ONCOPEPTIDES OPERATIONAL UPDATE

Q2 2020, August 26, 2020

oncopeptides

DISCLAIMER

IMPORTANT: You must read the following before continuing. The following applies to this document, the oral presentation of the information in this document by Oncopeptides AB (the "Company") or any person on behalf of the Company, and any question-and-answer session that follows the oral presentation (collectively, the "Information"). In accessing the Information, you agree to be bound by the following terms and conditions.

The Information is confidential and may not be reproduced, redistributed, published or passed on to any other person, directly or indirectly, in whole or in part, for any purpose. This document may not be removed from the premises. If this document has been received in error, it must be returned immediately to the Company.

The Information is not intended for potential investors and does not constitute or form part of, and should not be construed as an offer or the solicitation of an offer to subscribe for or purchase securities of the Company, and nothing contained therein shall form the basis of or be relied on in connection with any contract or commitment whatsoever. This document and its contents may not be viewed by persons within the United States or "U.S. Persons" (as defined in Regulation S under the Securities Act of 1933, as amended (the "Securities Act") unless they are qualified institutional buyers "QIBs" as defined in Rule 144A under the Securities Act. By accessing the Information, you represent that you are (i): a non-U.S. person that is outside the United States or (ii) a QIB. This document and its contents may not be viewed by persons within the United Kingdom unless they are persons with professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 as amended (the "Order"), or high net worth entities falling within Article 49(2)(a) to (d) of the Order (each a "Relevant Person"). By accessing the Information, you represent that you are: (i) outside the United Kingdom or (ii) a Relevant Person.

The Information has been prepared by the Company, and no other party accepts any responsibility whatsoever, or makes any representation or warranty, express or implied, for the contents of the Information, including its accuracy, completeness or verification or for any other statement made or purported to be made in connection with the Company and nothing in this document or at this presentation shall be relied upon as a promise or representation in this respect, whether as to the past or the future.

The Information contains forward-looking statements. All statements other than statements of historical fact included in the Information are forward-looking statements. Forward-looking statements give the Company's current expectations and projections relating to its financial condition, results of operations, plans, objectives, future performance and business. These statements may include, without limitation, any statements preceded by, followed by or including words such as "target," "believe," "expect," "aim," "intend," "may," "anticipate," "estimate," "plan," "project," "will," "can have," "likely," "should," "would," "could" and other words and terms of similar meaning or the negative thereof. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors beyond the Company's control that could cause the Company's actual results, performance or achievements to be materially different from the expected results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding the Company's present and future business strategies and the environment in which it will operate in the future.

No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the Information or the opinions contained therein. The Information has not been independently verified and will not be updated. The Information, including but not limited to forward-looking statements, applies only as of the date of this document and is not intended to give any assurances as to future results. The Company expressly disclaims any obligation or undertaking to disseminate any updates or revisions to the Information, including any financial data or forward-looking statements, and will not publicly release any revisions it may make to the Information that may result from any change in the Company's expectations, any change in events, conditions or circumstances on which these forward-looking statements are based, or other events or circumstances arising after the date of this document. Market data used in the Information not attributed to a specific source are estimates of the Company and have not been independently verified.

oncopeptides

OPERATIONAL UPDATE

MARTY J DUVALL
Chief Executive Officer

MARTY J DUVALL
PROFESSIONAL EXPERIENCE

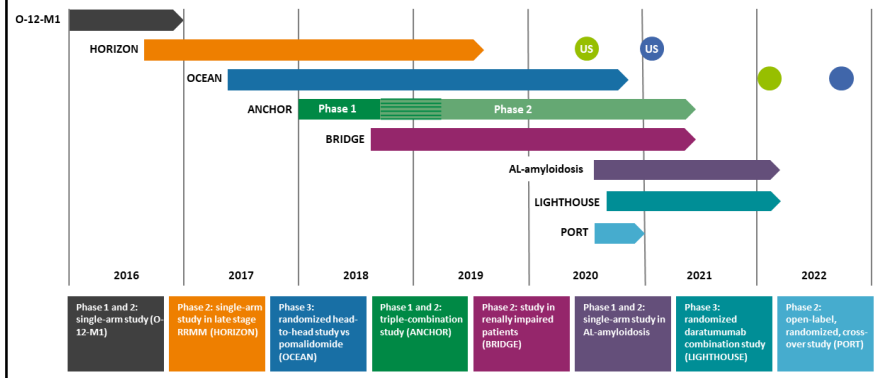
- Executive Leadership experience from public and private companies; CEO, CCO, SVP, Global Commercial and Marketing roles
- Pharma and biotech experience across geographies; Aventis (Sanofi), MGI (Eisai), Abraxis (Celgene), Merck (MSD), ARIAD (Takeda) and Tocagen (Forte)
- Broad and deep oncology experience including; hematology (e.g. MDS, CTCL, CML, AML, MM, etc.), and solid tumors (e.g. breast, lung, prostate, H/N, gastric, GBM, etc.), biologics, small molecules, gene therapy and supportive care
- Launch experience; Taxotere (US, Europe and Asia), Abraxane (China), Dacogen (US and Europe), Sylatron (Global), Iclusig (US, Europe, and Asia) and Alunbrig

TAXOTERE (docetaxel) Injection
Aloxi palonosetron HCl injection
Abraxane nanoparticle albumin bound paclitaxel
Temodar temozolomide
Zolinza [vorinostat] capsule
ICLUSIG (ponatinib) tablets
GLIADEL WAFER (carmustine implant) 7.7 mg carmustine/wafer
DACOGEN decitabine for injection
Anzemet dolasetron mesylate injection/tablets
EMEND (aprepitant, MSD)
Sylatron peginterferon alfa-2b
ALUNBRIG BRIGATINIB

oncopeptides

TRANSFORMATION OF ONCOPEPTIDES
OUR GROWTH STRATEGY

Discovery and IND generation



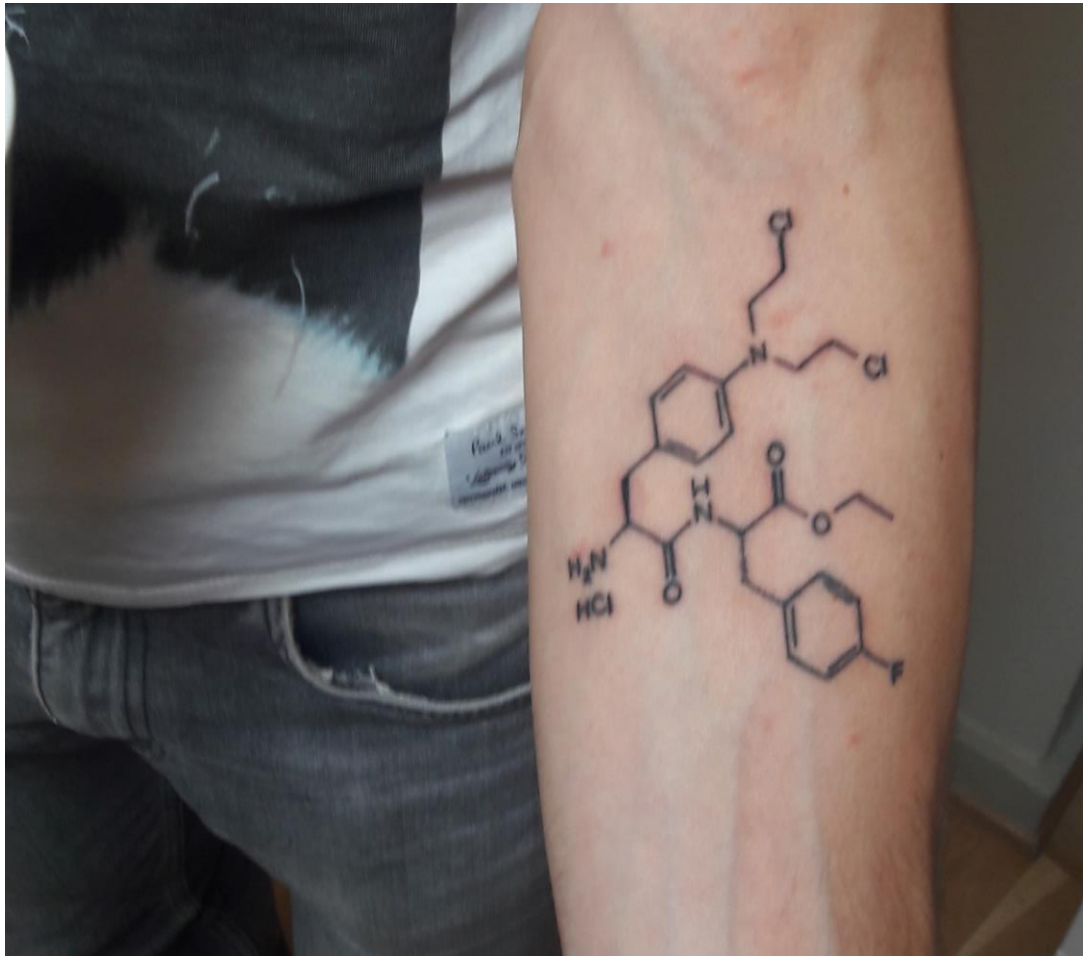
Portfolio Development and Life Cycle Management

Launch investment and geographic expansion

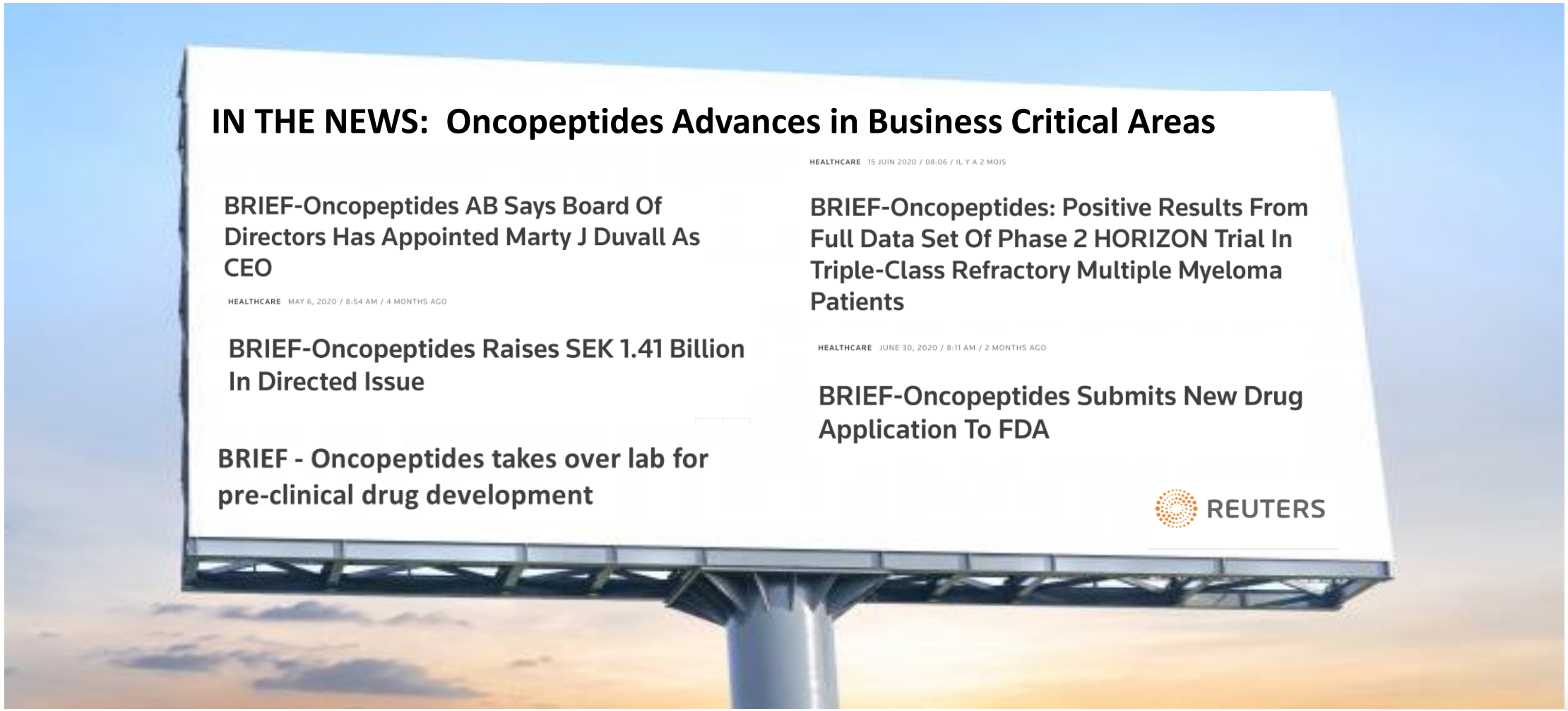
MELFLUFEN IS A FIRST IN CLASS PRODUCT

APPLICATION SUBMITTED FOR ACCELERATED APPROVAL IN THE US

Melflufen is a first in class peptide-drug conjugate (PDC) that targets aminopeptidases and rapidly releases alkylating agents into tumor cells

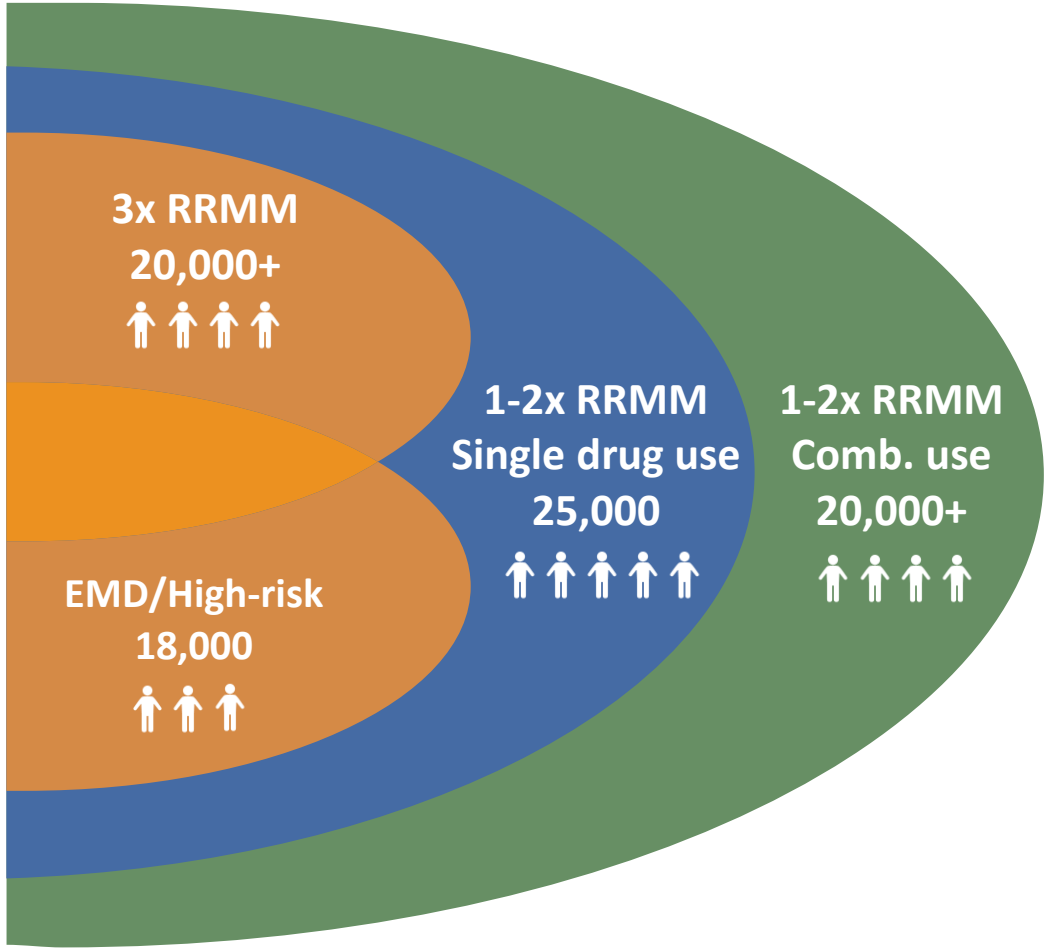


SUMMARY OF Q2-2020
VALUE GENERATION AND RISK REDUCTION



SIGNIFICANT MARKET OPPORTUNITIES

US MARKET



New data to drive label expansion

HORIZON — Anticipated label in triple-class refractory patients

OCEAN — Head-to-head superiority study with the most used regimen in RRMM

ANCHOR / LIGHTHOUSE — Combination with PI or anti-CD38 opens up 2L+ combination treatment

oncopeptides

DISEASE AWARENESS AND EDUCATION

PAVES THE WAY FOR A NEW CLASS OF DRUG

oncopeptides

REGULATORY TIMELINES
NDA REVIEW PROCESS FOR MELFLUFEN

- US FDA Submission* – June 30
- Notification of File Acceptance – August 29
- 90-day Safety Update – September
- Review and label negotiations – Fall
- PDUFA (priority review)** – February 2021
- PDUFA (standard review) – June 2021

* Evaluation underway for regulatory timelines in other key geographies
**Mid-Cycle Review Meeting in November is driving our “launch readiness” timeline of mid-November

oncopeptides

PASSIONATE TO MAKE A DIFFERENCE FOR PATIENTS

BUILDING A PATIENT FOCUSED ORGANIZATION

"Ensuring that every patient who potentially could benefit from melflufen gains access"

Marty J Duvall

oncopeptides

PAVING THE WAY FOR A SUCCESSFUL LAUNCH

GLOBAL ORGANIZATION WITH SIGNIFICANT LAUNCH EXPERIENCE

Joe Horvat
President, NA

- 24 Years Pharmaceutical/ Biotech Experience
- Merck KGaA, BMS
- US and Global Commercial Leadership (EMD Serono)
- 12 years of oncology experience

Paula O'Connor, MD
Head of Med Affairs US

- Medical Oncologist
- 17 Years Pharmaceutical/ Biotech Experience
- Genentech, Medivation, Onyx, Clovis
- 30 years of oncology experience

Mohamed Ladha
Head of Commercial US

- 17 Years Pharmaceutical/ Biotech Experience
- Schering Plough, Merck, Pfizer, ARIAD/Takeda
- US and Global Commercial Leadership
- 17 years of oncology experience

An accomplished US Medical Affairs and Commercial Team with nearly 100 oncology product launches

Bristol-Myers Squibb · Pfizer · MERCK · AstraZeneca · Genentech (A Member of the Roche Group) · Roche · Celgene · SANOFI · Takeda · Aventis · EMD SERONO · genzyme · ONYX PHARMACEUTICALS · SeattleGenetics · EXELIS · Abraxis BioScience · MEDIVATION · CLOVIS ONCOLOGY · TESARO · Schering-Plough · Tocagen · ARIAD · AMGEN · pharmacyclics (An AbbVie Company) · agios

oncopeptides

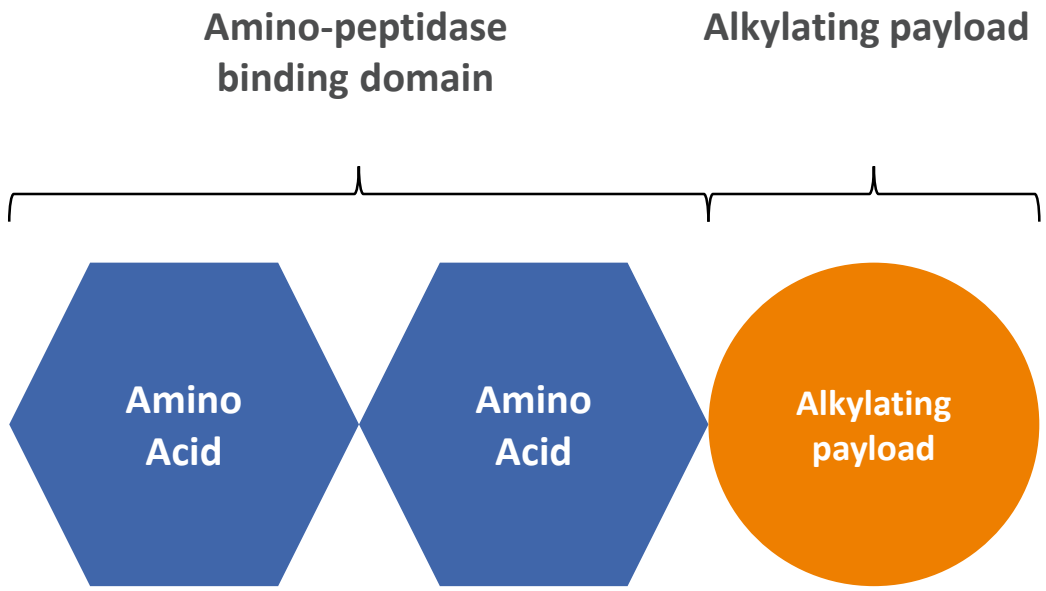

oncopeptides

MELFLUFEN AND THE PDC PLATFORM

JAKOB LINDBERG
Chief Scientific Officer

oncopeptides

MELFLUFEN - A FIRST IN CLASS DRUG CANDIDATE
A PEPTIDE-DRUG CONJUGATE TARGETING AMINOPEPTIDASES



- **Increased potency** of linked toxin due to aminopeptidase targeting with subsequent hydrolysis
- **Potency increase** over the course of disease, i.e. with **degree of malignancy**
- **Circumvent** significant amount of **transport associated resistance development**
- **Circumvent** significant amount of **programmed cell-death related resistance developed**, e.g. p53 deletion or mutation
- **Aminopeptidase targeting** enables **additional beneficial activity** to direct cytotoxic effect, e.g. anti-angiogenesis and metastatic process

oncopeptides

AMINOPEPTIDASES ARE EXCELLENT CANCER TARGETS

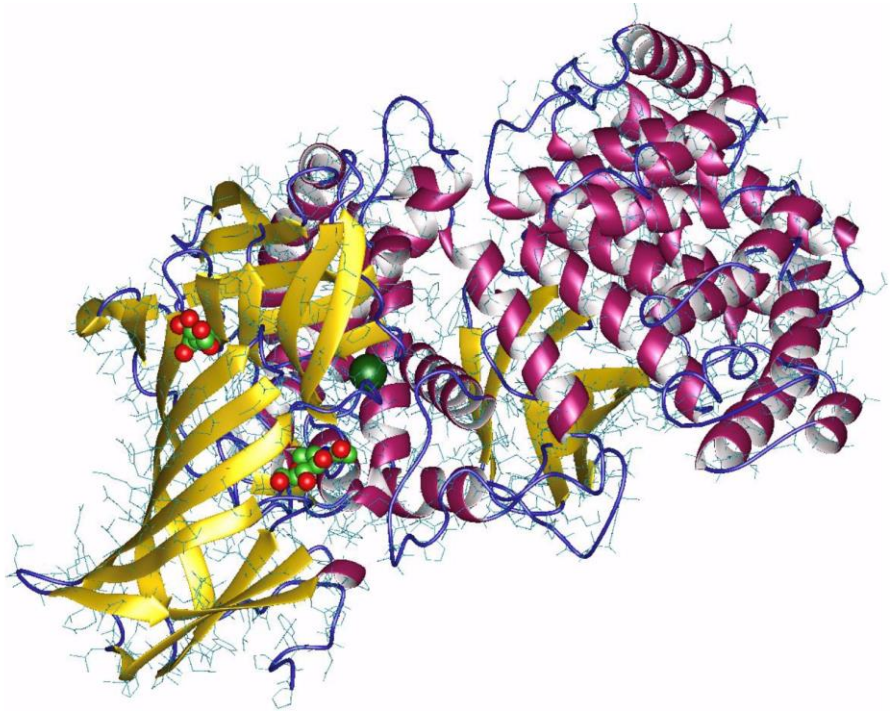
KEY ROLE IN CANCER CELL SURVIVAL, PROLIFERATION AND MIGRATION

Amino-peptidases play a key role in protein homeostasis, and in other critical functions such as cell-cycle progression, programmed cell death and cell migration

I Amino-peptidases are over-expressed in cancer cells

II Amino-peptidase expression is increased between diagnosis and relapse in patient cancer samples

III Amino-peptidase expression correlates with mutational burden and poor clinical outcome

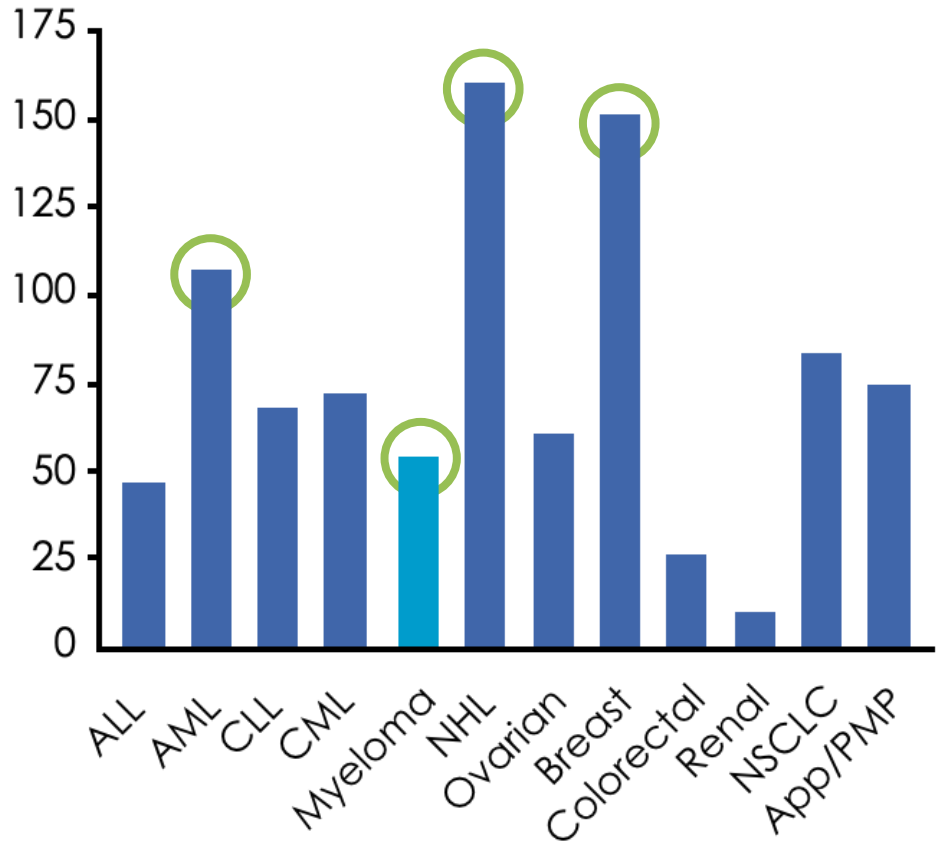


Note: Structure from Kochan et al, PNAS 108 (19): 7745–50.

oncopeptides

PDC PLATFORM
THERAPEUTIC ACTIVITY IN MOST CANCERS

PDC Potentiation

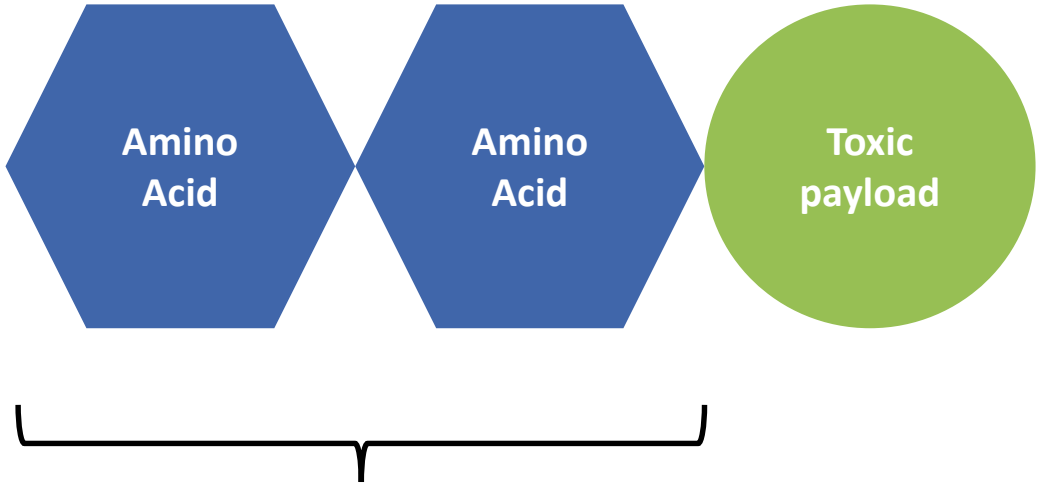


- Melflufen is focused on multiple myeloma and AL-amyloidosis
- New molecules are based on PDC platform
- Potential broadening of indications in AML, Non-Hodgkin Lymphoma and breast cancer

oncopeptides

PEPTIDE DRUG CONJUGATE TECHNOLOGY

VERSATILE PLATFORM WITH MULTIPLE VENUES FOR FUTURE DEVELOPMENT

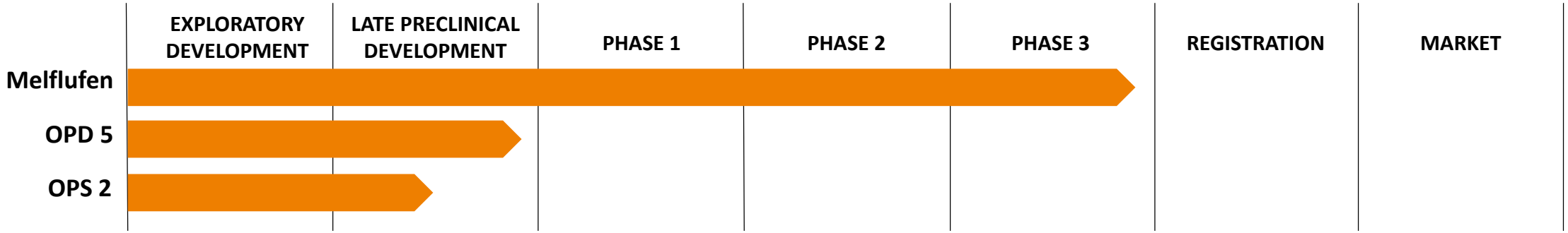


- Alternate toxic payload
- Alternate reactivity of payload
- Change membrane permeability of payload

- Modify amino-peptidase binding domain to alter specificity for different amino-peptidases

oncopeptides

PDC PIPELINE
FROM PRE-CLINICAL TO CLINICAL DEVELOPMENT 2020/21

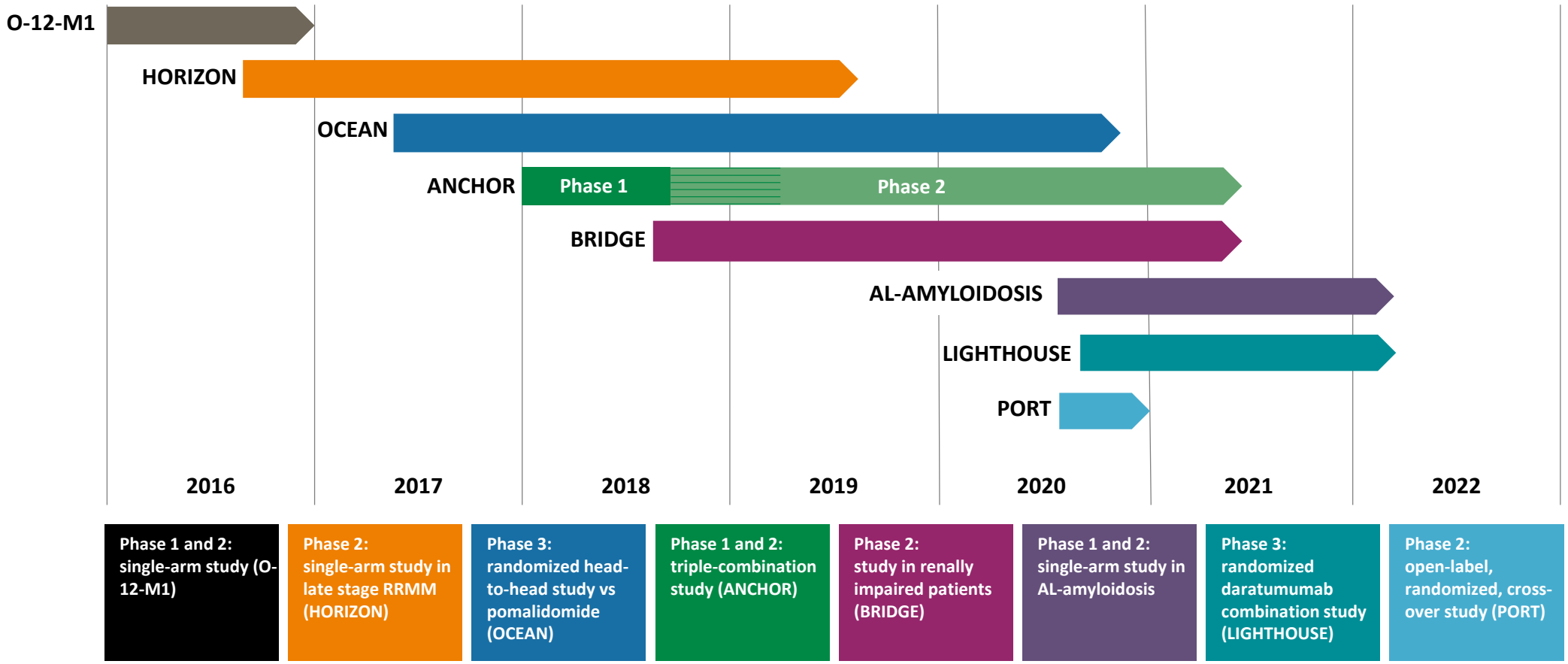


- OPD5 – High-dose treatment in i.e. bone-marrow transplantation ready for clinical development late 2020
- OPS2 – Second generation PDC candidate with alkylating payload potentially ready for clinical development in 2021

oncopeptides

MELFLUFEN CLINICAL DEVELOPMENT PROGRAM

FULL CLINICAL DEVELOPMENT PROGRAM IN RRMM



The arrows show estimated Last Patient In, in the studies

oncopeptides

FINAL DATA IN TRIPLE CLASS REFRACTORY MULTIPLE MYELOMA

INDEPENDENT REVIEW COMMITTEE DATA

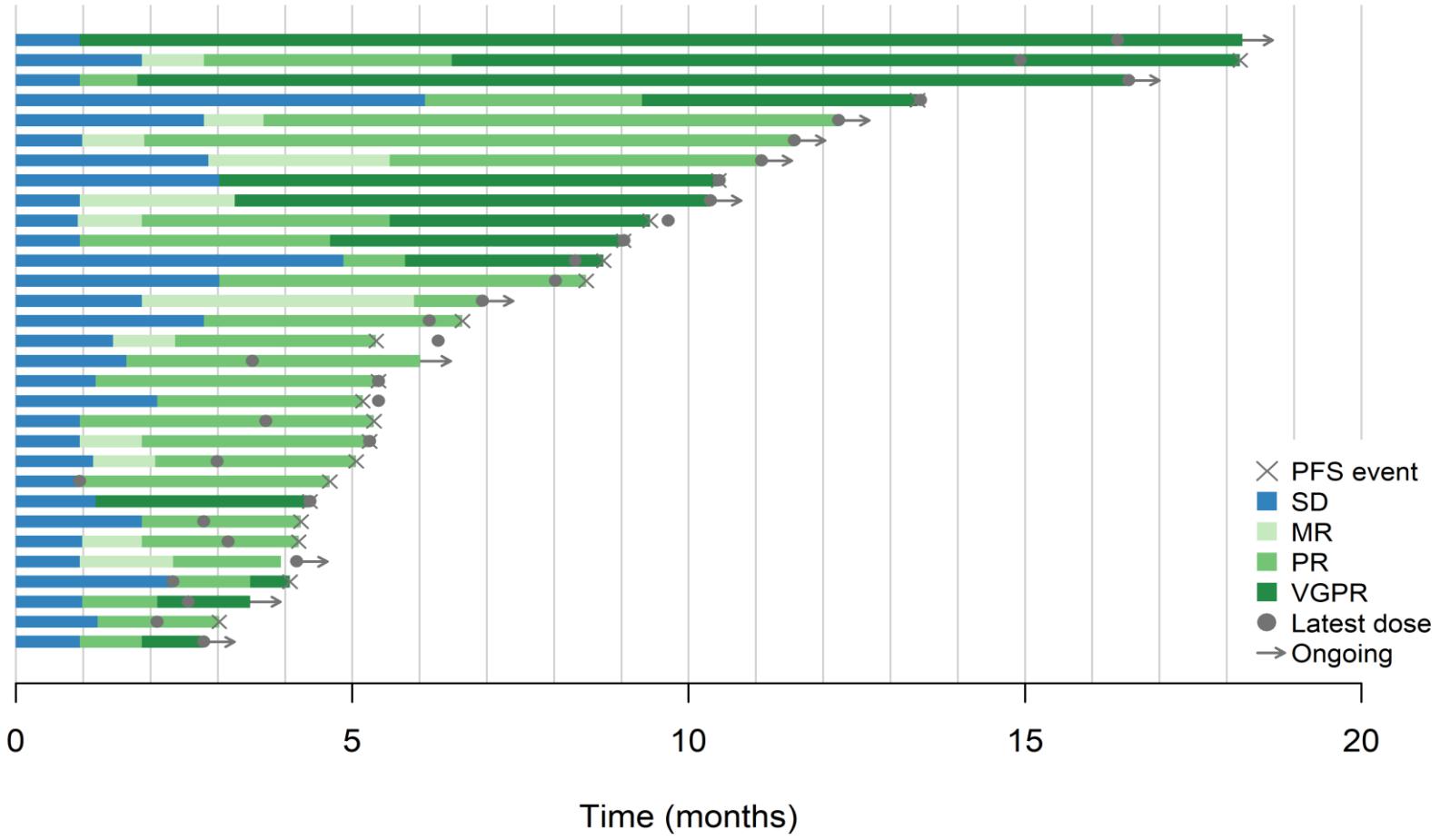
Primary End-Point	Investigator Assisted Data Jan 14th	IRC Data Jan14th	Incl. unconfirmed responses Jan 14th
Overall Response Rate (ORR) – ITT n=157	29%	30%	31% (inv. and IRC)
ORR – 3x RRMM n=119	26%	26%	27% (inv. and IRC)
ORR – EMD n=55	24%	27%	NA

Note: Two unconfirmed responses on January 14th have later been confirmed.

Safety profile demonstrates that hematological toxicities were common but manageable, and non-hematological toxicities were infrequent

STRONG ACTIVITY IN HIGHLY REFRACTORY MM PATIENTS

RESPONDING PATIENTS PROGRESSION FREE FOR 8.5 MONTHS



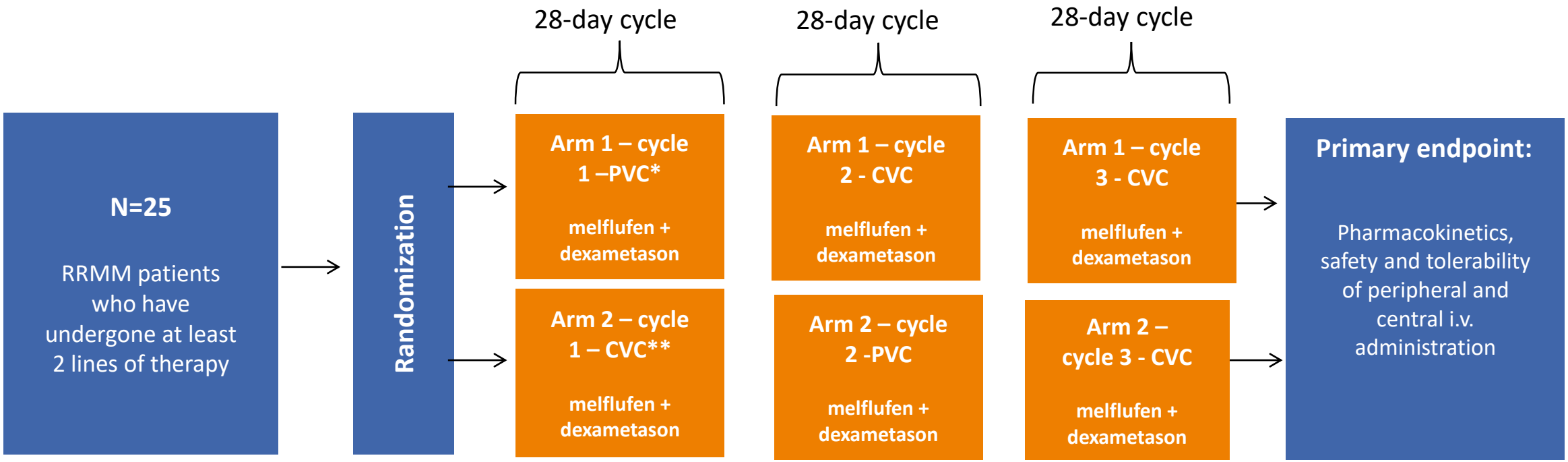
COMPETITIVE MELFLUFEN DATA

TRIPLE CLASS REFRACTORY MULTIPLE MYELOMA PATIENTS

	Melflufen **Oncopeptides** **US NDA, June 30, 2020**		**Xpovio** **Karyopharm** **US approval, July 2019**		**Blenrep** **GSK** **US Approval, Aug 6, 2020**	
Number of patients studied	119		122		95	
Overall Response/Clinical Benefit Rate	26%/39%		25%/39%		31%/36%*	
mDOR / mPFS responders	5.5m / 8.5m		3.8m / 4.0m		NR/NR	
Progression-free survival	3.9 months		3.7 months		2.8 months*	
Overall survival	11.2 months		8.0 months		14.9m*	
Share of patients with EMD	42%		22%		20%*	
Serious Adverse Event Rate	51%		58%		40%	
Non-hematologic toxicity (grade 3/4) reported in >5% of patients	Pneumonia	9%	Fatigue Hyponatremia Nausea Pneumonia Diarrhea Sepsis Hypokalemia Mental status General det.	25% 20% 10% 9% 7% 6% 6% 6% 6%	Keratopathy Decreased Visual Acuity Pneumonia Pyrexia	44% 28% 7% 6%

Source: Submission for melflufen, FDA Label documents for Xpovio and Blenrep (items marked with '*' is data from DREAMM-2 as published in Lancet).

RECENTLY INITIATED PHASE 2 PORT STUDY
COMPARING PERIPHERAL AND CENTRAL ADMINISTRATION



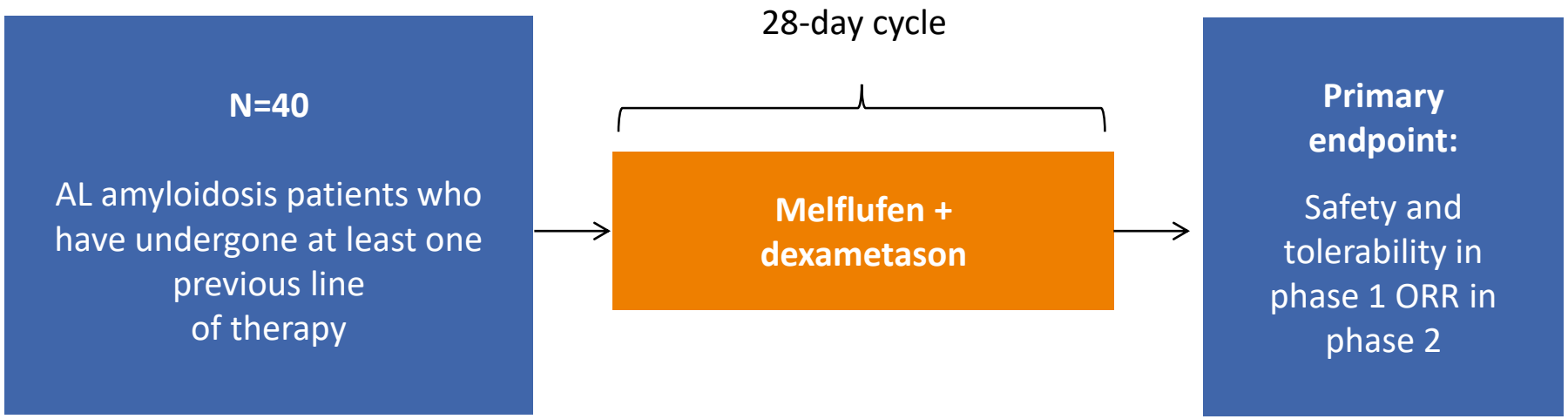
* PVC = Peripheral i.v. administration of melflufen
** CVC = Central i.v. administration of melflufen

oncopeptides

AL AMYLOIDOSIS – A RARE DISEASE WITH AN UNMET MEDICAL NEED

THE FIRST STUDY WITH MELFLUFEN OUTSIDE MULTIPLE MYELOMA

- A rare disease that occurs in 30,000 to 45,000 patients in the U.S. and Europe
- Median overall survival 3.5 years
- Patients suffer from a plasma-cell disease
- A heterogenous collection of diseases involving protein deposition in one or several organs

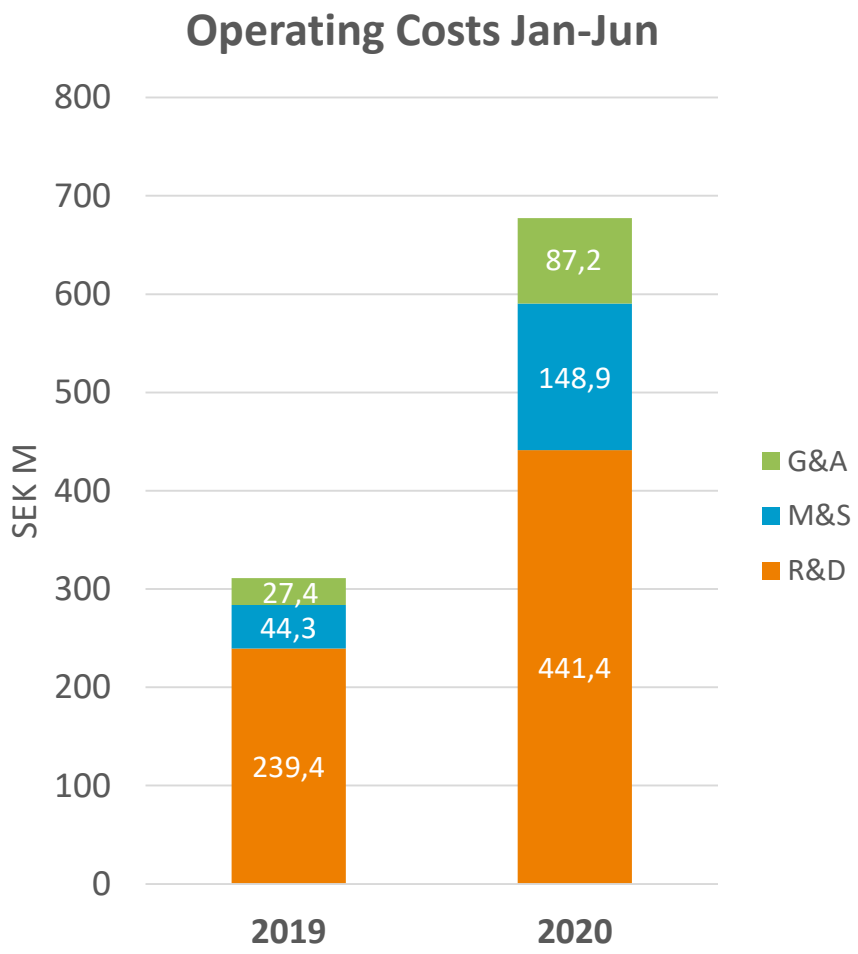


oncopeptides

FINANCIAL UPDATE

ANDERS MARTIN-LÖF
Chief Financial Officer

FINANCIAL RESULTS
FOR THE PERIOD JAN-JUN 2020



- Operating loss increased to SEK 696.2 M (loss:305.6)
  - R&D increase primarily due to increase in clinical & drug supply: SEK 332.5 M (193.9)
    - OCEAN SEK 177.2 M (110.7)
    - HORIZON SEK 35.7 M (29.5)
    - LIGHTHOUSE SEK 34.6 M (2.7)
    - ANCHOR SEK 20.8 M (19.4)
  - Build-up of commercial and medical affairs explains increase in M&S
    - US subsidiary incl. admin SEK 112.5 M (16.8)
  - Limited effect of non-cash costs for incentive programs SEK 25.9 M (17.8)
- Cash flow from operating activities neg. SEK 598.5 M (neg. 265.8)
- Cash position was SEK 937.8 M (626.8) as of Jun 30, 2020
  - Directed share issue raising SEK 1,413.9 M before issue costs of SEK 85.2 M in May 2020 closed in two steps in May and July
  - Second step of SEK 673.5 M after issue costs not included in cash as of Jun. 30

CONTINUOUS NEWSFLOW
MAJOR EVENTS OVER THE NEXT 12 MONTHS

Q2 2020	Q3 2020	Q4 2020	H1 2021
EHA data update ✓	First patient in Amyloidosis study ✓	Potential accelerated approval in US	Top-line results OCEAN
NDA submission ✓	First patient in PORT study ✓	Potential launch in the US	Last patient in ANCHOR
	FDA Feedback – PDUFA date	ASH data update	Last patient in BRIDGE
	First patient in Expanded Access Program (US)		EHA data update

oncopeptides

Q&A

THANKS FOR YOUR ATTENTION


ONE
oncopeptides