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ADVANCING
ORPHAN
ONCOLOGY

PRESENTATION OF Q1-2023 REPORT

Presenters from Ascelia Pharma:

CEO Magnus Corfitzen | Deputy CEO & CCO Julie Waras Brogren
CSO Andreas Norlin | CFO Déspina Georgiadou Hedin

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IMPROVING THE LIFE
OF PEOPLE LIVING WITH CANCER
BY OFFERING BETTER
TREATMENT OPTIONS

ASCELIA PHARMA – HIGHLIGHTS

ADVANCING ORPHAN ONCOLOGY

- Identify, develop and commercialize novel drugs that address unmet needs in rare cancers
- Two drugs in advanced clinical development
 - **ORVIGLANCE** – Phase 3 patient enrollment completed; FDA Orphan Drug Designation
 - **ONCORAL** – Ready for Phase 2

BUILDING GLOBAL CAPABILITIES

- Based in Malmö (Sweden), US affiliate in New Jersey (US)
- Listed on NASDAQ Stockholm (Ticker: ACE)

RECENT KEY EVENTS

Key events in Q1-2023

- Ascelia Pharma achieves last patient last visit (LPLV) in the Orviglance Phase 3 Sparkle study which now includes 85 completed patients
 - Investor update: Bringing Orviglance to market – Next steps towards launch
 - Third US Patent strengthens patent protection for Ascelia Pharma's Oncoral (daily tablet irinotecan)
 - Ascelia Pharma resolves on conversion of series C shares into ordinary shares for delivery to participants in incentive program
 - Ascelia Pharma mourns the passing of board member René Spogárd
-

Key events after Q1-2023

- No significant events after the period



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PHARMA



PORTFOLIO

ORVIGLANCE

Liver diagnostic drug in ongoing Phase 3

ONCORAL

Daily oral chemotherapy ready for Phase 2

ORVIGLANCE – FILLING AN UNMET NEED IN LIVER MRI

Liver metastases
critical in cancer care



Liver metastases are common
in many cancer types and often
the cause of mortality ¹⁻³

- Colorectal cancer, metastatic breast cancer, gastric cancer

Contrast enhanced MRI
is gold standard



Contrast enhanced MRI

- Detection and visualization
- Surgery or drug treatment planning
- Post-treatment surveillance

A role for Orviglance
in patients with kidney impairment



Healthy kidneys

MRI with gadolinium contrast agent

Severe kidney impairment

- All gadolinium contrast agents have regulatory Black Box warnings
- Risk of severe side effects, incl. Nephrogenic Systemic Fibrosis

Orviglance

Aims to be the liver imaging option without gadolinium-related safety risks for cancer patients with poor kidney function

1) Riihimäki, M. *et al.* Patterns of metastasis in colon and rectal cancer. *Sci. Rep.* 6, 29765; doi: 10.1038/srep29765 (2016); *Journal of Pathology*, 2014, 232:23-31

2) Guy diSibio and Samuel W. French (2008) Metastatic Patterns of Cancers: Results From a Large Autopsy Study. *Archives of Pathology & Laboratory Medicine*: June 2008, Vol. 132, No. 6, pp. 931-939

3) Rahbari *et al.* Metastatic Spread Emerging From Liver Metastases of Colorectal Cancer: Does the Seed Leave the Soil Again? *Annals of Surgery*: February 2016 - Volume 263 - Issue 2 - p 345-352

EXTENSIVE ORVIGLANCE CLINICAL PROGRAM

Phase 1 & 2



Six Studies Completed¹⁻⁶

Evaluating safety and efficacy

Totally 127 subjects (2 placebo) healthy volunteers and patients

Evaluation Before Phase 3

Re-read of efficacy across all studies

Enriched with 68 patients from a compassionate use program

New Evaluation (P004A): Orviglance vs. Gadolinium and Unenhanced

Re-read of 20 patients with liver metastases, by 3 blinded, independent readers

Phase 3 Program

Food Effect Study

Effect of food intake on absorption and signal intensity (39 subjects)



Hepatic Impairment Study

Effect of liver impairment on the safety, pharmacokinetics (35 subjects)



SPARKLE - Phase 3 Pivotal Study
Evaluates the safety and efficacy in target patient population (85 patients)



Consistent positive efficacy and safety in completed studies⁷
Total Program of 9 studies in 286 patients and healthy volunteers

1) Thomsen HS et al, Acad Radiol 2004; 11: 630-636

2) Thomsen HS et al. Eur Radiol 2007; 17: 273-278

3) Rief M et al. Invest Radiol. 2010; 45: 565-71

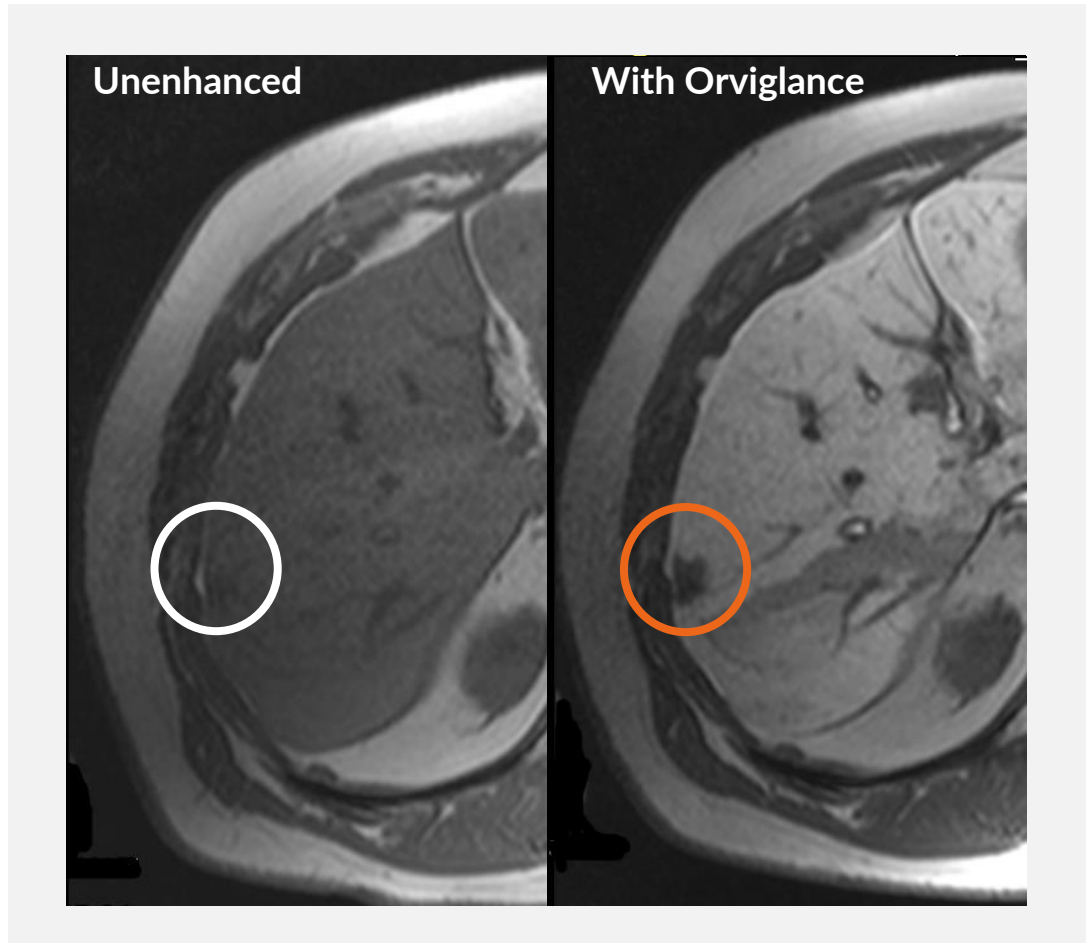
4) Brismar TB et al., Eur Radiol 2012; 22:633-41

5) Albiin N et al. MAGMA. 2012; 25:361-368

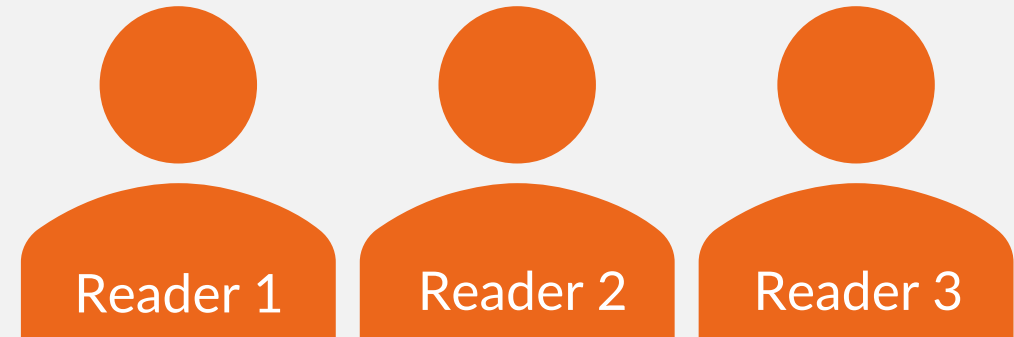
6) Study CMC-P005, primary objective to study of Orviglance for imaging of bile ducts (not published)

7) Results from Phase 1 and 2 and Food Effect and Hepatic Impairment Studies

SPARKLE SUCCESS DETERMINED BY LESION VISUALIZATION



Criteria for statistical test of primary endpoint



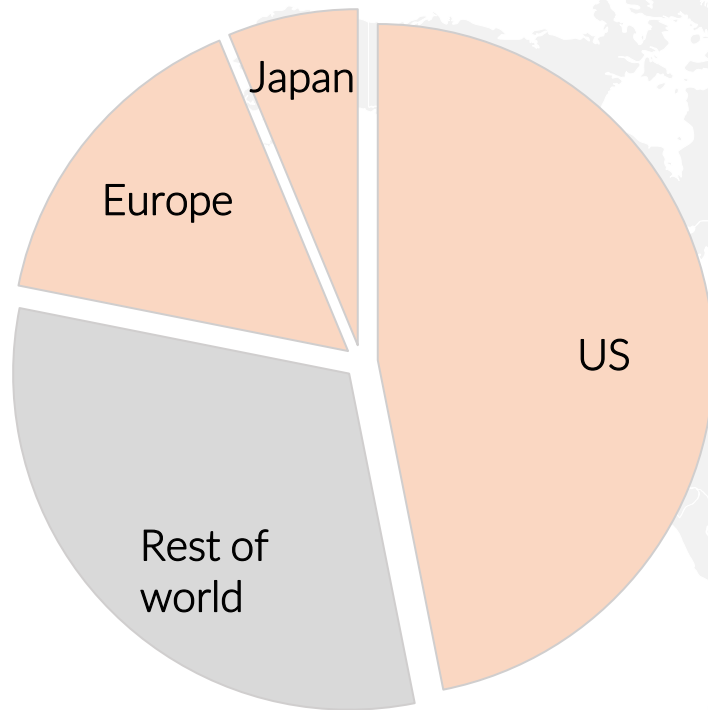
Primary endpoint is met if 2 out of 3 independent radiologists rate both Border Delineation and Lesion Contrast (Conspicuity) for Orviglance MRI higher than unenhanced MRI with statistical significance

ASCELIA EXPERIENCE WITH EVALUATION METHODOLOGY

	Number of Patients	Liver Lesion Types*	Number of Radiologist Readers	Primary Endpoint	Orviglance Superior to Unenhanced	Statistical Significance
P004A Re-read	20	Metastases	3	Co-primary: Border delineation Lesion contrast	Yes	(P=0.009)
SPARKLE	85	Known or suspected lesion (metastases, primary tumors, benign lesions)	3	Co-primary: Border delineation Lesion contrast	?	?

* Apart from the difference in population heterogeneity, other differences between P004A Re-read and SPARKLE includes e.g., dose and MR hardware/software technology

ATTRACTIVE ADDRESSABLE MARKET



Global addressable market of USD 800 million
(US, Europe and Japan USD 500-600 million)

Well defined unmet need for liver imaging in cancer patients with severe kidney impairment

Attractive pricing and access opportunity based on recognized value proposition¹

Underlying growth driven by prevalence and cancer survival as well as access and quality of care in rest of world markets²

Sources:

Ascelia Pharma market research with Decision Resources Group, 2020.

Ascelia Pharma market access research and analyses with Revenue Reimbursement Solutions and Charles River Associates (2020), Triangle (2022) and Trinity (2022), incl. 75 stakeholder and expert interactions

1) Final pricing strategy is subject to Phase 3 data, payer evidence, negotiations, discounts and access strategy

2) In rest of world markets addressable market patient population incorporates restricted access to care, with market-based assumptions ranging from 10% upwards

ATTRACTIVE US OPPORTUNITY



Abdominal imaging procedures in cancer patients with severe kidney impairment (CKD 4/5/AKI) based on epidemiology and real-world data¹

Pricing range benchmarks based on innovative diagnostics, payer and expert input and price testing^{2, 3}

Volume growth driven by demographics as well as prevalence and long-term care in cancers and kidney disease

~100,000 procedures annually

\$3,000-4,500

4-5% vol. annually

Sources:

- 1) Ascelia Pharma market research with Decision Resources Group, 2020. Literature on prevalence and epidemiology of kidney disease, cancer and liver metastases.
- 2) Ascelia Pharma market access research and analyses with Revenue Reimbursement Solutions and Charles River Associates (2020), Triangle (2022) and Trinity (2022)
- 3) Final pricing strategy is subject to Phase 3 data, payer evidence, negotiations, discounts and access strategy

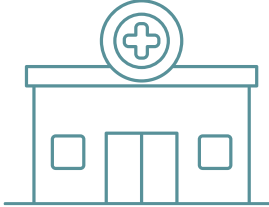


CAPTURING US MARKET VALUE



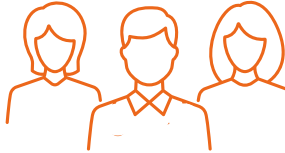
~2,000
RADIOLOGISTS

Perform regular liver MRIs in kidney impaired patients¹



~400
CLINIC ACCOUNTS

Serve ~75% of kidney impaired patients¹



~40

FOCUSED TEAM MEMBERS

Reach decision makers with field team and office operations

US LAUNCH DESIGN

Step-wise build-up with ~40 FTEs expected at launch with account field team and selected outsourcing operations

Manufacturing partner, Cambrex, in New Jersey

1) Ascelia Pharma analysis based on market research with Decision Resources Group, 2020

CLEAR UNMET NEED

NSF risk

with warnings for target population

In patients with poor kidney function, all GBCAs have regulatory black box warning, as these patients have the highest risk of the severe and sometimes fatal side-effect, nephrogenic systemic fibrosis

+90%



of HCPs are concerned by issues relating to GBCAs (including NSF)

+16%



of providers have experienced GBCA-induced NSF

MOMENTUM FOR AN ALTERNATIVE TO GADOLINIUM

Unknown safety impact

of deposition in the brain and organs

New safety category recommended for Symptoms Associated with Gadolinium exposure (SAGE), by Am. College of Rad. (2022)

Multiple-use effect on body movement and mental skills study requested by the FDA (ODYSSEY, 2020)

Environmental scrutiny

over gadolinium in sewage and drinking water

Gadolinium used in MRI is excreted in urine. It is difficult to remove in our sewage systems and discharged into the environment and drinking water

“The increasing use of gadolinium-based contrast agents (GBCAs) for magnetic resonance imaging is leading to widespread contamination of freshwater and drinking water systems”¹



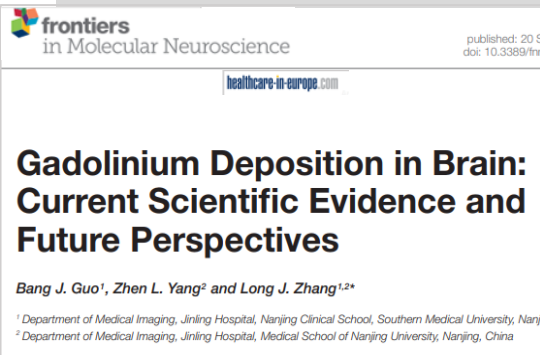
A future with alternatives

focus of leading gadolinium manufactures

Half dose full-body gadolinium contrast agent
FDA approved in priority review
(gadopiclenol, Guerbet/Bracco 2022)

Completion of Phase 1 of full-body low dose
gadolinium (gadoquatrane, Bayer 2022)

Completion of Phase 1 patient enrollment in full-
body IV manganese-based contrast agent
(GE HealthCare 2023)



1) Brünjes R. et al. Anthropogenic gadolinium in freshwater and drinking water systems, Water Research, Volume 182, 2020.

Other sources include:

Macke et al. Fast and automated monitoring of gadolinium-based contrast agents in surface waters, Water Research, Volume 207, 2021.

Oluwasola et al. Gadolinium based contrast agents (GBCAs): Uniqueness, aquatic toxicity concerns, and prospective remediation. Journal of Contaminant Hydrology, Volume 250, 2022.

M. Nicholl. Seeking alternatives to gadolinium-based contrast agents. Healthcareineurope.com. July 22022

Bang G. Gadolinium Deposition in Brain: Current Scientific Evidence and Future Perspectives. Mol. Neurosci., 20 September 2018.

VALUE RECOGNIZED BY STAKEHOLDERS

Well-defined
target patient population

No MRI contrast agent advised
for patients with severe renal
impairment or acute kidney failure¹

“Those of us who have seen NSF are
frightened by it... you’ll get
buy-in from a lot of nephrologists...”
- Head of Renal section at US university hospital

+33%
more lesions

Improved visualization
of focal liver lesions (incl. metastases)
compared to unenhanced MRI²

“..we strictly followed the imaging guidelines,
images are fantastic”
- SPARKLE Investigator

84%
clinicians

Are likely to or definitely will use
Orviglance at launch for the target
patient population³

“The college [American College of Radiology] is
beginning to get a bit nervous... and they have a
growing sense of responsibility and accountability about
using these agents in high-risk patients.... our perception
of which agents are “safe” has changed... this is another
place where practice needed to evolve”
- SPARKLE Investigator; Head of Radiology at US hospital

1) Based on ACR clinical guidelines and regulatory drug class warning for gadolinium-based contrast agents in patients with severe renal impairment (an eGFR <30 ml/min/1.73 m²) or acute kidney failure.

2) Outcomes from re-read of Phase 1 and 2 studies

3) Market research for Ascelia Pharma conducted in Q4 2021/Q1 2022 by Two Labs Pharma Services N =254 oncologist, nephrologist, and radiologist responses

Q: On a scale of 1 (not at all likely) to 7 (definitely), how likely are you to use or suggest using Orviglance for your patients?

Quotes come from general observations and experience with Orviglance and the medical unmet need from dialogue with investigators and KOLs, i.e. they not specifically a comment to the data point mentioned on the slide



PORTFOLIO

ORVIGLANCE

Liver contrast agent in ongoing Phase 3

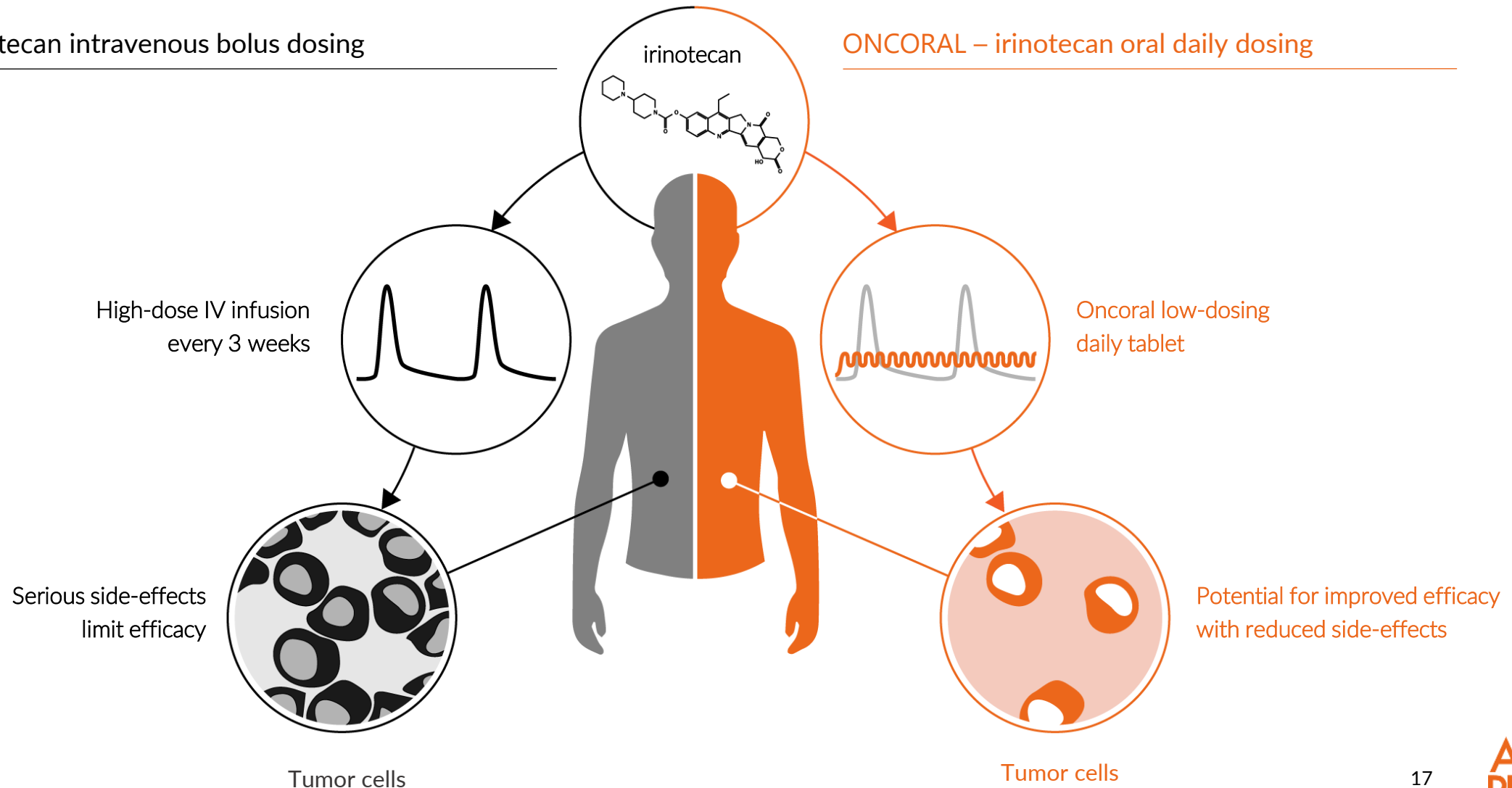
ONCORAL

Daily oral chemotherapy ready for Phase 2

IMPROVING IRINOTECAN EFFICACY and TOLERABILITY

Irinotecan intravenous bolus dosing

ONCORAL – irinotecan oral daily dosing

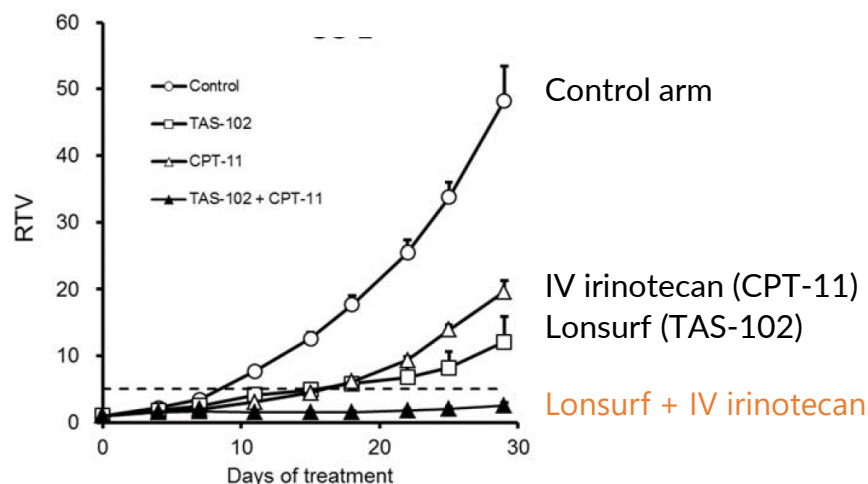


ONCORAL PHASE 2 IN GASTRIC CANCER

STRONG RATIONALE FOR GASTRIC CANCER

- High unmet need and clinically demonstrated
- Potential for synergistic effect between Lonsurf and irinotecan

Efficacy study in an animal model of gastric cancer¹
(Relative Tumor Volume, RTV)



LONSURF AND IRINOTECAN COMBINATION

RANDOMIZED CONTROLLED PHASE 2 STUDY

- ~100 patients with metastatic gastric cancer
- Study arms: Oncoral + Lonsurf vs. Lonsurf
- Endpoints: Progression Free Survival (Primary), Response Rate, PK, Safety (Secondary) and Overall Survival (follow-up)
- IND approved in the US
- To focus all resources on Orvigance, patient enrollment is not initiated until it can be done effectively

Clinical collaboration with

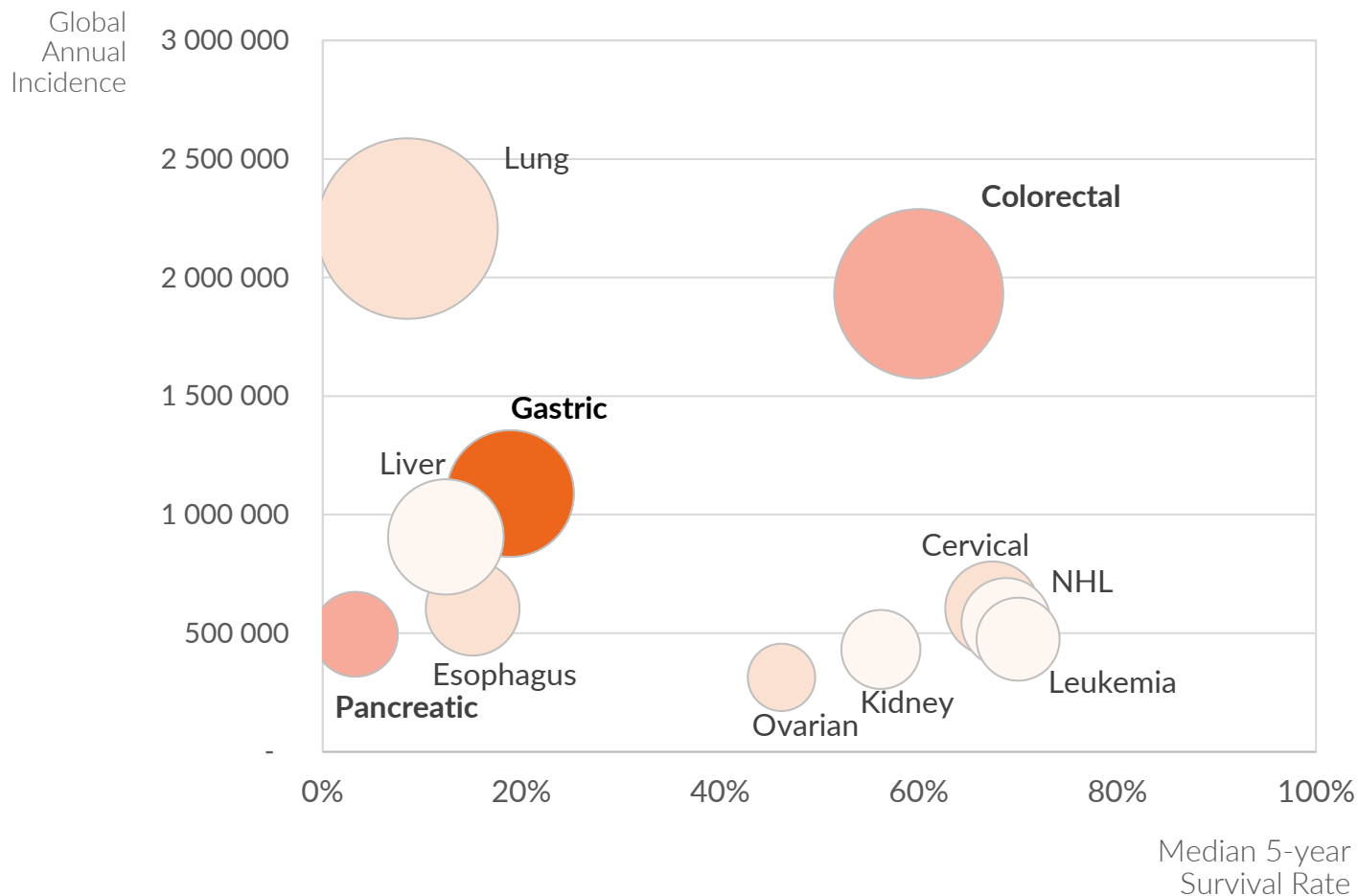


LONSURF is approved for treatment of metastatic gastric cancer and metastatic colorectal cancer

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

HIGH VALUE OPPORTUNITY IN GASTRIC CANCER AND EXPANSION

POTENTIAL FOR ORAL, DAILY DOSING OF IRINOTECAN³



A WELL-ESTABLISHED CHEMOTHERAPY
with recognized anti-tumor effect in solid tumors

- **Current focus: Gastric cancer**
 - Clinically demonstrated
 - Guidelines recognized
 - 3rd highest cancer deaths¹
 - Orphan disease (US and EU)
 - \$3-4bn market²
- **Approved indications for IV irinotecan**
- **Indications where IV irinotecan are clinically demonstrated & guidelines recognized**
- **Indications where IV irinotecan 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

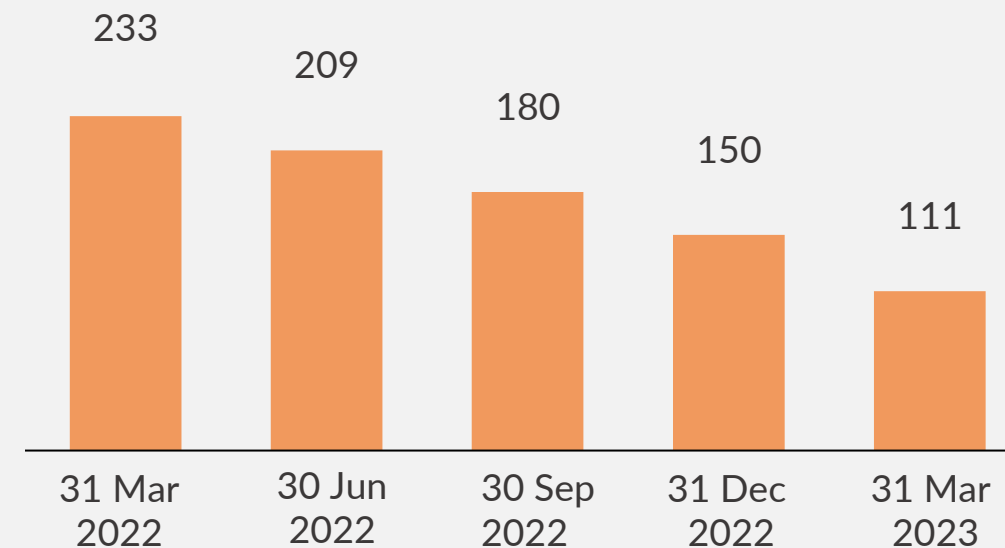
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FINANCIAL HIGHLIGHTS Q1 2023 – LIQUIDITY POSITION

Liquidity position:

- Liquid assets of 111 MSEK (\$10.8 million) by 31 Mar 2023
- Current cash position provides financing into Q4 2023 with our planned activities. Financial runway can potentially be extended into Q2 2024
- Average quarterly burn rate for the last four quarters has been 36-37 MSEK (\$3.5 million)

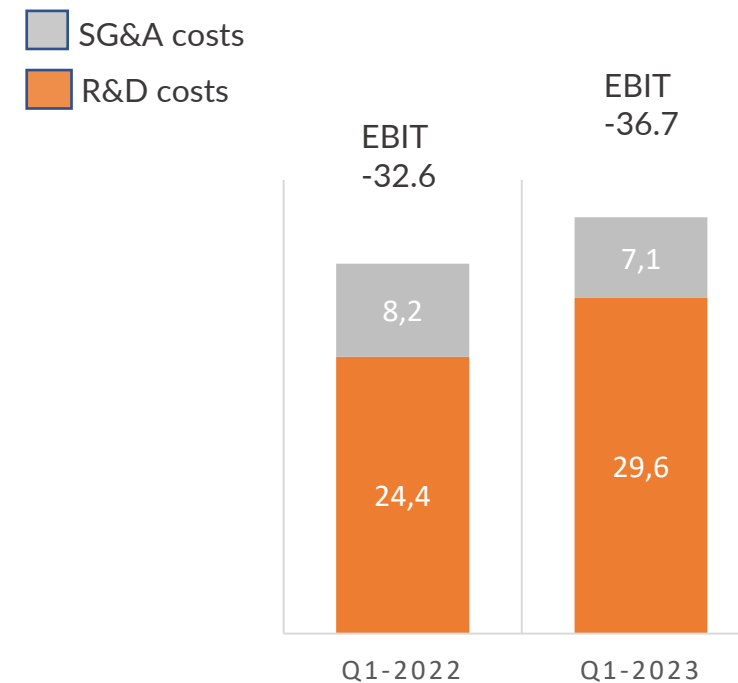
Liquid assets including marketable securities
(SEK million)



FINANCIAL HIGHLIGHTS Q1 2023 – OPERATING RESULTS

- Increased operating loss in Q1 2023 compared to the loss in Q1 2022 due to a higher activity level in Ascelia Pharma in the current period vis-à-vis corresponding period last year. This was driven by costs related to Orvigance Phase 3 clinical study.

EBIT and cost items (SEK million)



Notes:

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



MAKING PROGRESS ON OUR MISSION

PRIORITIES 2023



Orviglance Phase 3 patient enrollment - completed



Generate SPARKLE headline results – mid 2023



Prepare Orviglance launch – on track



SUBSTANTIAL VALUE CREATION OPPORTUNITIES AHEAD

Orvigance – a first-in-class orphan diagnostic drug targeting an \$800m addressable market

Orvigance phase 3 readout mid 2023; significantly improved visualization (same endpoint) in a 20-patient phase 2 study

Attractive potential for Oncoral in gastric cancer and other solid tumors

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