAVI)	Phase 1			• Phase 1B clinical trial under way
Etigilimab (anti-TIGIT)		Phase 1A		• Phase 1a and 1b underway • Potential to realize $35m milestone from Celgene
GITRL-Fc Trimer (GITRL)		Phase 1A		• Phase 1a data due in 2019

MEREO UPCOMING KEY MILESTONES



COMBINED FINANCIALS

MERGER DEAL METRICS

	Mereo	Oncomed	Base (at close)	Inc TIGIT CVR
Shares in issue	71.2 m	38.6m	**95.0**	110.2m
Price per share (1)	£ 1.805	$ 0.75		
New shares issued				
New ADR's issued (5 for 1)			**4.7m** (1)	8.2m (3)
% shareholding			**25%**	35%
Equity value			**$55.2m** (2)	$ 90.2m (2)
Value per share			**$1.43** (2)	$ 2.34 (2)
Premium (to current) (2)			**93%**	216%

(1) Based on the total number of Mereo ordinary shares currently outstanding and subject to an adjustment mechanism based on target OncoMed net cash balance of $38 million at closing
(2) Based on Mereo's current share price of 180.5 pence per share and OMED share price of $0.73 per share as at January 30, 2019
(3) New ADRs to be issued at completion or pursuant to the TIGIT CVRs will be subject to a total dilution cap such that they do not represent more than 66.7% of Mereo's issued share capital prior to completion (or equivalently, 40% of the enlarged share capital)

SELECTED PROFORMA CONSOLIDATED STATEMENT OF OPERATIONS (1)

FOR THE YEAR ENDED DECEMBER 31, 2017

£'m	Mereo	Oncomed	Proforma adjustments	Proforma consolidated
Collaboration and other revenue	-	29.6	-	29.6
Research and development expenses	(34.6)	(46.4)	(2.9)	(83.9)
Restructuring charges	-	(2.0)	2.0	-
Operating (loss)	(45.3)	(31.8)	(3.6)	(80.7)
Loss (after tax)	(38.8)	(30.3)	(3.6)	(72.7)
Loss $'m equivalent	*(48.8)*	*(39.1)*		
Monthly loss run rate	*$4.1m*	*$3.3m*		

(1) Extracted from unaudited pro forma condensed combined financial information contained within pages 24-34 of the F-4 filed with the SEC on January 24, 2019

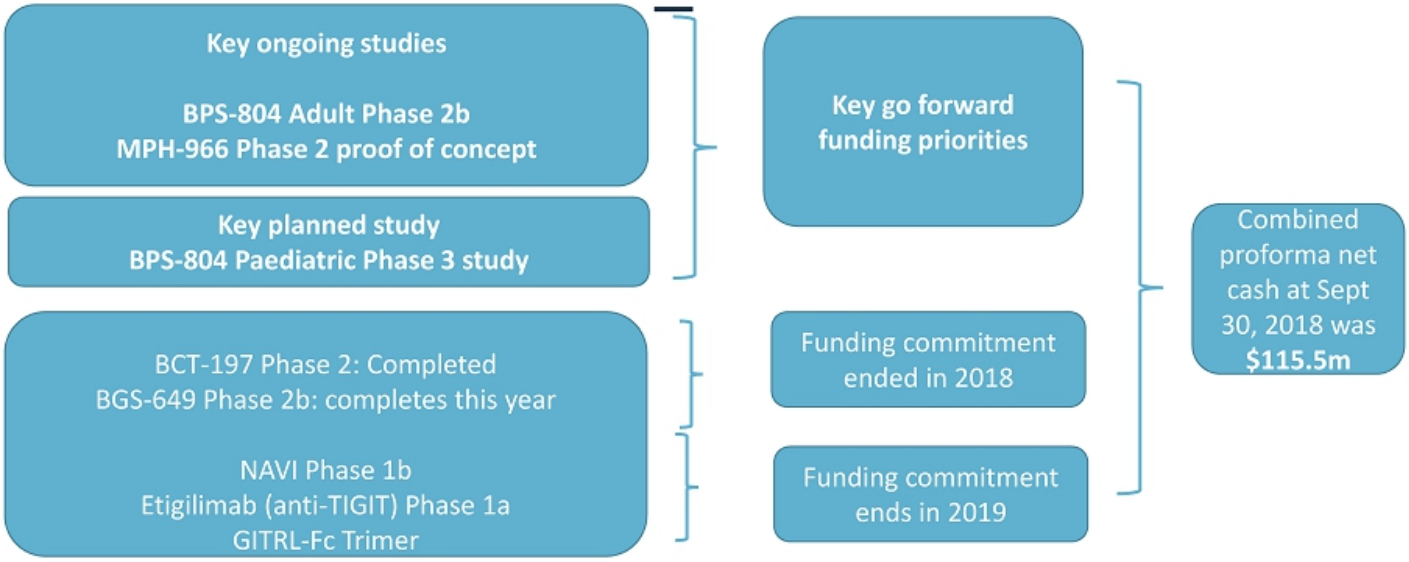
SELECTED PROFORMA CONSOLIDATED BALANCE SHEET(1)

AS OF JUNE 30, 2018

£'m	Mereo	Oncomed	Proforma adjustments	Proforma consolidated
Property, plant & equipment	0.2	1.9	(0.4)	1.6
Intangible assets	32.7	-	14.4	47.1
Other assets	-	1.4	-	1.4
Total non-current assets	32.8	3.3	14.0	50.1
Short-term investments, cash & short term deposits	**36.9**	**60.5**	**-**	**97.4**
Other current assets	12.3	1.2	-	13.5
Total current assets	49.2	61.7	-	110.9
Total assets	82.0	65.0	14.0	161.0

(1) Extracted from unaudited pro forma condensed combined financial information contained within pages 24-34 of the F-4 filed with the SEC on January 24, 2019

COMBINED GROUP CASH RUNWAY EXTENDED INTO 2020



Post merger, additional funding expected via partnering opportunities for the non-rare disease products

IMPROVING OUTCOMES FOR PATIENTS IN RARE DISEASES

Denise Scots-Knight – CEO
Richard Jones – CFO
Alastair Mackinnon - CMO

February 2019


BPS-804
SETRUSUMAB
(ACQUIRED FROM NOVARTIS IN 2015)

OSTEOGENESIS IMPERFECTA A SEVERE GENETIC BONE DISEASE

THE NEW PAPER Friday, December 22, 1995

SINGAPORE TODAY

He's broken bones 15 times

FROM PREVIOUS PAGE

JEREMY Lim has broken his bones 15 times.

The five-year-old has been suffering from brittle bone disease since birth.

Two days after his birth, he fractured a thigh and had his legs bandaged up in a splint in hospital.

Jeremy is too weak to walk. Though he loves playing like any child, he cannot engage in rough games.

If he does, he might fracture his limbs.

His mother, SEA Games taekwondo gold-medallist Wong Liang Ming said: "I always worry about him when I'm in competition overseas. Nobody knows the kind of anguish I go through then.

"The doctors say it is because of the shortage of a particular hormone that absorbs calcium in the body."

The disease hits one in every 20,000.

"But why Jeremy?" wondered Liang Ming.

"Sometimes, in the middle of the night, he'll scream in pain. And we'll know, he's fractured a bone just by turning and tossing in bed. It truly hurts but we have to live with it."

But, if anything, the affliction has brought mother and son closer together.

"To me, he is the most precious thing in life. I wouldn't want anything in the world to come between him and me. I think the illness has also made me and my husband more mindful of the needy and more tolerant in life," said the taekwondo star.

"We tend to appreciate the simple things in life and the way parents feel about their children even more."

According to Liang Ming, Jeremy's doctors have told her that when his bones grow, he would have to undergo a few operations.

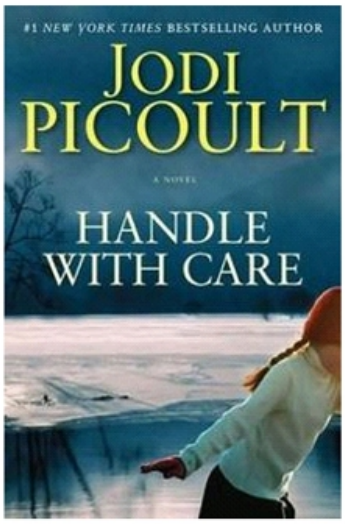
"The operations are to insert rods to strengthen his limbs," she said.

"But until then, we will have to take turns looking after him round the clock."

Sometimes, in the middle of the night, he'll scream in pain. And we'll know, he's fractured a bone just by turning and tossing in bed. It truly hurts but we have to live with it.

— *Wong Liang Ming, on son Jeremy's illness*

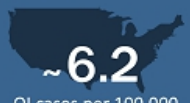
Jeremy Lim: At a hobby other fascinating his legs.



OSTEOGENESIS IMPERFECTA (OI)

An orphan genetic chronic bone disorder characterised by fragile bones that break easily

Prevalence:



~6.2
OI cases per 100,000 population in the US [1]

~10
OI cases per 100,000 population in the EU [2]

85% - 90%
linked to a gene mutation that produces abnormal type 1 collagen [1, 2]

OI types I, III and IV occur in
72% - 77%
of total OI population [3]

Symptoms

- Frequent bone fractures and brittle teeth
- Early hearing loss
- Respiratory problems

No FDA or EMA approved therapies in OI

Historically 83 patients received BPS-804.

In OI patients, statistically significant improvement in lumbar spine BMD and increase in biomarkers of bone building and reduction of biomarkers of bone resorption shown

1) Based on Osteogenesis Imperfecta Foundation estimates
2) Based on Orphanet estimates
3) Shapiro J (2014) Osteogenesis Imperfecta: A Translational Approach to Brittle Bone Disease. Academic Press. Chapter 2: p15-22

OI TREATMENT:
DRUGS USED – NONE FDA OR EMA APPROVED FOR OI

- Bisphosphonates
  - Alendronate, risedronate, pamidronate, zoledronate, etc.
  - Approved for treatment of adult osteoporosis
  - Synthetic analogues of pyrophosphate
  - Inhibit bone resorption
  - Can be given orally or intravenously, depending on compound
- PTH analogue
  - Teriparatide (Forteo®)
  - Increases number + activity of osteoblasts
  - Increases bone turnover
  - Usefulness in OI not clear
  - Black box warning due to potential risk of osteosarcoma
- RANKL Inhibitor
  - Denosumab (Prolia®)
  - Inhibits bone resorption

BPS-804 ADULT PHASE 2B STUDY

Completed enrolment:
112
OI Patients
Types I, III and IV

Trial arms:
Three different monthly dosing regimens of BPS-804

Open label arm at top monthly dose

Study duration:
52
Weeks

Analysis at 26 and 52 weeks

6 months open label data 1H 2019 with 12 months H2 2019

Top line data from three blinded arms by the end of 2019

Primary endpoints

Trabecular volumetric BMD by HRpQCT versus baseline at 12 months
Change in bone strength using finite element analysis

Secondary endpoints

- Trabecular volumetric BMD by HRpQCT at 6 months
- BMD by DXA scans at 6 and 12 months
- HRpQCT parameters
- Bone biomarkers
- PRO and quality of life

BPS-804 – PEDIATRIC PHASE 3 STUDY

Planned enrolment:
~160
Severe OI Patients
Types I, III and IV

24 patients 5-18 years
One month dose finding – 3 doses versus placebo
Additional 128 patients
Randomised 1:1 placebo to selected dose

Total Study duration
52 Weeks

Initiation in 2019 first in EU and Canada

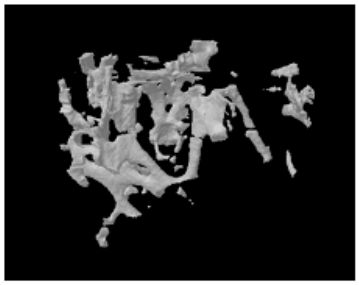
Patients on bisphosphonate therapy

Primary endpoints
Fracture rate versus placebo at 12 months

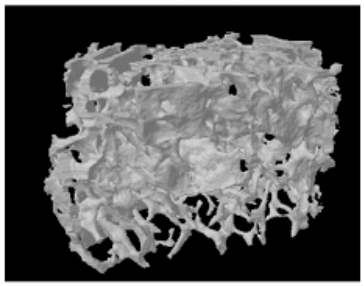
Secondary endpoints
- Trabecular volumetric BMD by HRpQCT
- BMD by DXA scans 12 months
- All HRpQCT parameters
- Bone biomarkers
- PRO and quality of life

BRITTLE MOUSE MODEL – TREATMENT WITH BPS-804

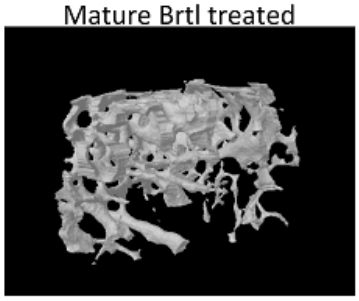
Mature Brtl control



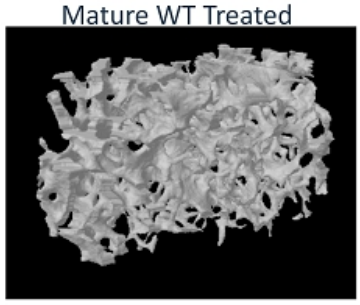
Mature WT Control



Mature Brtl treated



Mature WT Treated

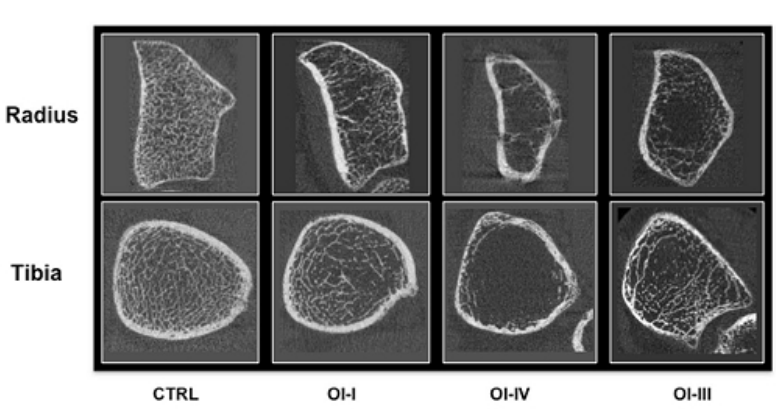


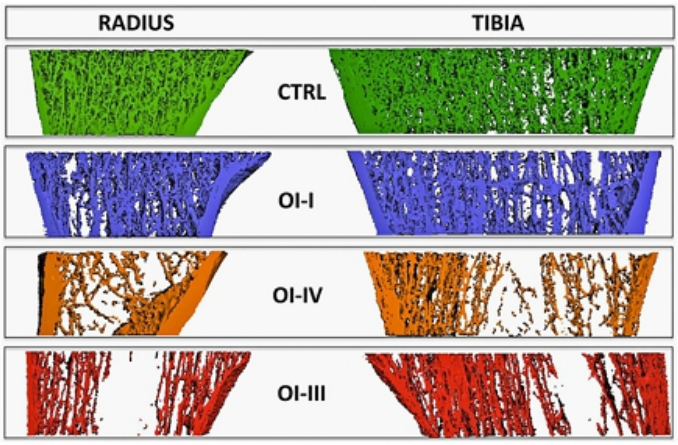
THE OFLEY STUDY AND HRPQCT

- Prospective study investigating the prediction of fracture (Fx) by bone microarchitecture assessed by HRpQCT in postmenopausal women
- HRpQCT used to measure microarchitecture at the distal radius and tibia in 589 women (mean 68 years old)
- During 9 year follow up 135 women sustained a fracture including 81 women with a major osteoporotic fracture
- After adjusting for age women who had fractures had significantly lower total and trabecular volumetric densities (vBMD) at both sites as determined by HRpQCT
- OI patients have fewer and thinner trabeculae and increased cortical porosity

Bone Microarchitecture Assessed by HR-pQCT as Predictor of Fracture Risk in Postmenopausal Women Sornay-Rendu et al JBMR March 09 2017

HRPQCT SCANS OF PATIENTS WITH OI AND CONTROLS





BPS-804 REGULATORY UPDATE

Orphan drug status EU and US

PIP agreed with EMA

Admitted to the Adaptive Pathway and PRIME in the EU

- Ongoing interactive dialogue with EMA and HTA's
- Real world evidence/registries

Plan to engage with the FDA on extending the pediatric Phase 3 trial to sites in the United States

Will initiate the study in EU and Canada

- **Validation of HRpQCT in the pediatric study**
- **Once validated, the use of HRpQCT data may be sufficient to support submission of a CMA to the EMA for the treatment of adults with OI in the EU**
- **CMC plan under review with the regulators**

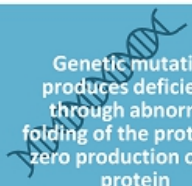

MPH-966
ALVELESTAT
(ACQUIRED FROM ASTRA ZENECA IN 2017)

ALPHA-1 ANTITRYPSIN DEFICIENCY (AATD)

An orphan genetic disorder that results in pulmonary disease

Estimated prevalence of target patients (PiZZ and Nulls)

North America	Europe
~50,000	~60,000



Genetic mutation produces deficiency through abnormal folding of the protein or zero production of the protein

Mutations in SERPINA1 gene chromosome 14

Only homozygotes (ZZ's) and Nulls have severe disease

Symptoms:

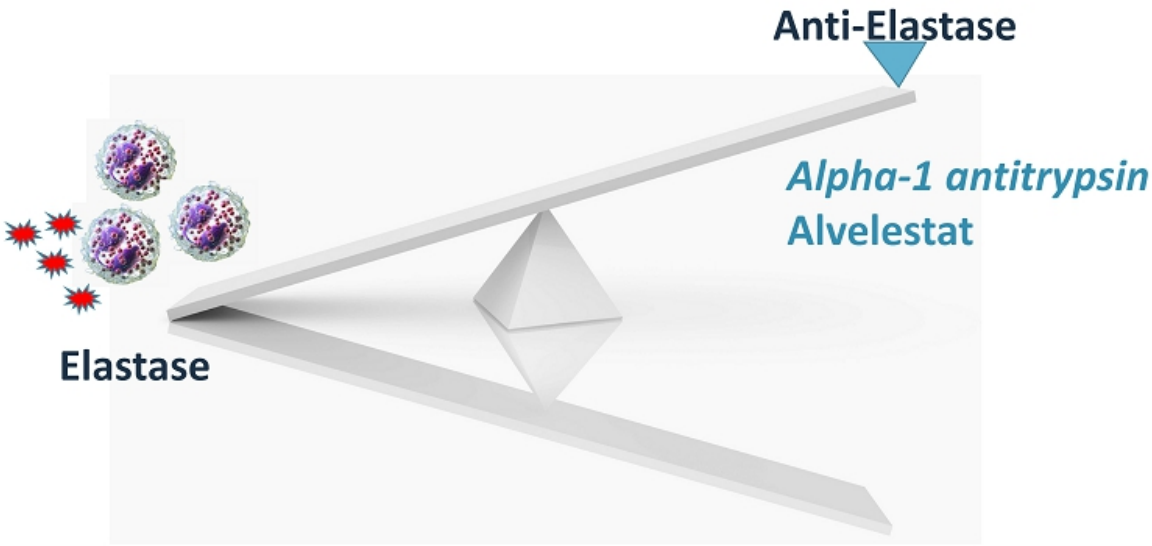
- Age 20-50 - wheeze and reduced exercise tolerance
- PiZZ and Null adults develop early onset emphysema
- Some mutations can cause cirrhosis in children
- Reduced life expectancy

Current treatment is weekly IV alpha 1 antitrypsin protein – annual cost up to $150k ~9000 patients

MPH-966 in 1000 patients in 4 COPD studies and a cystic fibrosis and bronchiectasis study (positive)

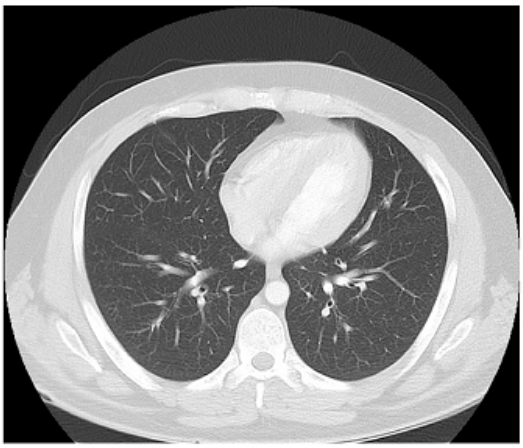
Francisco et al (2012) Rare alpha-1-antitrypsin variants: are they really so rare? Therapeutic Advances in Respiratory Disease January 30
Luisetti et al (2004) α_1-Antitrypsin deficiency - 1: Epidemiology of α_1-antitrypsin deficiency Thorax 59:164-169

RESTORING THE BALANCE IN ALPHA-1 LUNG DISEASE WITH NEUTROPHIL ELASTASE INHIBITOR - ALVELESTAT

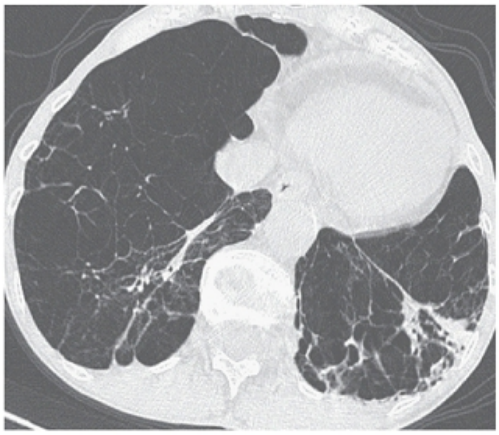


CT IMAGES SHOWING THE LUNG OF AN ALPHA-1 ANTITRYPSIN DEFICIENT PATIENT

Normal lung



AATD lung



MPH-966– RELEVANT CLINICAL STUDIES TO-DATE

Bronchiectasis

- Total of 38 patients in one study
- 22 patients treated for 4 weeks with 60mg BD
- Statistically significant improvement in FEV1 and clinically meaningful improvement in SVC (slow vital capacity)

Cystic Fibrosis

- Total of 56 patients in one study
- 27 patients treated for 4 weeks with 60mg BD
- Statistically significant reduction in the biomarker urine desmosine

- **In addition total of 970 patients across four COPD studies**

MPH-966 – PROOF OF CONCEPT PHASE 2 STUDY

- Three-arm study with two different dosing arms versus placebo
- Planned enrolment- 165 patients completed
- Treatment duration- 12 weeks
- FPI in November 2018

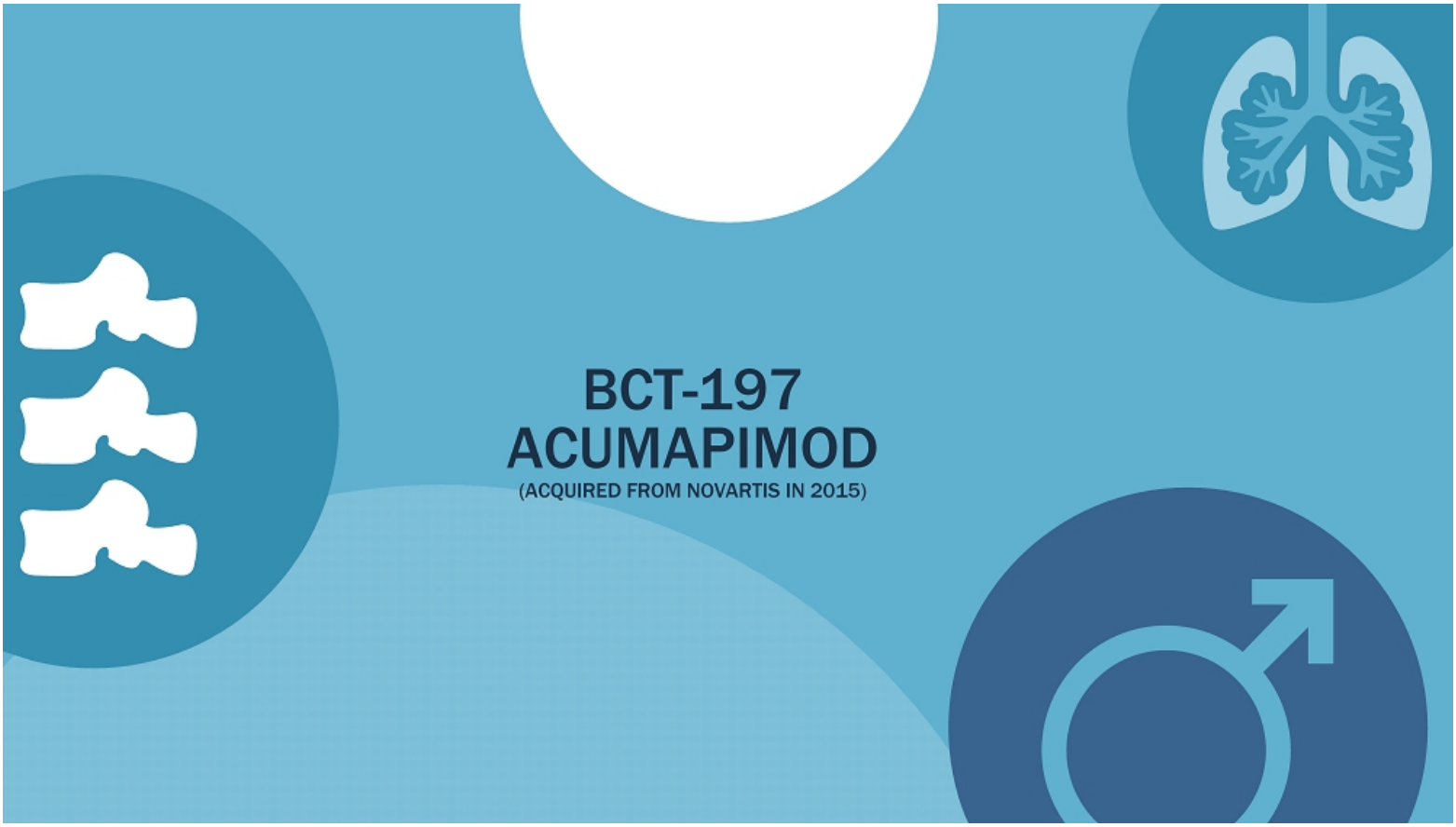
Primary Endpoint

- Desmosine - biomarker shown to have correlation with lung density by CT scan[1]

Proposed Patient Population

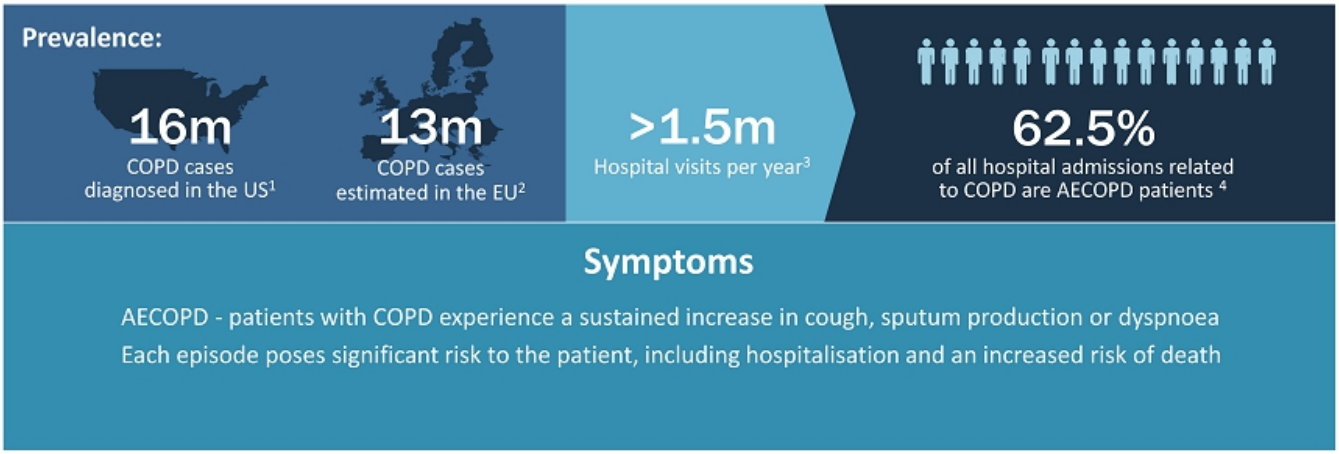
- CT scan - emphysema
- Confirmed genotype (PiZZ or Null)
- FEV1>25%

1) A biomarker in KAMADA's RAPID study. Ref: Ma S, Lin YY, Cantor JO, et al. The effect of alpha-1 proteinase inhibitor on biomarkers of elastin degradation in alpha-1 antitrypsin deficiency: An analysis of the RAPID/RAPID Extension trials. Chronic Obstr Pulm Dis. 2017; 4(1): 34-44.


BCT-197
ACUMAPIMOD
(ACQUIRED FROM NOVARTIS IN 2015)

ACUTE EXACERBATIONS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (AECOPD)

COPD includes chronic bronchitis, emphysema and some forms of bronchiectasis



Symptoms

AECOPD - patients with COPD experience a sustained increase in cough, sputum production or dyspnoea

Each episode poses significant risk to the patient, including hospitalisation and an increased risk of death

1) National Heart, Lung and Blood Institute (accessed in Nov 2017)
2) COPD Coalition
3) Mannino et al (2002) MMWR Surveill Summ 51: p1-6
4) Wier et al (2011) AHRQ, HCUP, Statistical Brief #106 p1-11

BCT-197 MET THE PRIMARY END-POINT IN THE PHASE 2 TRIAL

TOTAL OF 282 PATIENTS

PRIMARY ENDPOINT (CHANGE IN FEV1 FROM BASELINE TO DAY 7 WITHIN THE TREATMENT GROUP)

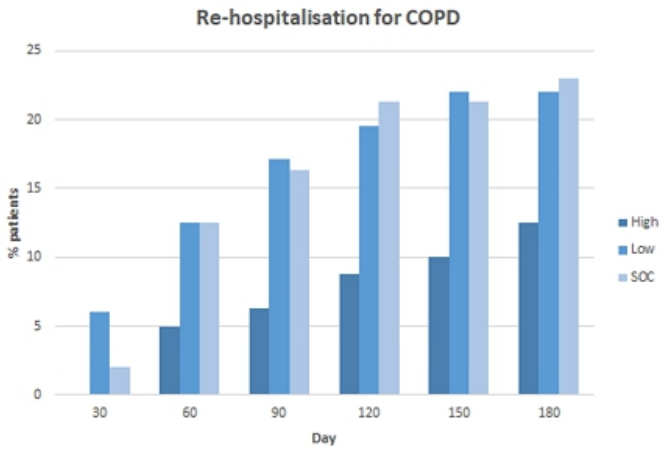
Primary endpoint met on an ITT basis for both high and low dose regimens (p= 0.012, p ≤ 0.001) versus no significant change from baseline (p=0.102) for Standard of Care plus placebo

POSITIVE CLINICAL AND HEALTH ECONOMIC OUTCOMES SUPPORTED BY OTHER SECONDARY MEASURES

Statistically significant reduction of more than 50% (p ≤ 0.027 to 0.05) in the number of clinical treatment failures compared to standard of care plus placebo as measured by the number of re hospitalisations for the treatment of COPD at days 90 through 150

SAFETY

BCT-197 was reported to be safe and well tolerated with adverse events in line with expectations for this patient population




BGS-649
LEFLUTROZOLE
(ACQUIRED FROM NOVARTIS IN 2015)

HYPOGONADOTROPIC HYPOGONADISM (HH) IN OBESE MEN

A highly prevalent clinical syndrome that results from inadequate levels of testosterone

Prevalence:

~35.5%
Adult males in the US are obese [1]

~21.9%
Adult males in the EU are obese [1]

~15.8%
HH prevalence in obese men [2]

12 million*
obese men with HH in the US and the EU

*estimate

Symptoms:

- Reduced or loss of libido
- Erectile dysfunction
- Fatigue
- Impaired physical endurance and strength
- Loss of vitality/motivation

Low current treatment rates <13% in the US and lower in Europe [3]

Androgel average annual pricing is approximately $7,000 per year (market leader)

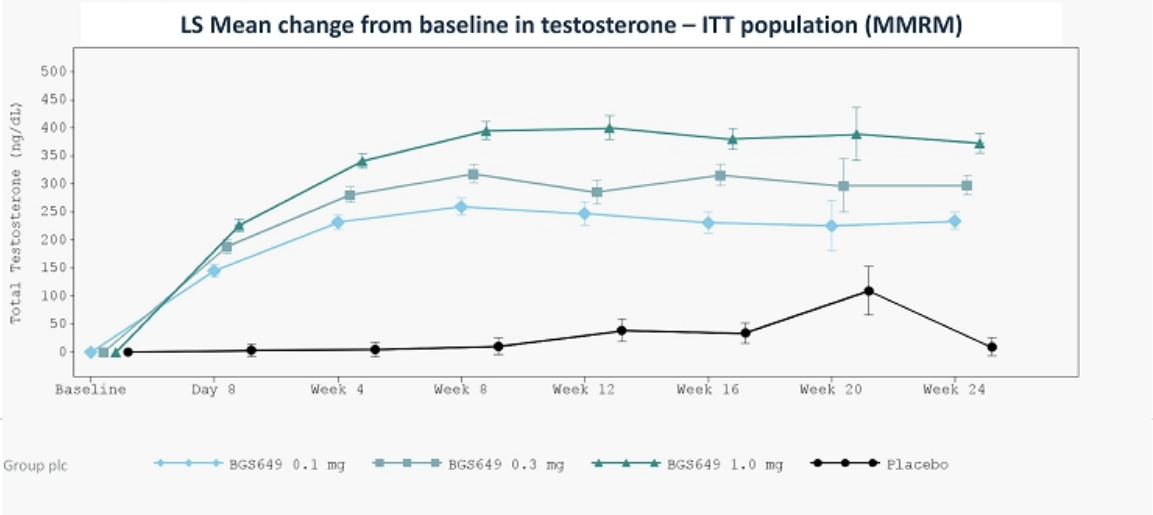
1) Based on 2016 WHO estimates
2) Hofstra et al (2008) Netherlands J. Med, 66 p103-109
3) Update on Hypogonadism and Testosterone Replacement Therapy (2011) Chapter in Practicing Clinical Exchange p1-15

BGS-649 MET THE PRIMARY END POINT IN THE PHASE 2B TRIAL

TOTAL OF 271 PATIENTS

- **PRIMARY ENDPOINT**: normalisation of testosterone @ 24 wk in >75% subjects
  - Met at all three doses p<0.001 versus placebo
  - No patient >1500 ng/dl at any time point, in the treatment groups
- **SECONDARY ENDPOINT**: normalisation of testosterone @ 24 wk in >90% subjects met in top two doses (p<0.001) with 88% of subjects on low dose

Mereo BioPharma 2 Ltd
Final Unblinded TFLs
Page 1 of 1
Final Unblinded TFLs



BGS-649 MET THE SECONDARY END POINTS IN THE PHASE 2B TRIAL

Total of 271 patients

SECONDARY ENDPOINTS

Change in fertility hormones (LH and FSH) from baseline at 24 weeks
met by all three doses p<0.001 versus placebo

EXPLORATORY ENDPOINTS

Improvement in total motile sperm count across all three doses versus placebo with statistical significance attained for high dose

Positive trend on reduction of fatigue in the exploratory patient reported outcomes (PROs) at 8-12 weeks treatment

PHASE 2b EXTENSION STUDY (143 patients)

No doses met lower bound (95% CI) of pre-specified safety criterion of a > 3% reduction in lumbar spine, hip or femoral neck BMD after 48 weeks.

No shift into osteopenia or osteoporosis, no development of new osteopenia.

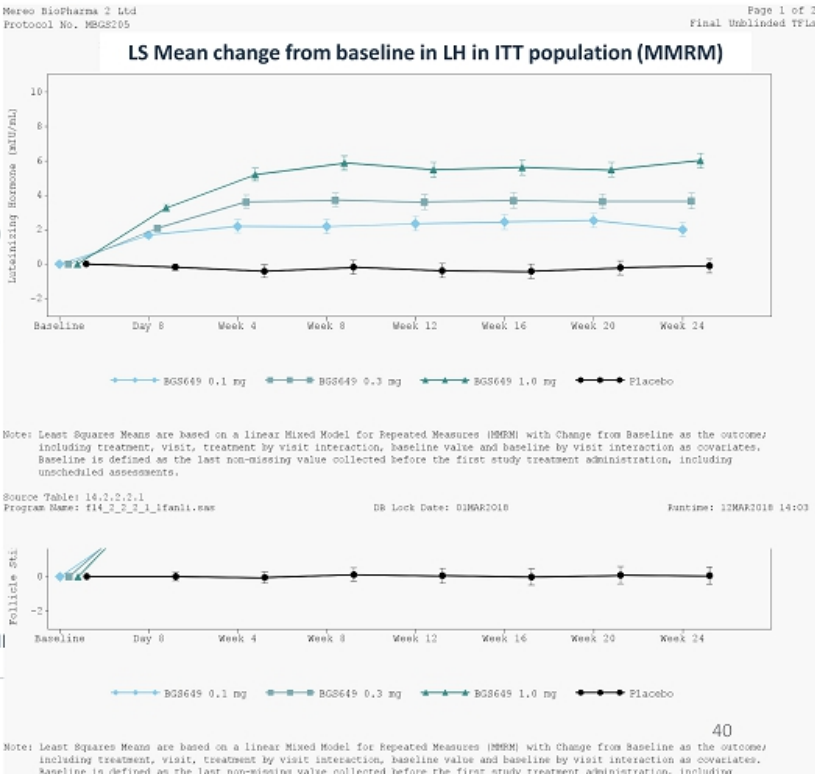
Efficacy data consistent with Phase 2b:

- all three doses normalised testosterone in 75% of patients
- all three doses normalised testosterone in 90% of patients
- all three doses increased LH and FSH

Safety

Reported to be safe and well tolerated during the study.

Increased incidence of elevated haematocrit levels was noted and in the higher doses small increases in blood pressure, both consistent with increasing testosterone levels



Note: Least Squares Means are based on a linear Mixed Model for Repeated Measures (MMRM) with Change from Baseline as the outcome, including treatment, visit, treatment by visit interaction, baseline value and baseline by visit interaction as covariates.

1H 2018 MEREO FINANCIAL RESULTS

FINANCIAL HIGHLIGHTS

Total financing raised since launch

£126 million*

- £15m (gross) placing completed in April 2017
- £20m debt facility agreed in August, 2017 fully drawn as at December 31, 2017

**(gross including debt facility)*

Novartis convertible debt balance at June 30 2018

£2.3 million

Cash and short term deposits and short term investments at June 30 2018:

£36.9 million*

**unaudited balances excludes FY'17R&D tax credit £8.2m*

R&D spend in 1H 2018

£10.9 million

(£10.5m on non-GAAP adjusted basis)

Admin Expenses in 1H 2018

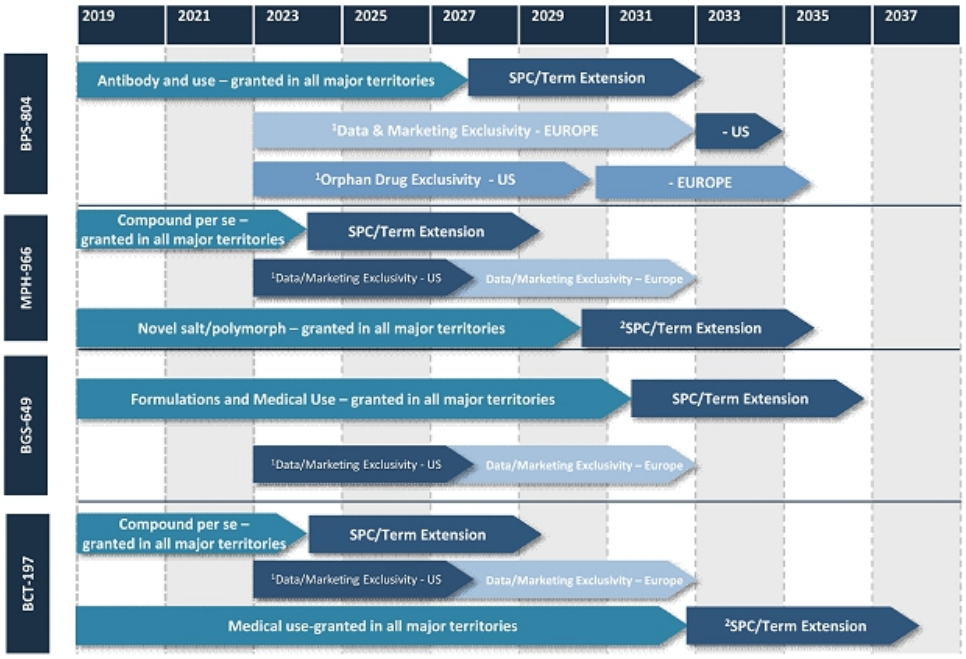
£7.1 million

(£3.8m on non-GAAP adjusted basis)

Funded through to key clinical milestones

APPENDIX

ROBUST INTELLECTUAL PROPERTY PORTFOLIO



IP significantly expanded with orphan drug status in US and EU

Extended IP protection with additional salt/polymorph patent

Additional formulation and methods of use filed

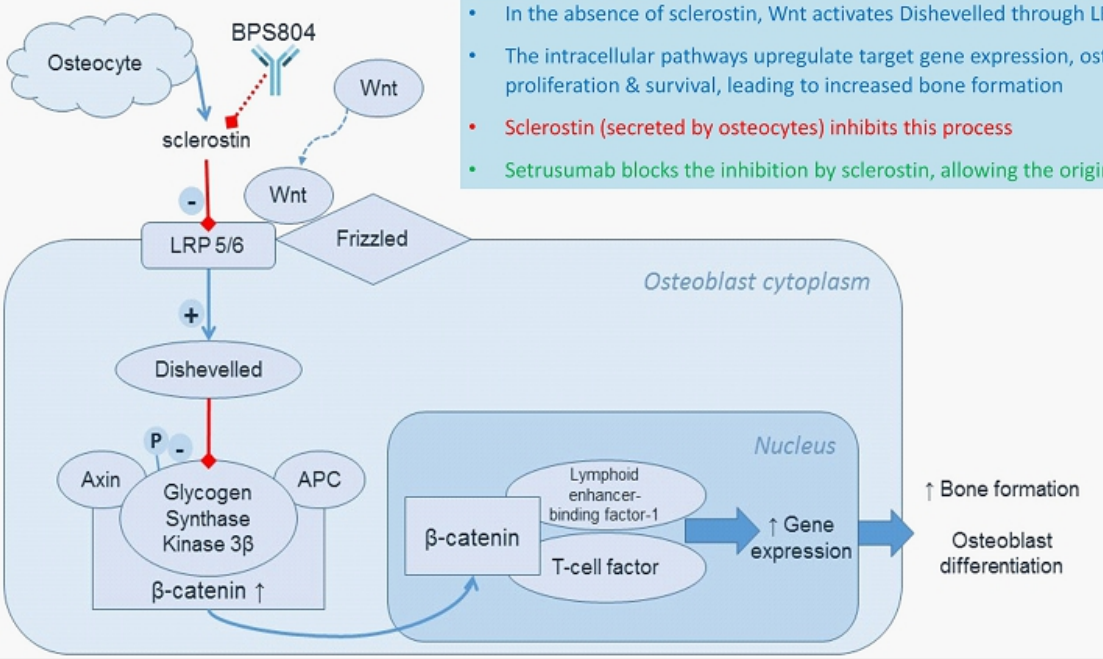
Extended IP protection with additional medical use patent

1. Dependant on MA date
2. Alternative SPC extension

GUIDANCE ON TERMS OF PRODUCT ACQUISITION AND LICENSE AGREEMENTS

Transaction	Mereo Entitlement	NVS/AZ Entitlement
Licence of product in territory or worldwide	Majority percent of licensing income (upfront, milestones and royalties)	Share of licensing income (upfront, milestones and royalties)
Commercialisation by Mereo (territory or worldwide)	Product sales	Ascending tiered royalties typical for Phase 2 products and in the case of AZ cash milestones on sales
Sale of Mereo subsidiary	Proceeds from sale	Buyer steps into Mereo's shoes re (i) royalties and any milestones on any products directly commercialised by Buyer (ii) sharing any licensing income
Sale of Mereo Group	Exit for shareholders (NVS and AZ equity)	Buyer steps into Mereo's shoes re (i) royalties and/or milestones on any products directly commercialised by Buyer (ii) sharing any licensing income
Option to acquire MPH966 outright		Equity and cash milestones including successful POC study and initiation of pivotal study

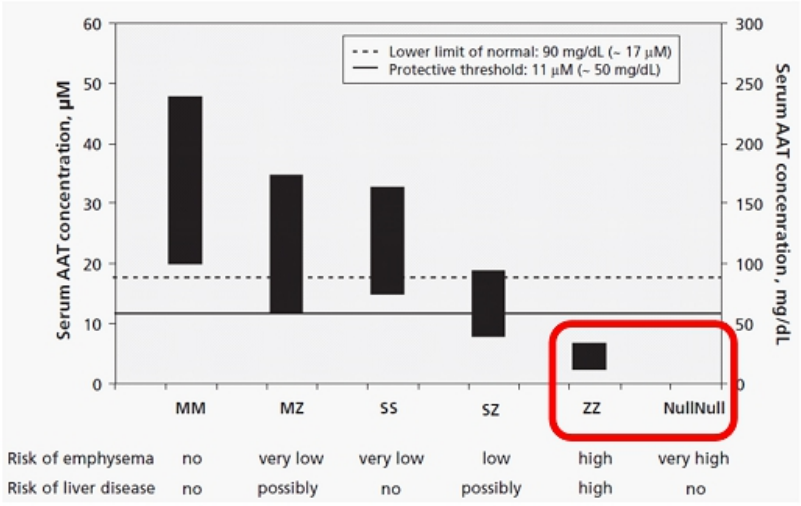
SETRUSUMAB: MECHANISM OF ACTION



- In the absence of sclerostin, Wnt activates Dishevelled through LRP 5/6/Frizzled
- The intracellular pathways upregulate target gene expression, osteoblast differentiation, proliferation & survival, leading to increased bone formation
- Sclerostin (secreted by osteocytes) inhibits this process
- Setrusumab blocks the inhibition by sclerostin, allowing the original pathway to proceed

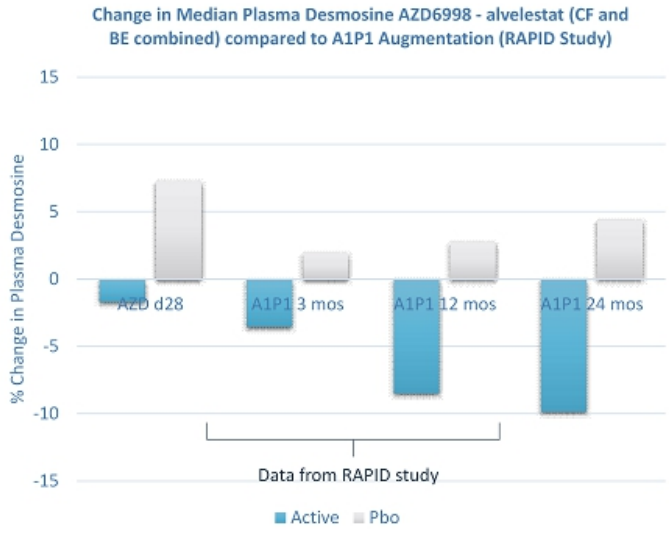
ALPHA 1 ANTITRYPSIN DEFICIENCY CURRENT TREATMENT

- Routine COPD medications
- Augmentation therapy:
  - Plasma derived alpha 1 anti trypsin
  - Weekly one hour IV infusion
  - Approval based on restoration of A1AT to a threshold level NOT clinical outcome data
  - Cost $150k pa
  - ~9,000 patients treated
- Surgery – lung volume reduction surgery or transplant



[1]Brode *et al* Alpha-1 antitrypsin deficiency: a commonly overlooked cause of lung disease. CMAJ, September 4, 2012, 184(12)

LONG TERM AUGMENTATION AND SHORT TERM TREATMENT WITH AZD-9668 –IMPACT ON DESMOSINE

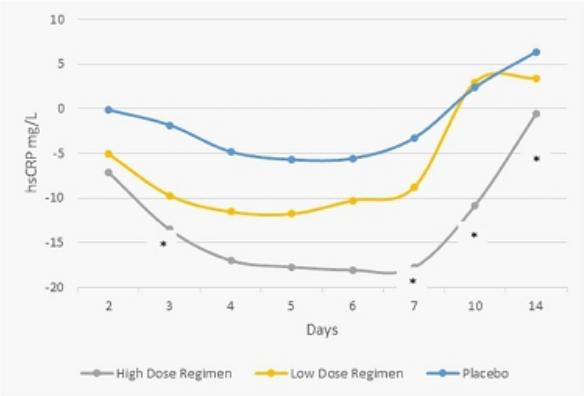


RAPID study - 2 years of augmentation in AATD patients

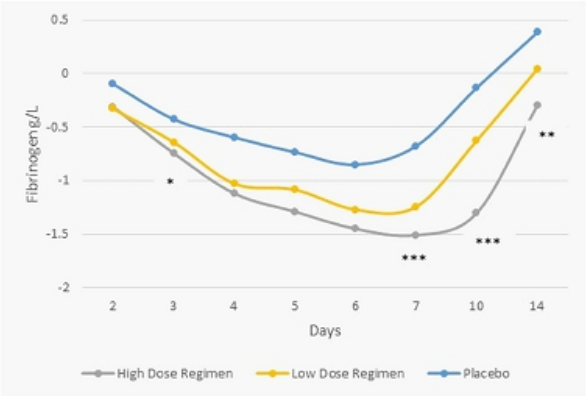
- Reduced loss of lung density:
  - Total lung capacity (TLC) -1.45g/l/year vs -2.19 g/l/year (P=0.03)
- Post hoc analysis demonstrated correlation in change in desmosine vs lung density (reduced desmosine – less loss of lung density)

BCT-197 RESULTED IN A SIGNIFICANT REDUCTION IN THE INFLAMMATORY MARKERS HSCRP AND FIBRINOGEN IN THE FIRST 14 DAYS DURING THE INDEX EXACERBATION

- Dose – dependent, statistically significant reductions in key inflammatory markers hsCRP and fibrinogen
- Suppression of hsCRP maintained through the 26-week observation period



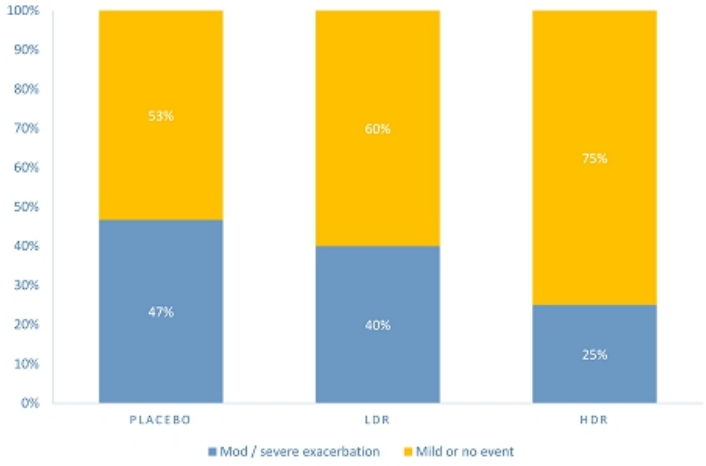
P- values compared to placebo
*= <0.05 NS= p>0.05



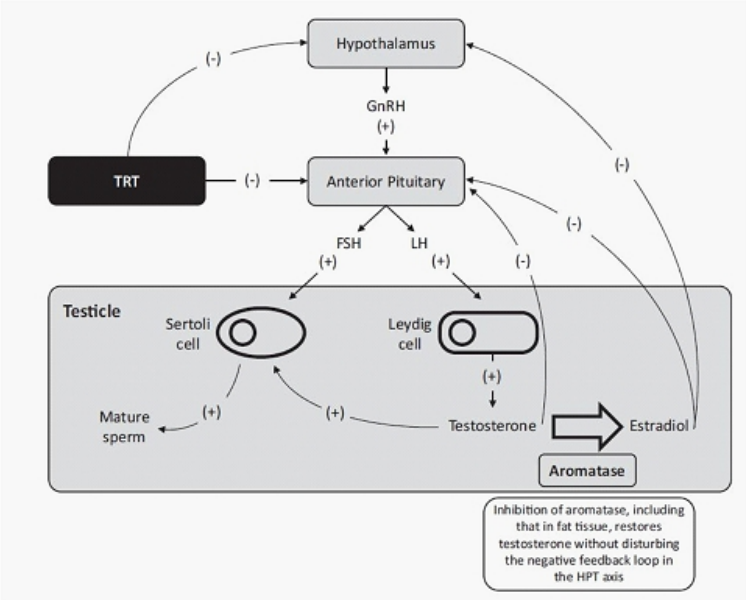
P- values compared to placebo
*= <0.05 **=<0.02 ***=<0.01

BCT197 REDUCED THE PERCENTAGE OF PATIENTS WHO SUFFERED A SUBSEQUENT EXACERBATION IN FREQUENT EXACERBATORS

- Effect on moderate/severe exacerbations best seen in patients with >= 2 exacerbations / year
- Patient population with highest unmet need



BGS-649 (HH): HPT FEEDBACK LOOP PROCESS




H1 2018 FINANCIAL RESULTS

SUMMARY OF FINANCIAL RESULTS

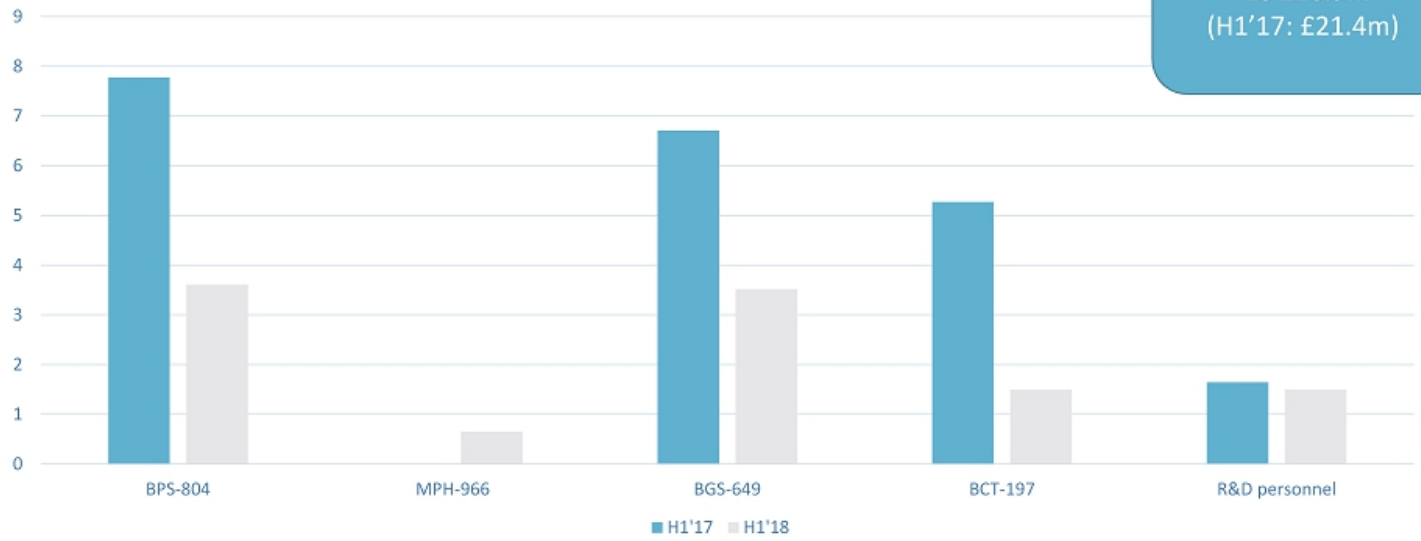
FOR THE SIX MONTHS ENDED JUNE, 30 2018

H1'18	H1'18 £'000	Share based payments £'000	Fx £'000	One off legal costs £'000	H1'2018 Non-GAAP £'000	H1'2017 Non-GAAP £'000
Development costs	(10,864)	337	-		**(10,527)**	(20,823)
Admin expenses	(7,102)	1,080		2,235	**(3,787)**	(2,982)
Operating loss	(17,966)				**(14,314)**	(23,805)
Finance charge	(1,386)		87		**(1,299)**	199
Loss before tax	(19,352)				**(15,613)**	(23,606)
Tax	2,365				**2,365**	4,546
Net Loss	(16,988)	1,417	87	2,235	**(13,249)**	(19,060)
EPS	24 pence				**19 pence**	28 pence
Net cash resources					**36, 912***	56,575

* Excludes FY '17 R&D tax credit due of £8.2m

R&D COSTS BY SEGMENT (£'M)

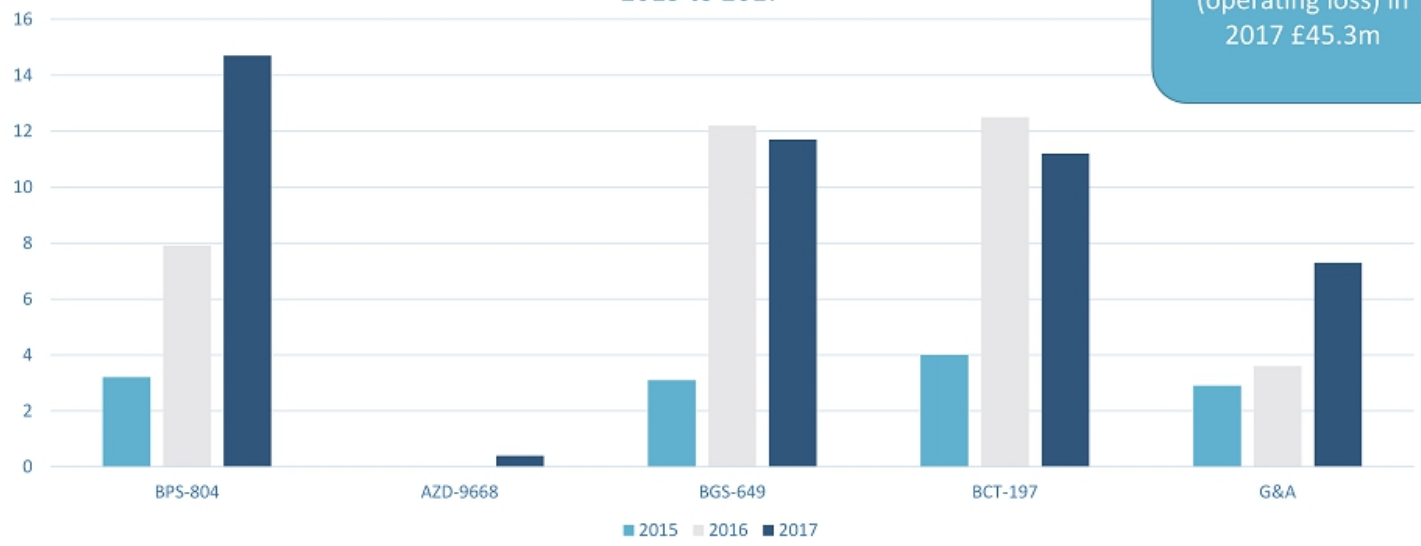
H1'17 vs H1 '18



Total R&D costs H1 '18 £10.9m (H1'17: £21.4m)

TOTAL OPERATING COSTS BY SEGMENT (£'M)

2015 to 2017



Total spend (operating loss) in 2017 £45.3m

Mereo BioPharma Group plc

One Cavendish Place
London, W1G 0QF

UK

+44 (0)333 0237 300