PRESENTATION OF Q3-2021 REPORT

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WEBCAST:
4 November 2021, 10:00AM CET

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INVESTMENT HIGHLIGHTS

ADVANCING ORPHAN ONCOLOGY

- Identify, develop and commercialize novel drugs that address unmet needs in rare cancers
- Two drugs in advanced clinical development
  - **ORVIGLANCE (**MANGORAL) – in global Phase 3; FDA Orphan Drug Designation; U.S. launch expected H2 2023
  - **ONCORAL** – starting Phase 2 in Q4 2021*

BUILDING GLOBAL CAPABILITIES

- Financed well into 2023
- Based in Malmö (Sweden) & Woodbridge, NJ (US)
- Listed on NASDAQ Stockholm (Ticker: ACE)

*Expected timing for study start approval (IND approval)

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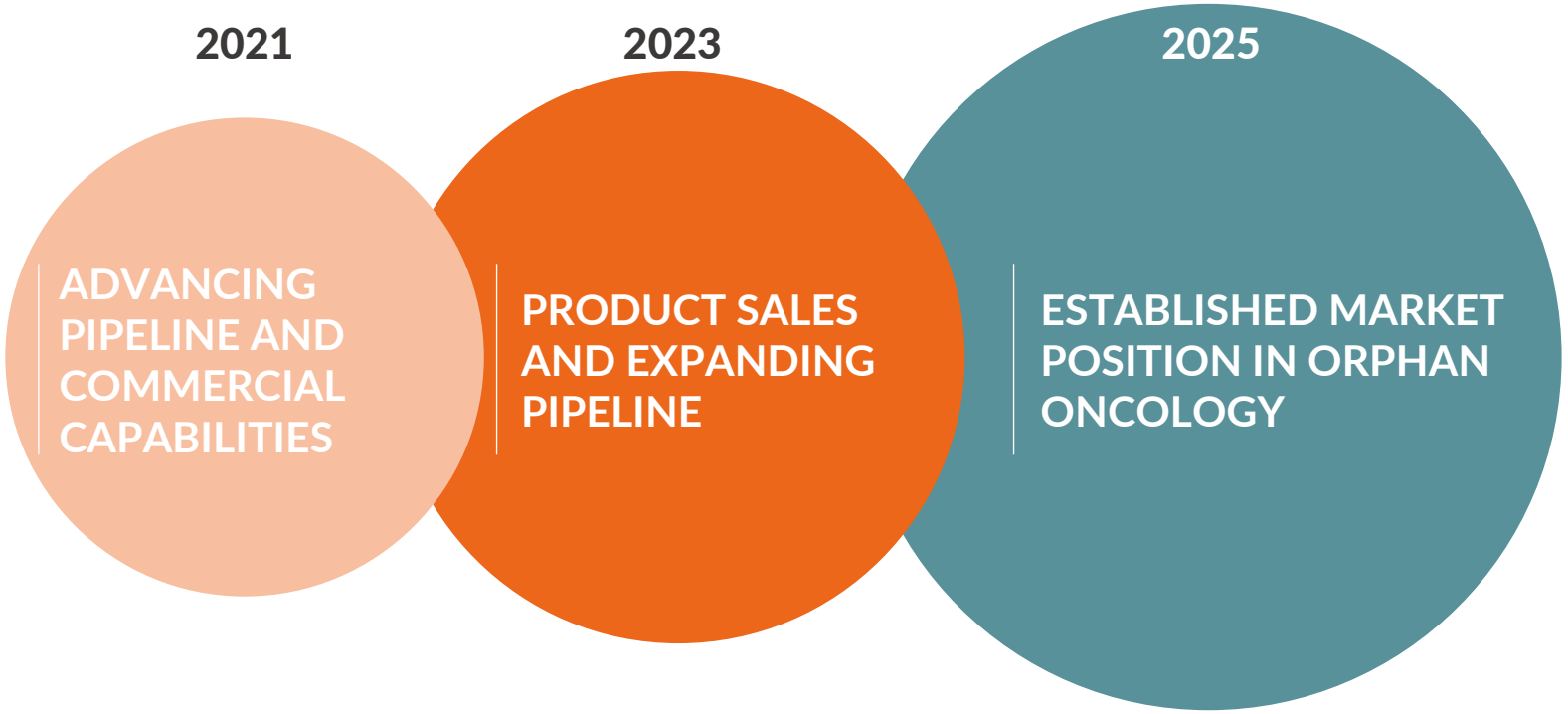
BUILDING VALUE



2021	2023	2025
- ORVIGLANCE Phase 3 - ONCORAL Phase 2 ready	- ORVIGLANCE revenue - ONCORAL Phase 2 ongoing - Pipeline expanding	- ORVIGLANCE market leader - ONCORAL Phase 3 ongoing - Pipeline development - Pipeline further expansion

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RECENT KEY EVENTS

Key events Q3-2021

Aug FDA conditionally accepted Orviglance® as the brand name for Mangoral

Aug Abstract for Orviglance comparison study to gadolinium accepted as an oral paper presentation at the world's largest radiology conference RSNA

Aug Guidance for expected recruitment completion for the SPARKLE study moved to H1 2022 (previously H2 2021)

Sep Clinical collaboration agreement with Taiho Oncology Inc. for the development of Oncoral in combination with LONSURF®

Key events after the quarter

Oct Food Effect Study with Orviglance successfully completed

ONCORAL – CLINICAL COLLABORATION WITH TAIHO ONCOLOGY

DEVELOPMENT OF ONCORAL IN COMBINATION WITH LONSURF®

- Clinical Phase 2 collaboration with Taiho Oncology Inc. (part of the Otsuka Group)
- Taiho Oncology will supply Lonsurf as well as provide scientific expertise for the study
- Depending on the results, the collaboration may be extended for further development
- Ascelia Pharma retains full development and commercialization rights to Oncoral

Clinical collaboration with

TAIHO ONCOLOGY

LONSURF is approved for treatment of metastatic gastric cancer and metastatic colorectal cancer

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ORVIGLANCE – FOOD EFFECT STUDY SUCCESFULLY COMPLETED

Last Patient Last Visit in Food Effect Study (part of the registration package for Orviglance)

- Crossover study in 24 healthy volunteers in fasting condition versus two fed conditions (snack or full meal)
- Study objectives included food effects on Orviglance PK, PD and safety profile
    - Data will provide guidance on fasting requirements before Orviglance administration
- Preliminary data indicate that Orviglance was well tolerated in the study – final results expected late 2021/early 2022
- A potential removal of the current fasting requirement could further improve the convenience and ease the administration of Orviglance in clinical practice

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PORTFOLIO

ORVIGLANCE (MANGORAL)

Liver diagnostic drug in ongoing Phase 3

ONCORAL

Daily oral chemotherapy ready for Phase 2

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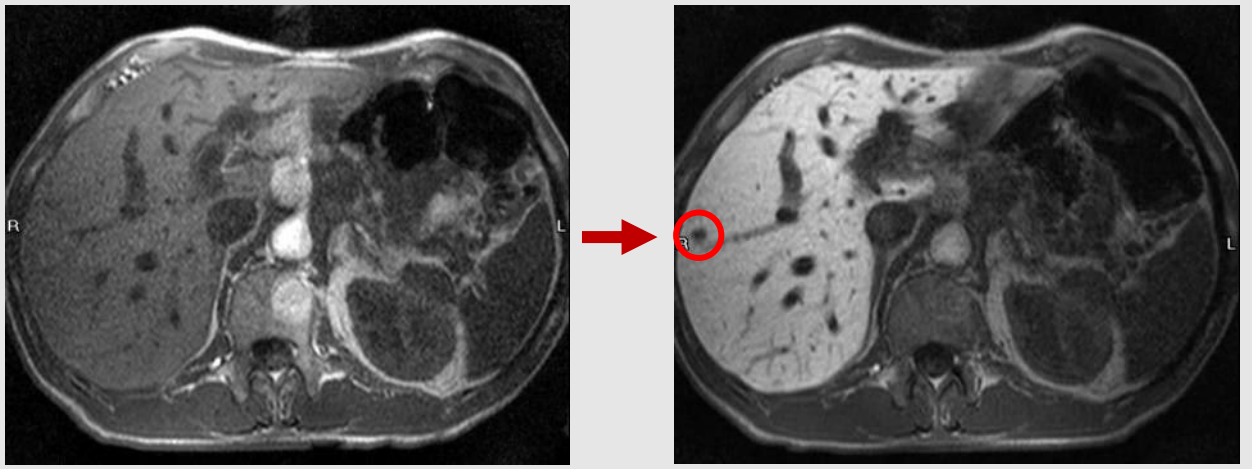
ORVIGLANCE – PHASE 3 LIVER MRI CONTRAST AGENT

NOVEL LIVER MRI CONTRAST AGENT

- Diagnostic drug for use in liver MRI scan to detect cancer
- Targeting patients at risk of potentially fatal side-effect from the current contrast agents on the market
- $500-600 million addressable market with Orviglance as the only gadolinium-free agent

SOLID PROGRESS

- Strong clinical Phase 2 results (p-values <0.0001)
- Ongoing Global Phase 3 study
- Orphan Drug Designation from FDA



Liver MRI without contrast agent

No metastases visible

ORVIGLANCE enhanced liver MRI

Liver metastasis appear with Orviglance

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ORVIGLANCE PHASE 1 & 2 RESULTS (6 STUDIES)

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**

Proceed into Phase 3

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

- ORVIGLANCE lesion visualization as effective as GBCA
  (2 out of 3 readers favoured Orviglance)

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ORVIGLANCE ONGOING PHASE 3 STUDY – SPARKLE

Patients 	• Global study, 200 patients • Known or suspected focal liver lesions and severe renal impairment • No randomization – each patient as own control	Status update: US, Europe, Latin America 40+ sites increasing to over 50 sites
Comparator 	Unenhanced MRI + ORVIGLANCE MRI vs. Unenhanced MRI	Internal control so not randomized
Endpoint 	Lesion visualization • Lesion border delineation • Conspicuity	Same endpoints as Phase 2
Follow-up 	Less than a week	Expected pivotal study patient enrollment: H1 2022

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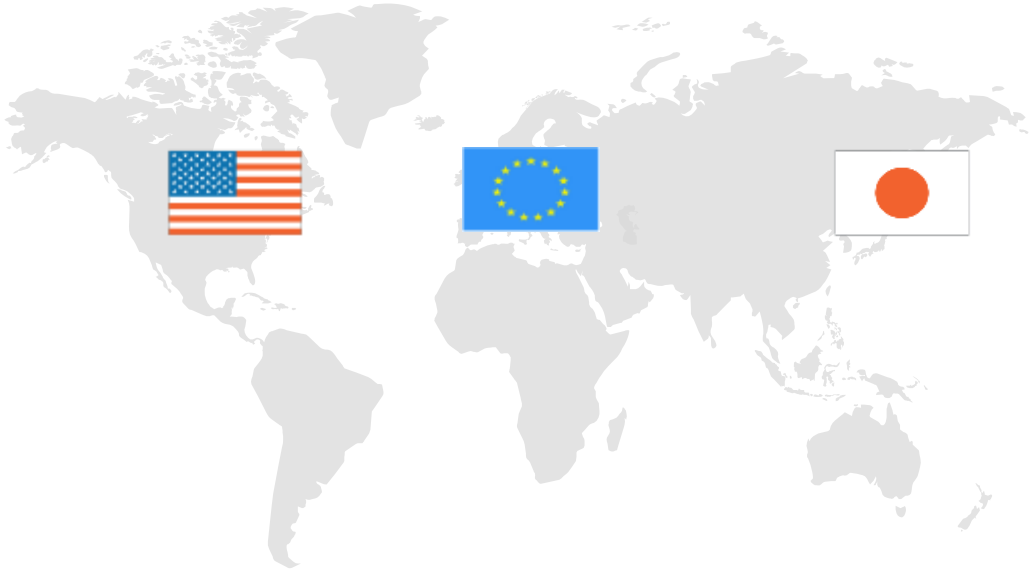
ORVIGLANCE MARKET $500-600 MILLION ANNUALLY

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

- Ascelia Pharma to commercialize in the U.S
- RoW commercialization with partners



DRIVERS

- Patients with suspected 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 ASCELIA'S TEAM

perform regular liver MRIs in kidney impaired patients[1]

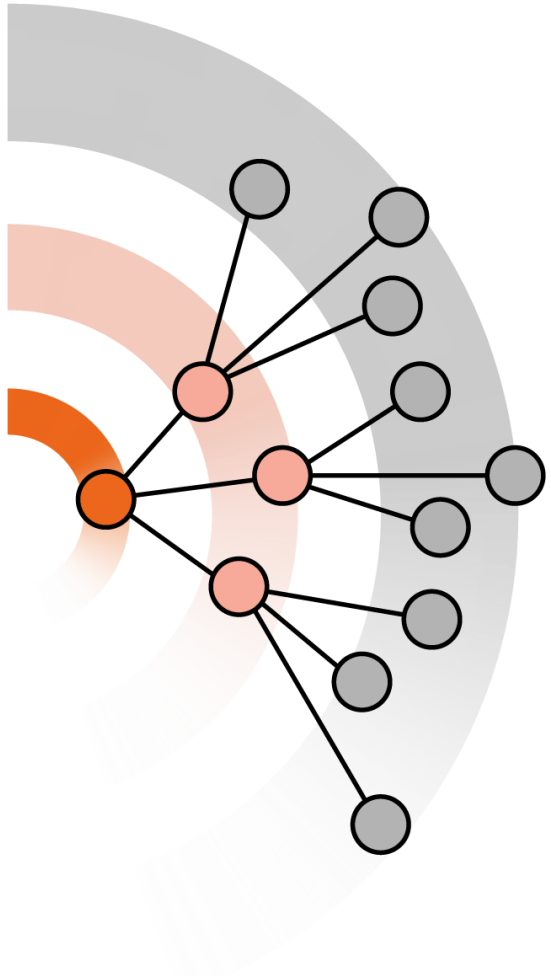
~2,000 RADIOLOGISTS

serve ~75% of kidney impaired patients[1]

~400 CLINICS/ HOSPITALS

reach priority decision makers

FOCUSED FIELD TEAM



BUILDING ASCELIA U.S. TEAM

New Jersey office (up to 40 FTEs at launch)

Cambrex manufacturing partner

BUILDING OUT U.S. FOOTPRINT

SPARKLE Phase 3 study 13+ US Sites including Yale, Stanford, Mass. General, UCLA Medical Center

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

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PORTFOLIO

ORVIGLANCE (MANGORAL)

Liver contrast agent in ongoing Phase 3

ONCORAL

Daily oral chemotherapy ready for Phase 2

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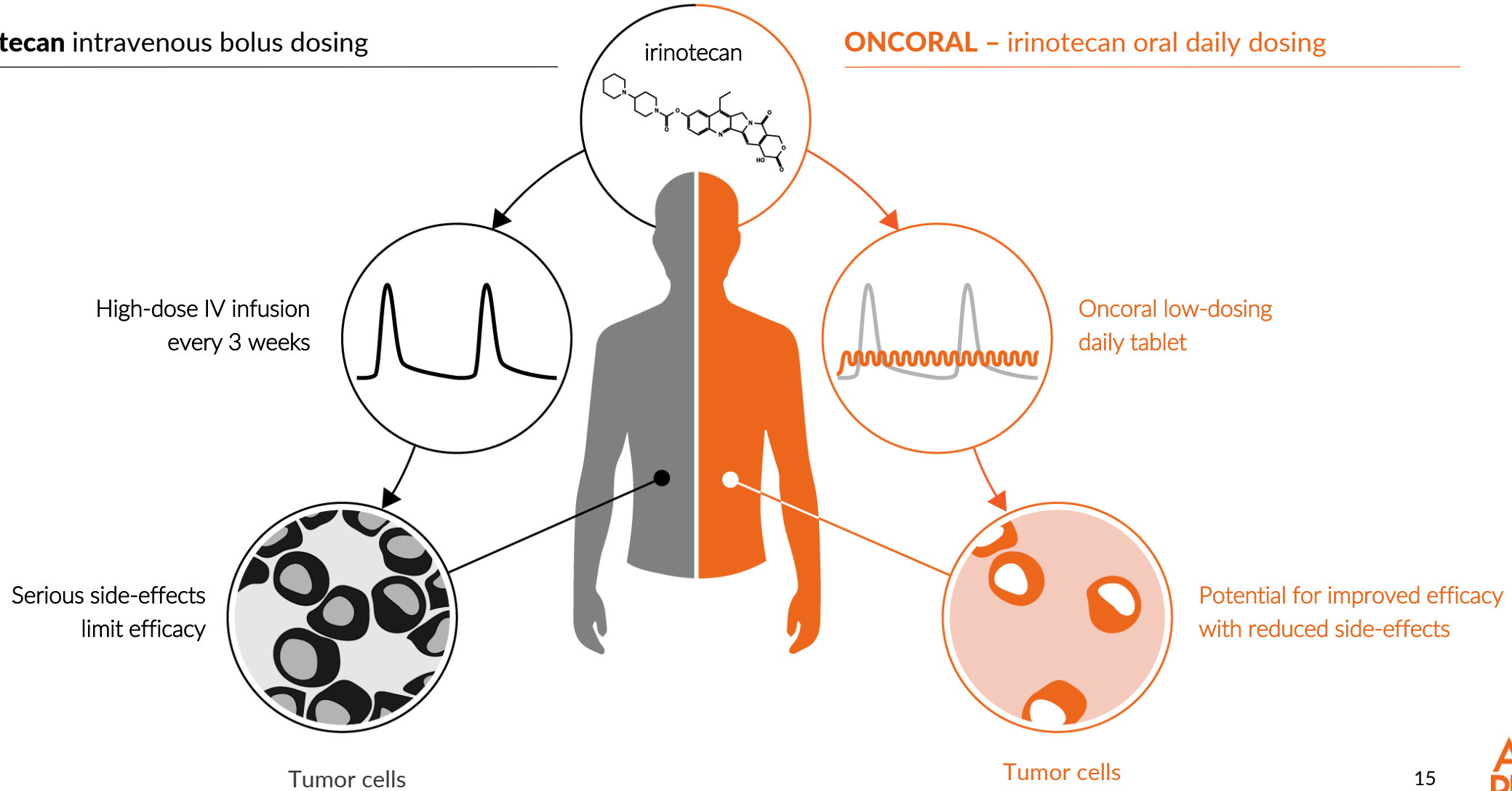
IMPROVING IRINOTECAN **EFFICACY** and **TOLERABILITY**

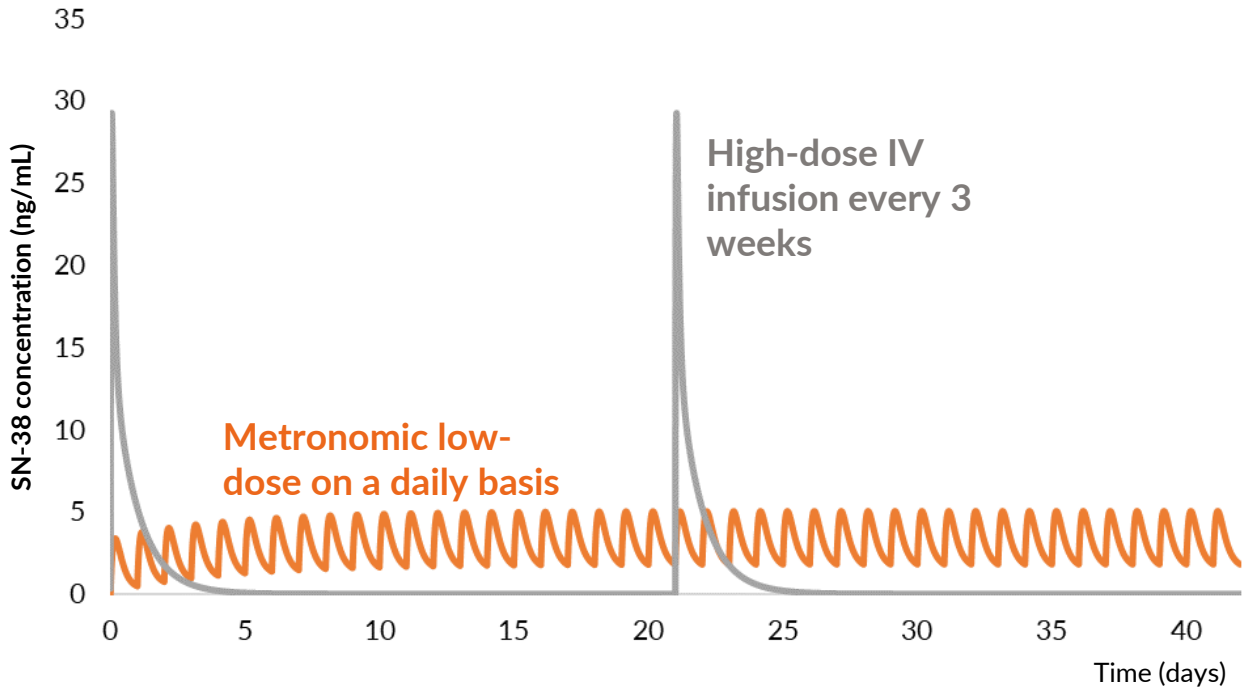
Irinotecan intravenous bolus dosing

ONCORAL – irinotecan oral daily dosing



ONCORAL PHASE 1 RESULTS

PLASMA LEVELS OF IRINOTECAN



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

Oncoral Phase 1 results

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

Infrequent high-dose IV irinotecan

Gastrointestinal and hematological 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

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

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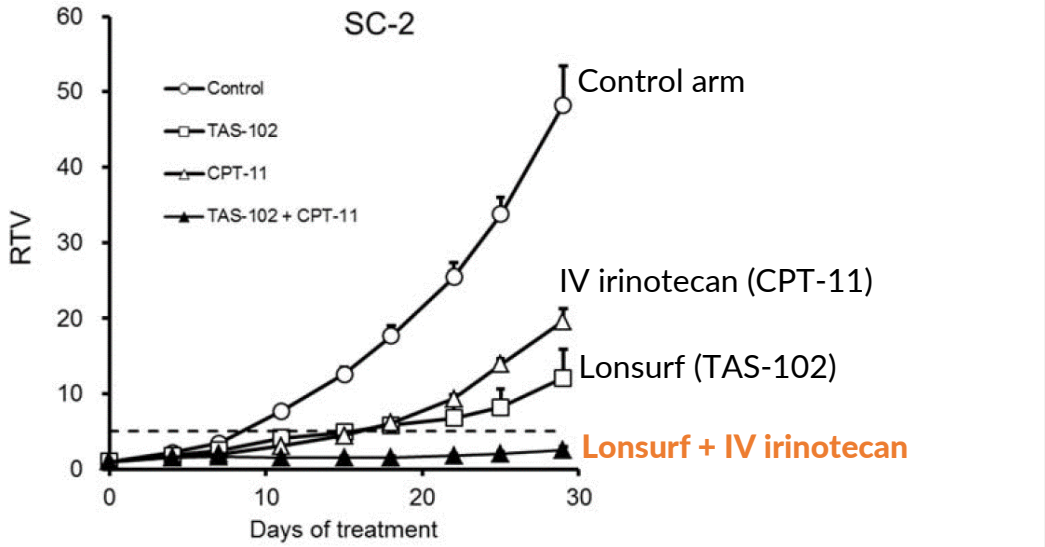
ONCORAL PHASE 2 IN GASTRIC CANCER

STRONG RATIONALE FOR GASTRIC CANCER

- Clinical guidelines support efficacy of irinotecan
- Potential for Orphan Drug Designation
- Potential for synergistic effect between Lonsurf and irinotecan

Efficacy study in an animal model of gastric cancer[1]
(Relative Tumor Volume, RTV)



1: Nukatsuka *et al*: Combination Chemotherapy Using TAS-102 and Irinotecan Hydrochloride, ANTICANCER RESEARCH 35: 1437-1446 (2015)

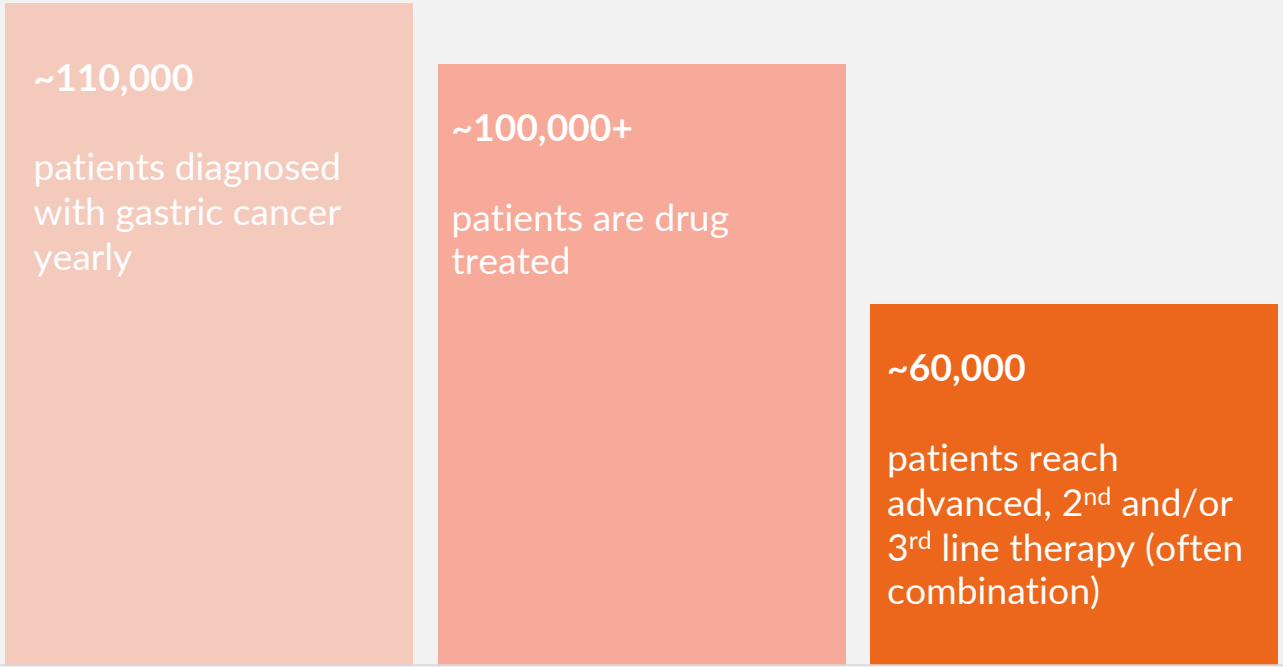
STUDY DESIGN (ALL-ORAL COMBINATION STUDY)

Patients	• Around 100 patients • Metastatic gastric cancer • Randomized controlled, multicenter, multinational study
Comparator	Oncoral + Lonsurf vs. Lonsurf
Endpoints	**Primary:** Progression Free Survival **Secondary:** Response rate, PK, Safety and Overall Survival data in a follow up analysis
Study period	Q4 2021* – 2024

*Expected timing for study start approval (IND approval)

GASTRIC CANCER – A $3BN+ MARKET OPPORTUNITY

US and EU target patent population (orphan disease)



Other key market

Japan and South Korea has high prevalence and high diagnosis rates (~150,000 diagnosed patients/year)

China is the country in the world with the highest number of gastric cancer patients (~400,000 diagnosed patients/year)

…other markets (~400,000 diagnosed patients/year)

Sources:
International Agency for Research on Cancer (IARC, 2021, input from key opinion leaders and Ascelia analysis
GlobalData - Gastric and Gastroesophageal Junction Adenocarcinoma – Global Drug Forecast and Market Analysis to 2024

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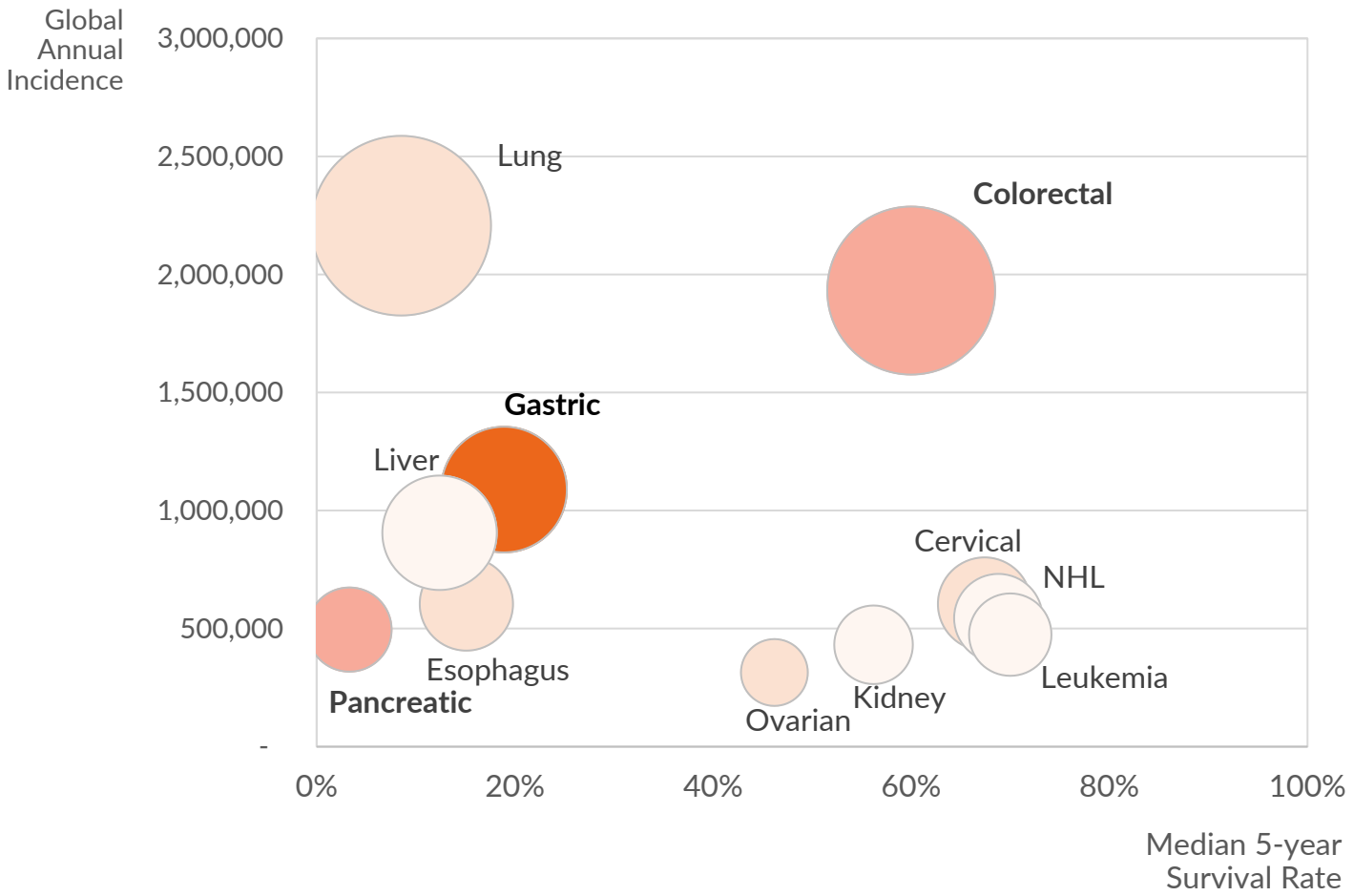
HIGH VALUE OPPORTUNITY IN GASTRIC CANCER AND EXPANSION

POTENTIAL FOR ORAL, DAILY DOSING OF IRINOTECAN[3]



- **Current focus:** Gastric cancer
  - 3rd highest cancer deaths[1]
  - Orphan opportunity (U.S. and EU)
  - $3-4bn market[2]
- Approved indications for IV irinotecan infusions
- Indications for which IV irinotecan infusions are clinically demonstrated & NCCN recognized
- Indications for which IV irinotecan infusions are clinically demonstrated

1) International Agency for Research on Cancer (IARC, 2021)
2) GlobalData - Gastric and Gastroesophageal Junction Adenocarcinoma – Global Drug Forecast and Market Analysis to 2024
3) Globocan 2020, WHO, Cancer Research UK

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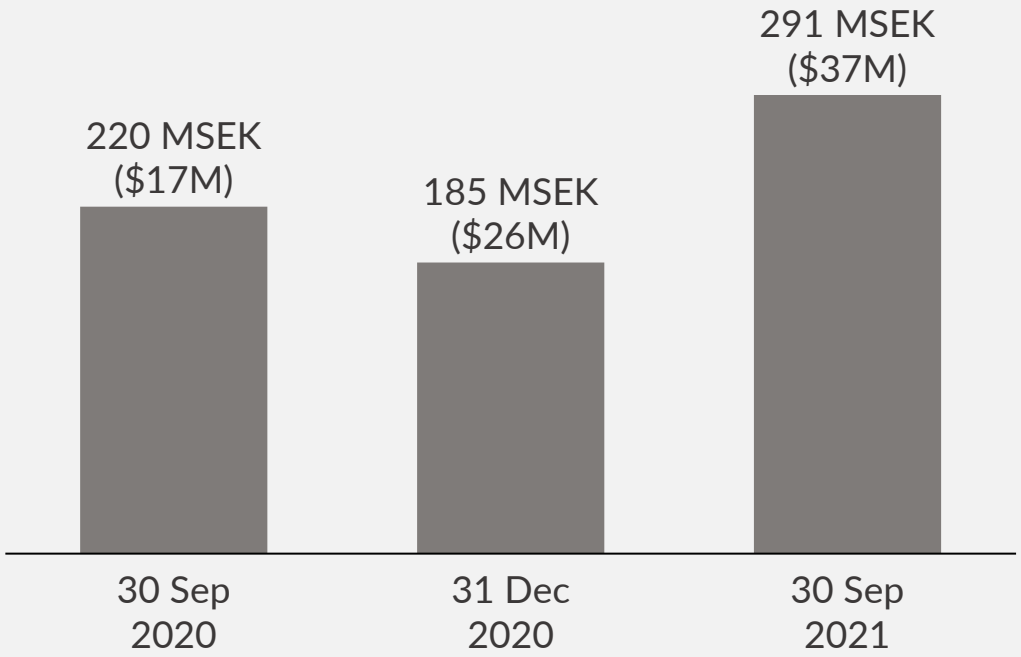
FINANCIALS AND PRIORITIES

FINANCIAL HIGHLIGHTS Q3 2021 – LIQUIDITY POSITION

Solid liquidity position:

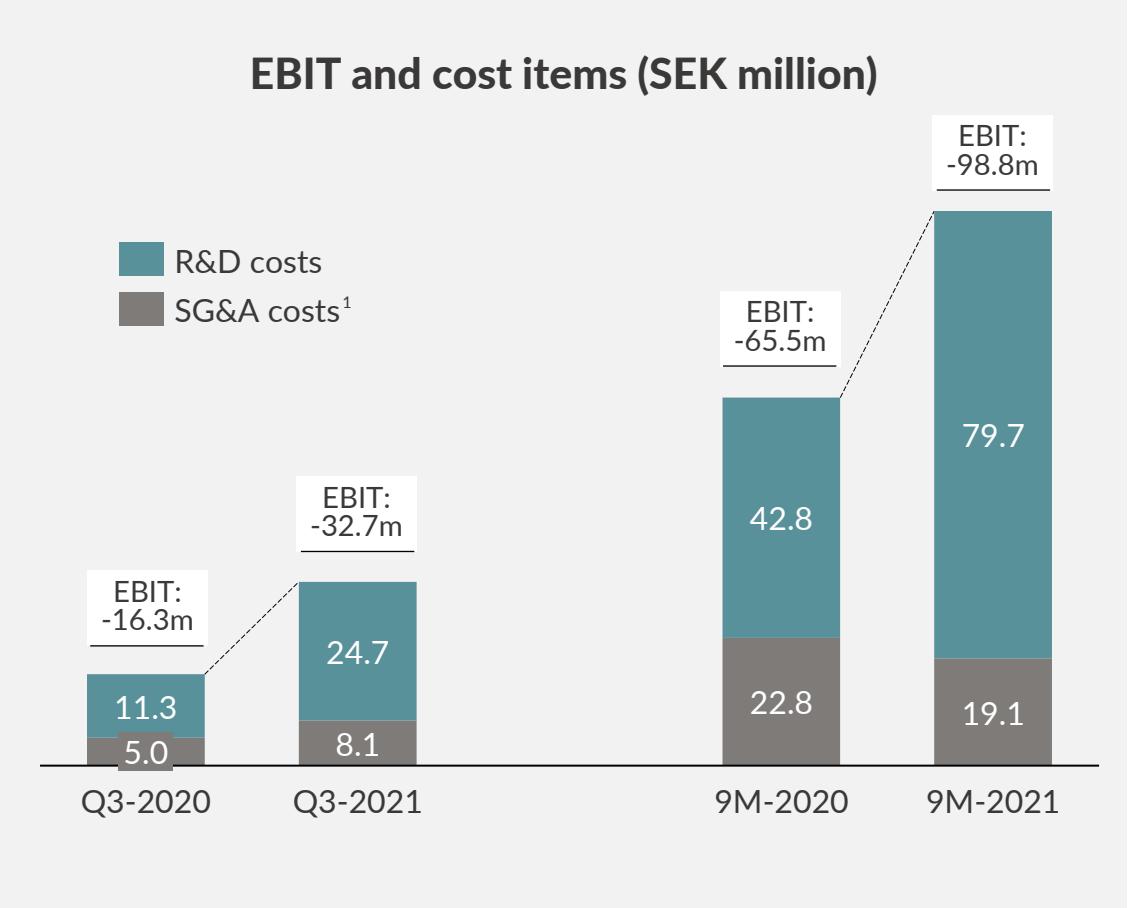
- Liquid assets of 291 MSEK ($34 million) by 30 Sep 2021
- Quarterly burn rate in 9M 2021 of ~30 MSEK ($3-4 million)
- Current cash position provides financing well into 2023

Liquid assets including marketable securities (million)



FINANCIAL HIGHLIGHTS Q3 2021 – OPERATING RESULTS

- Increased operating loss y/y mainly driven by higher R&D activity for Orviglance Phase 3 study:
  - Clinical development
  - Manufacturing preparations
- Also higher R&D costs y/y due to Oncoral Phase 2 preparations



Notes:
1) Other operating income and other operating costs added to SG&A

PRIORITIES AND KEY MILESTONES

1. Initiate Phase 2 study for Oncoral (study approval start, IND, expected Q4-2021) [1]
2. Complete Orviglance Phase 3 patient enrollment (expected H1-2022)[1]
3. Prepare Orviglance launch (planned for H2-2023)[1]

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

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