PRESENTATION OF FY 2020 REPORT

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ASCELIA PHARMA – ADVANCING ORPHAN ONCOLOGY

MANGORAL

- Diagnostic drug for liver MRI in population subset
- Global Phase 3 study ongoing
- $500-600M annual addressable market with no competition

ONCORAL

- Oral daily chemotherapy – initial focus on gastric cancer
- Phase 2 ready

BUILDING GLOBAL CAPABILITIES

- Global network of KOLs and advisors
- Driving approval and commercialization of Mangoral

SOLID FINANCIAL POSITION

- Financed to reach key value creating milestones
- Listed on NASDAQ Stockholm

BUILDING ASCELIA PHARMA AND BUILDING VALUE

WITH GLOBALLY LEADING PRODUCTS AND A PROMISING PIPELINE

MANGORAL launch in the US

ONCORAL phase 2 near closing

Pipeline expansion?

BUILDING A COMMERCIAL STAGE PHARMA COMPANY

MANGORAL in Phase 3

ONCORAL Phase 2 ready

2021 2022 2023

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RECENT KEY EVENTS

Q4-2020

Oct Raised estimate for Mangoral addressable market

Nov Mangoral eligible for centralized EU regulatory procedure

Dec Mangoral lesion visualization as effective as gadolinium (study)

Dec US patent for second-generation Mangoral

2021

Jan Presentation of clinical development plan for Oncoral

PORTFOLIO

MANGORAL

Liver diagnostic drug in ongoing Phase 3

ONCORAL

Daily oral chemotherapy ready for Phase 2

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CLEAR UNMET MEDICAL NEED

TODAY

NORMAL KIDNEY FUNCTION
Gadolinium contrast agent

POOR KIDNEY FUNCTION
NO contrast agent recommended
(regulatory black box warnings)

Severe and potentially deadly side-effects
(Nephrogenic Systemic Fibrosis)

TOMORROW

NORMAL KIDNEY FUNCTION
Gadolinium contrast agent

POOR KIDNEY FUNCTION
MANGORAL contrast agent
(based on manganese)

Mangoral aims to be the standard of care liver MRI contrast agent

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ONGOING PHASE 3 STUDY SPARKLE

PHASE 1 AND PHASE 2 RESULTS

Consistent strong efficacy readout and safety profile

Blind read study of all images vs. unenhanced MRI
(178 persons)

- Significantly improved MRI
- 33% more lesions
- **Lesion visualization**
  Delineation (border sharpness): **p-value <0.0001**
  Conspicuity (contrast vs. background): **p-value <0.0001**

Re-read study vs. gadolinium contrast agent (GBCA)
(20 persons)

- Mangoral lesion visualization as effective as GBCA

PHASE 3 STUDY (ONGOING)

Patients	Global study, 200 patients No randomisation – each patient as own control
Comparator	Unenhanced MRI + Mangoral MRI vs. Unenhanced MRI
Endpoint	**Lesion visualization** • Lesion border delineation • Conspicuity
Follow-up	Less than a week

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RE-READ STUDY

STUDY RESULTS PUBLISHED IN DEC 2020

- Independent study where Mangoral was compared against a gadolinium contrast agent and against an MRI scan without contrast agent
- Endpoints and evaluation criteria same as in the ongoing Phase 3 study SPARKLE

RESULTS

1. Mangoral as effective as gadolinium for visualization of focal liver lesions (2 out of 3 readers reporting higher scores for Mangoral)
2. Mangoral MRI provides improved diagnostic efficacy compared to MRI without a contrast agent

→ *Robust evidence of the diagnostic value that Mangoral offers*

→ *Strengthens the data package to the regulatory authorities*

→ *Supports our expectations of positive outcome of the SPARKLE study*

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COMMERCIAL OUTLOOK MANGORAL

MANGORAL MARKET OPPORTUNITY AND COMMERCIAL PREPARATIONS

- **Addressable market** of **$500-600 million** with no competition
- Decision makers **understand the value** that Mangoral provides
- **Launch preparations progress** with a strong case for own commercialization in the US
- **US patent** for second-generation Mangoral provides patent protection to **year 2040**

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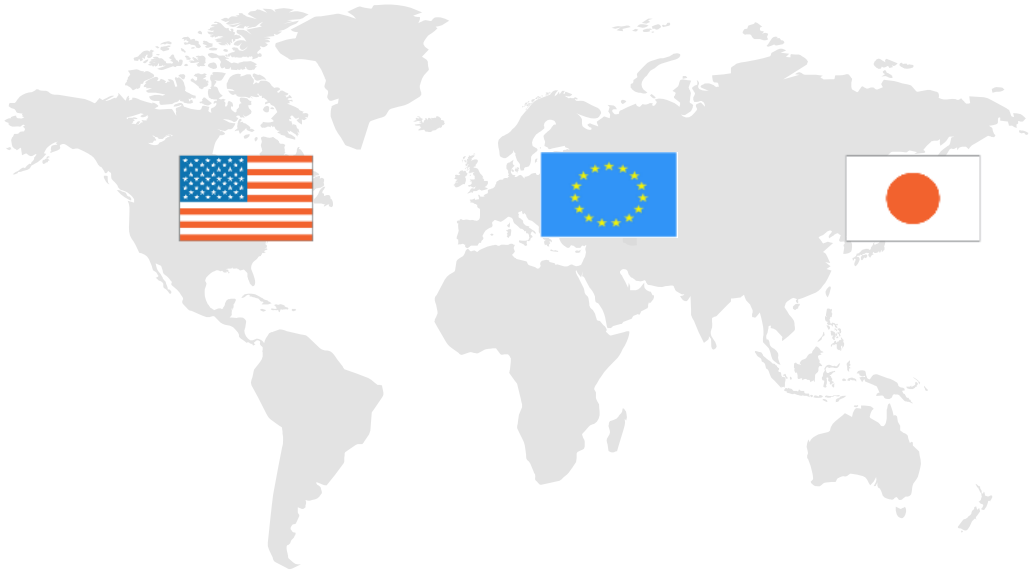
ADDRESSABLE MARKET OF $500-600 MILLION

$500-600M ADDRESSABLE MARKET IN US, EU AND JAPAN

- Large markets with mature clinical practices
- Clear regulatory and market access pathway
- No competing drugs



DRIVERS

- Patients with primary liver cancer or liver metastases and severe kidney impairment (~4%)
- Actual imaging procedures (real-world data)[1]
- Payer and expert input (+75 stakeholders)[2]

UPSIDES

- Other markets, e.g., China
- Annual growth of 4-5%

Sources:
1) Market research with Decision Resources Group, 2020
2) Market research and analyses with Revenue Reimbursement Solutions and Charles River Associates, 2020

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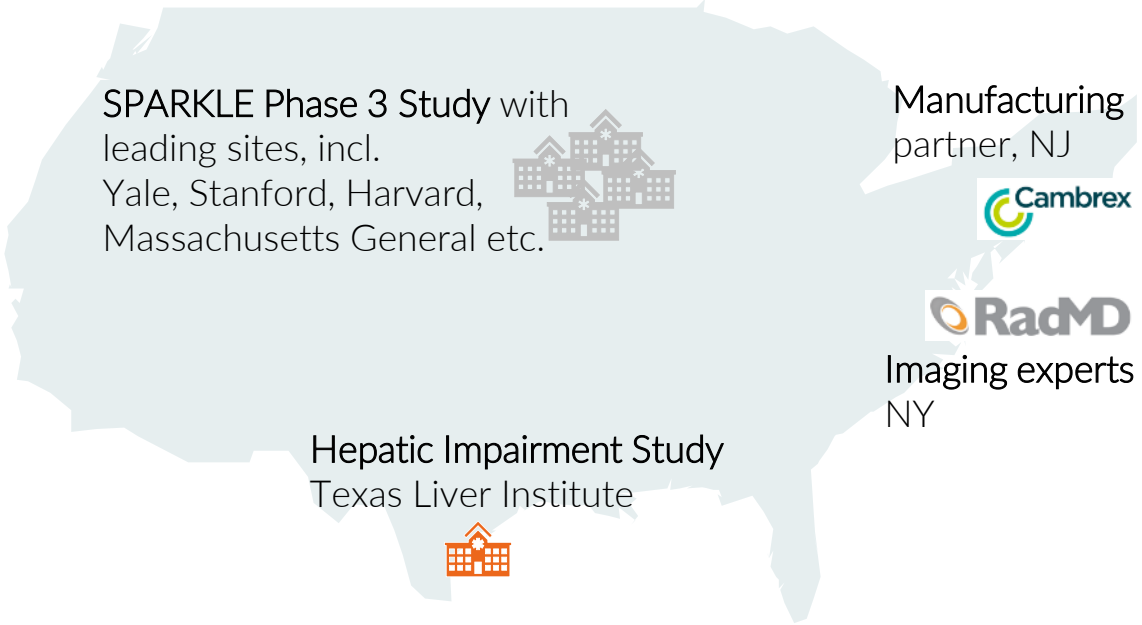
CAPTURING US MARKET VALUE WITH OWN TEAM

STRONG FOOTPRINT IN THE US



SPARKLE Phase 3 Study with leading sites, incl. Yale, Stanford, Harvard, Massachusetts General etc.

Manufacturing partner, NJ

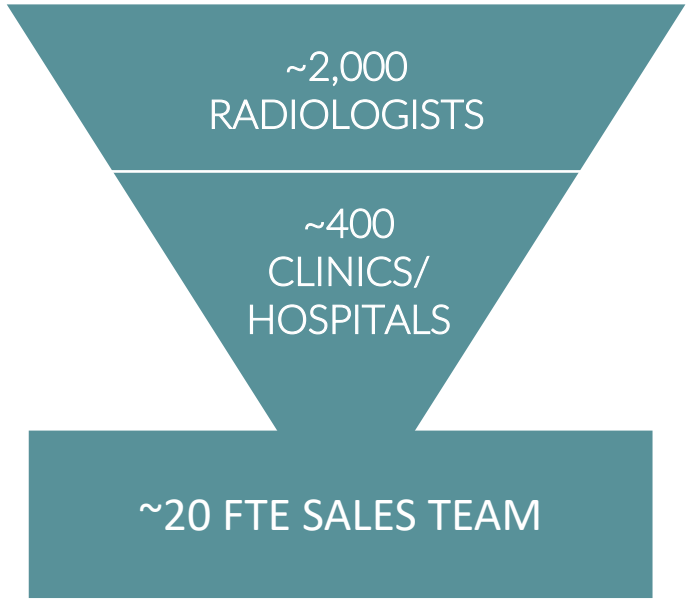
Cambrex

RadMD

Imaging experts NY

Hepatic Impairment Study
Texas Liver Institute

BUILDING AN ASCELIA US TEAM



perform regular liver MRIs in kidney impaired patients[1]

serve ~75% of kidney impaired patients[1]

reach priority decision makers

Sources:
1) Market research with Decision Resources Group, 2020

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US PATENT FOR SECOND GENERATION MANGORAL

US patent for second generation Mangoral granted

Provides patent protection until year 2040 in the US

A global patent application for 2nd generation Mangoral was also filed

Further improves the unique value proposition of the Mangoral franchise

Effervescent tablet formulation of Mangoral

Improved ease of use for patients and health care professionals

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PORTFOLIO

MANGORAL

Liver contrast agent in ongoing Phase 3

ONCORAL

Daily oral chemotherapy ready for Phase 2

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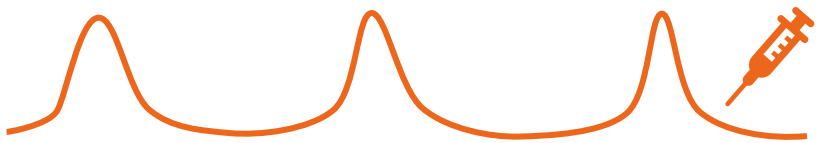
ONCORAL – IRINOTECAN AS TABLET

TODAY – IV BOLUS INFUSION



- Widely used chemotherapy
- Established potent anti-tumour effect

UNMET NEEDS

- Toxicity and gastrointestinal side-effects common
- Sub-optimal compromise between tolerability and efficacy

TOMORROW – ONCORAL (ORAL, DAILY)

- Novel tablet formulation
- Enteric coating of active ingredient

POTENTIAL

- Improved efficacy driven by pharmacokinetic/dynamic profile
- Improved tolerability due to lower peak exposure with less severe side effects and manageable toxicity with flexible dosing

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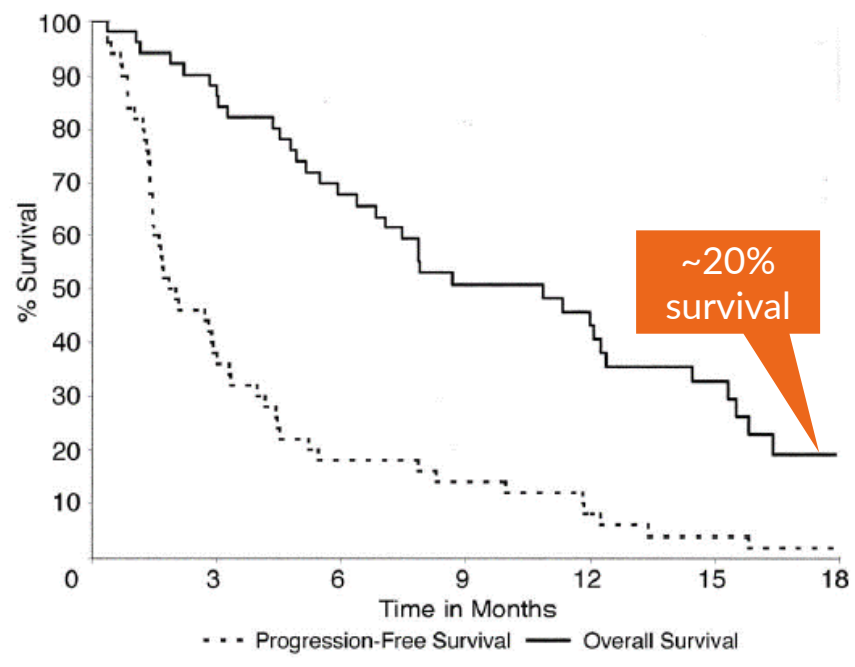
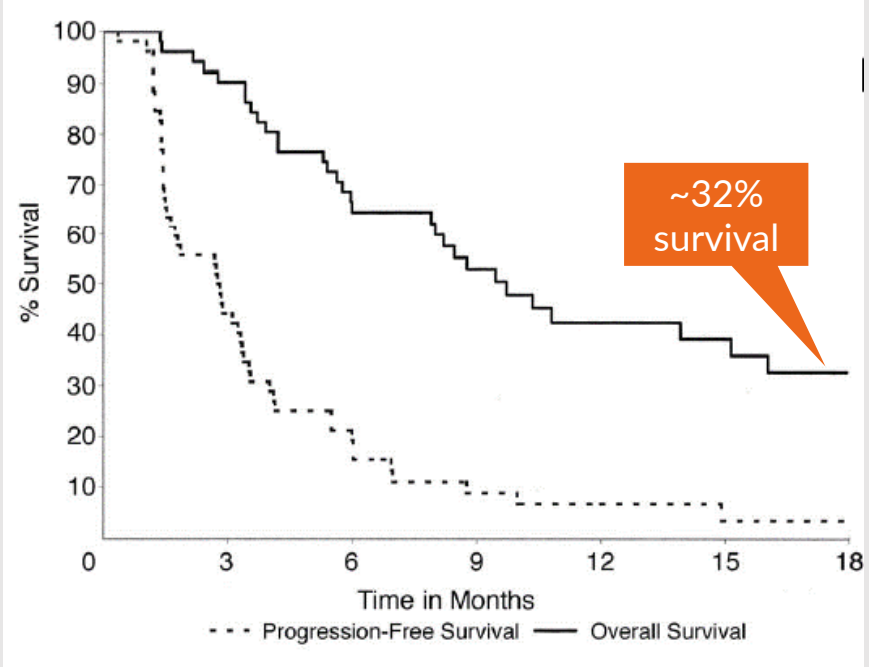
IMPROVING IRINOTECAN **EFFICACY** BY FREQUENT LOW DOSING

Overall survival: Improved from 20% (dosing every third week) to 32% (weekly dosing)[1]

Irinotecan every 3 weeks (IV)



Irinotecan weekly (IV)



Study in patients with metastatic refractory breast cancer, N=103

1) *Perez et al. J Clin Oncol 2004: Randomized Phase II Study of Two Irinotecan Schedules for Patients With Metastatic Breast Cancer Refractory to an Anthracycline, a Taxane, or Both*

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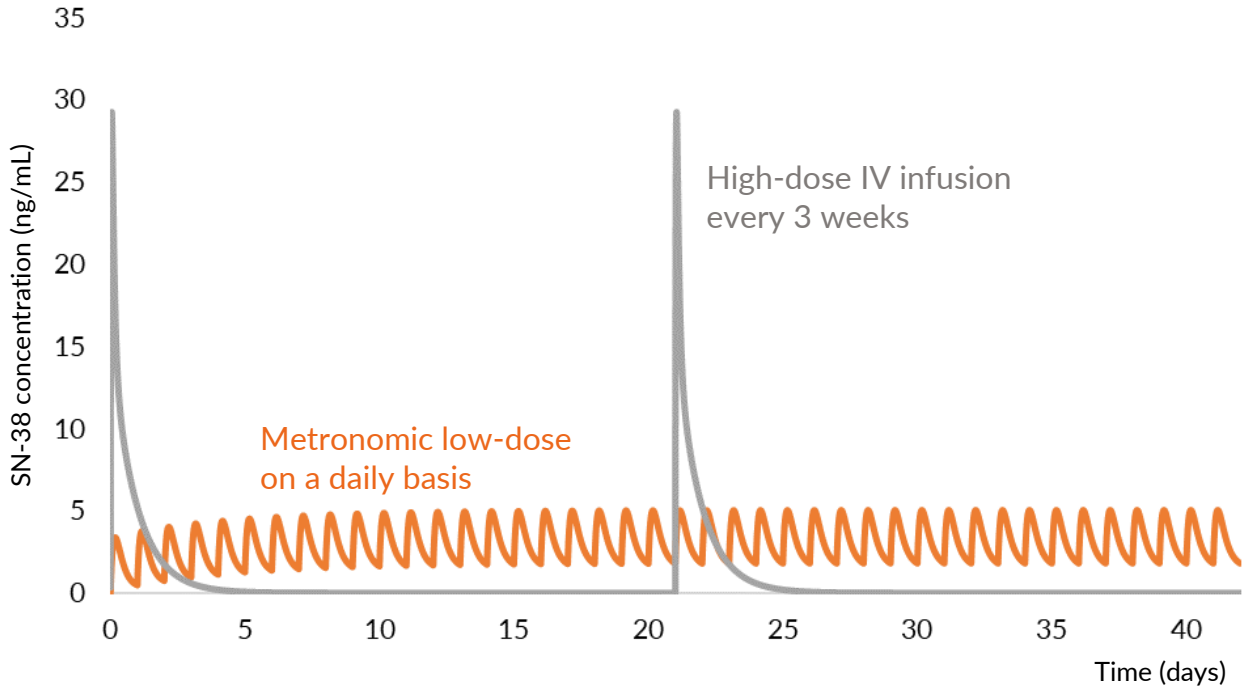
IMPROVING IRINOTECAN **TOLERABILITY** BY FREQUENT LOW DOSING

PLASMA LEVELS OF IRINOTECAN



Source: Simulation of Oncoral vs. IV Camptosar performed by Pkxpert AB

Infrequent high-dose IV irinotecan

Gastrointestinal and haematological side effects, ~30% severe or life-threatening (grade 3 or 4)[1]

Frequent (metronomic) low-dose irinotecan

- Several studies show improved tolerability[2,3]
- Daily dosing – adjust quickly if acute toxicity

Oncoral Phase 1 results

- Well tolerated, no unexpected side-effects
- Haematological toxicities mild-moderate (grade 1 or 2)[4]
- Efficacy: Stable disease even in patients previously treated with IV irinotecan

Refs: 1) Camptosar prescribing information 2) Furman et al 1999 3) Perez et al 2004 4) Kumler et al 2018

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ONCORAL SCIENTIFIC ADVISORY BOARD

Prof Josep Tabernero, MD, PhD

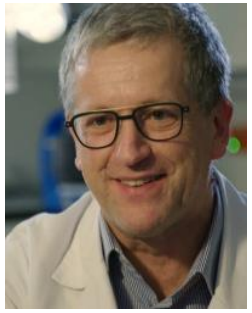
Head of the Medical Oncology Department at the Vall d'Hebron Barcelona Hospital Campus, Director of the Vall d'Hebron Institute of Oncology (VHIO), and Professor of Medicine

President (2018 – 2019) of ESMO and an Executive Board and Council Member

Prof Eric Van Cutsem, MD, PhD

Professor and Division Head of Digestive Oncology at University of Leuven (KUL) and University Hospitals Gasthuisberg, Leuven, Belgium

Co-founded ESMO GI/World Congress on GI Cancer. Serves/served on the board/ committee of ESMO, ASCO, ENET, EORTC, ECCO, ESDO



Prof Jaffer A Ajani, MD

Department of Gastrointestinal Medical Oncology, Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center, Houston, USA

Chairs the NCCN committee for gastroesophageal cancers

Prof Jeff Evans, MD

Professor of Translational Cancer Research and Clinical Lead of the Institute of Cancer Sciences, University of Glasgow

Member of the NCRN Upper GI Cancer Pancreatic Cancer and Gastro-Oesophageal Cancer sub-groups

Joint view that Oncoral would be an important treatment option for cancer patients, especially in later disease stages

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PHASE 2 - STUDY IN PREPARATION

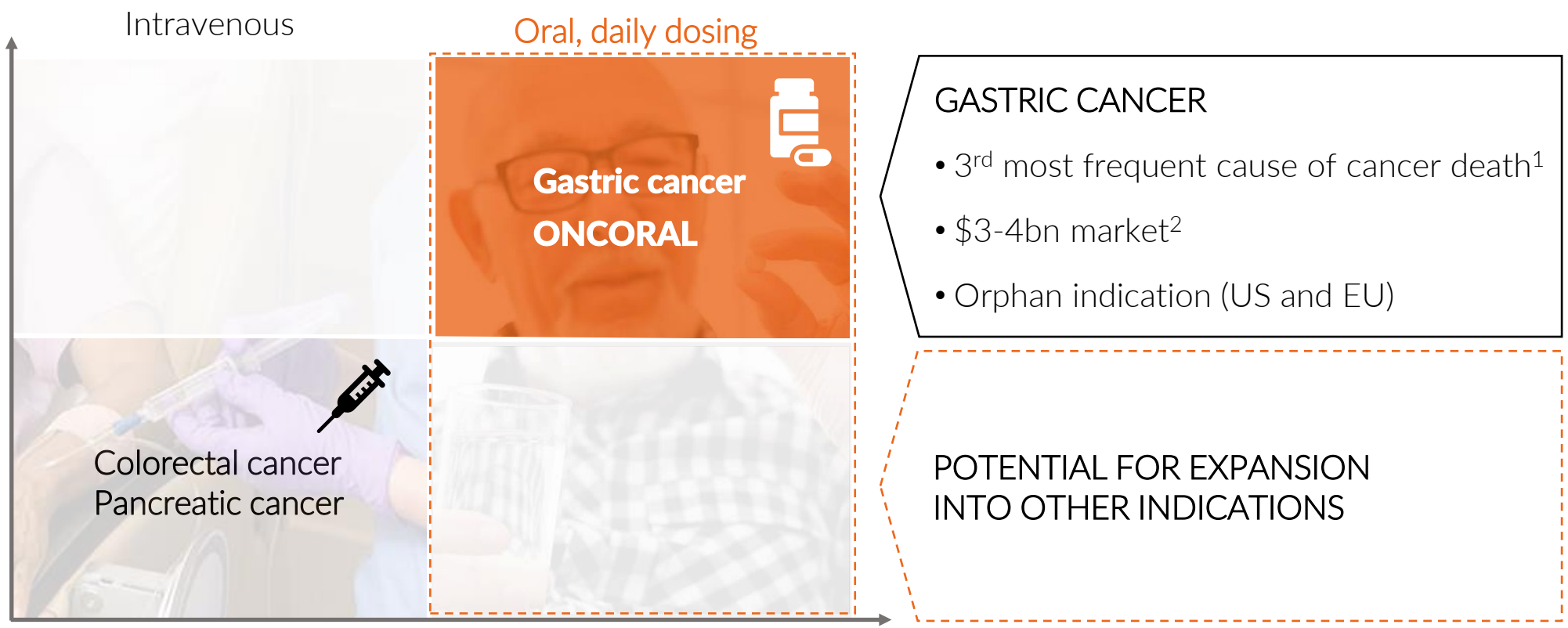
OBJECTIVES OF PHASE 2

- Clinical proof-of-concept in metastatic gastric cancer
  - Potential orphan drug designation
  - Clinical guidelines support efficacy of irinotecan
  - Potential for subsequent label expansion to other solid tumor indications
- Compelling Phase 2 data package for further development
- Solid data to design Phase 3 study

STUDY DESIGN

Type of study	Randomized controlled, multicentre, multinational study: Oncoral + Standard of Care vs. Standard of Care
Endpoints	**Primary:** Progression Free Survival **Secondary:** Response rate, PK, safety and Overall Survival data in a follow up analysis
No. of patients	Approximately 100 patients
Study period	H2 2021 – 2024

HIGH VALUE OPPORTUNITY IN GASTRIC CANCER



1) International Agency for Research on Cancer (IARC, 2021
2) GlobalData - Gastric and Gastroesophageal Junction Adenocarcinoma – Global Drug Forecast and Market Analysis to 2024

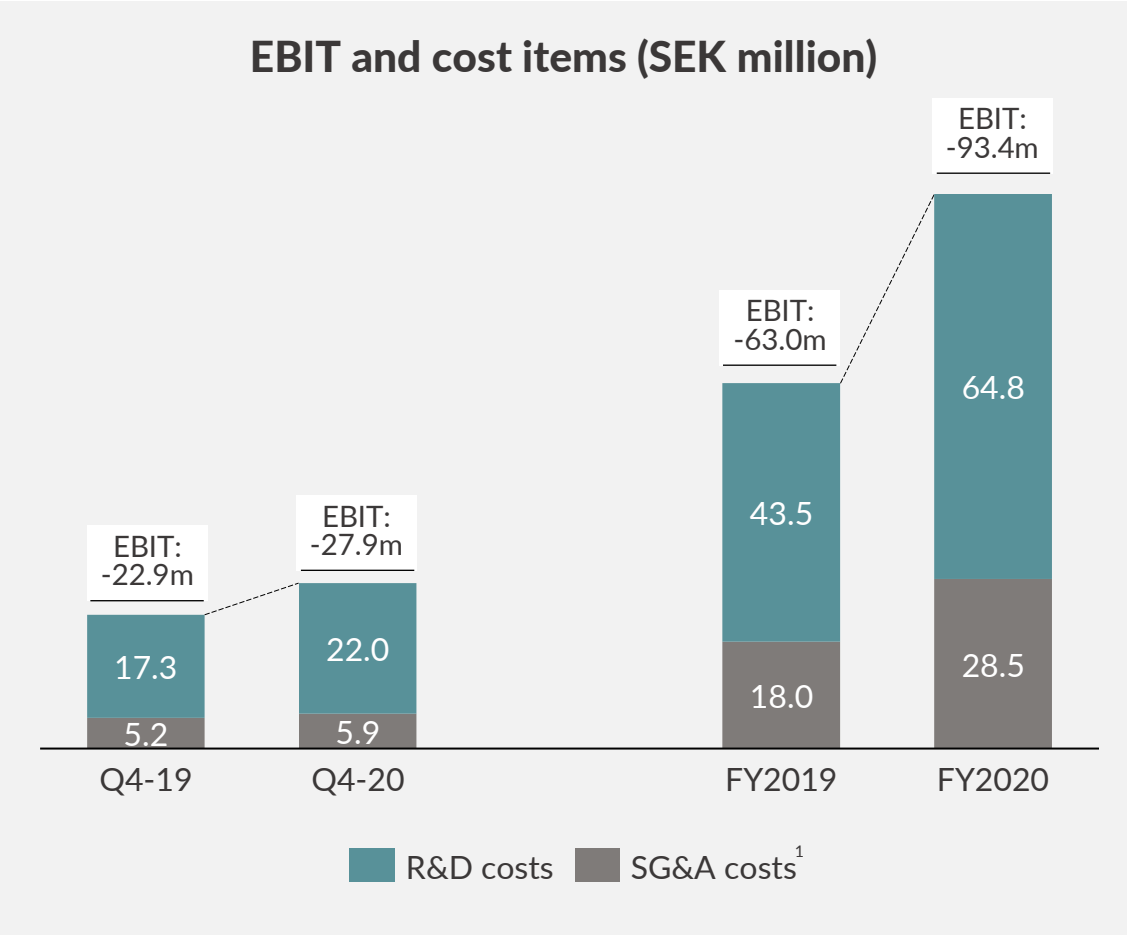
FINANCIALS AND PRIORITIES 2021

FINANCIAL HIGHLIGHTS Q4 2020 – OPERATING RESULTS

Increased operating loss y/y mainly driven by higher R&D activity for Mangoral Phase 3 study:

- Clinical development
- Manufacturing preparations
- Regulatory preparations

… And higher costs for commercial preparations for Mangoral (forming part of Selling, General & Administrative costs)



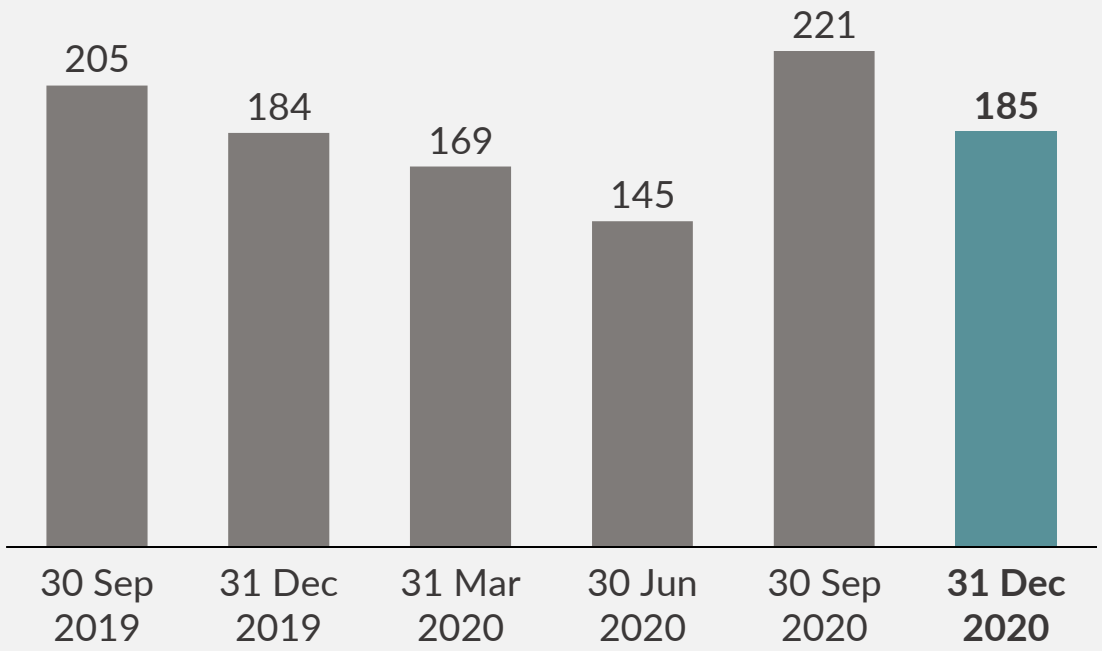
Notes:
1) Other operating income and other operating costs included into SG&A

FINANCIAL HIGHLIGHTS Q4 2020 – LIQUIDITY POSITION

Solid liquidity position:

- Liquidity mainly to be used for Mangoral clinical Phase 3 and pre-commercial activities
- The liquidity position will take Ascelia Pharma into 2022 and consequently beyond the clinical milestone with topline Phase 3 from SPARKLE, which is expected in H2-2021

Liquid assets including marketable securities (SEK million)



PRIORITIES 2021

- Complete Mangoral Phase 3 patient enrolment (top line results planned for 2H 2021)[1]
- Prepare for Mangoral launch (planned Q4-2022 – H1-2023)[1]
- Initiate Phase 2 study for Oncoral (planned start in H2-2021)

1) Timelines incorporate the currently assessed impact from Covid-19. An extended Covid-19 situation may further affect timelines.

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