

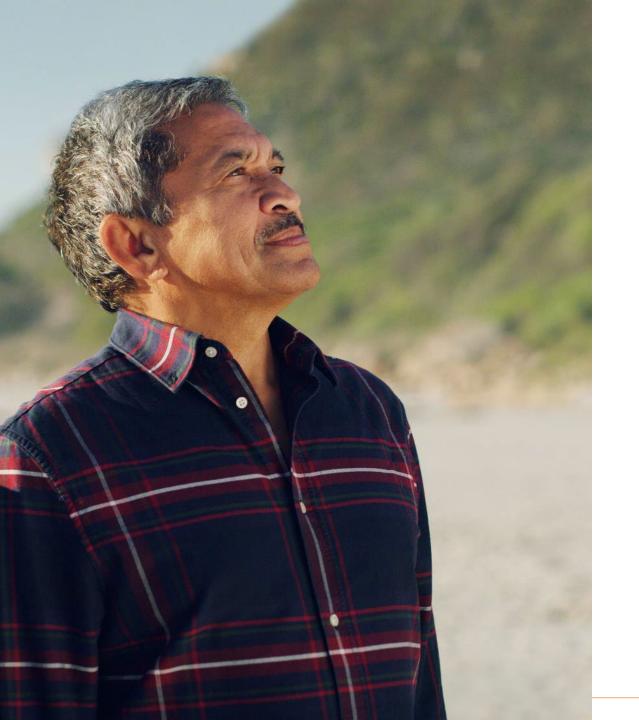
FORWARD LOOKING STATEMENTS

This presentation, which includes all information and data on the following slides, any oral statements made when presenting these slides, and any other material distributed or statements made at, or in connection with, such presentation (the "Presentation"), relates to Ascelia Pharma AB (publ) (hereinafter, together with its subsidiaries, the "Company") is furnished to you solely for your information and may not be reproduced or redistributed, in whole or in part, to any other person without the prior written consent of the Company. You should not rely upon it or use it to form the definitive basis for any decision, contract, commitment or action whatsoever, with respect to any transaction or otherwise.

The information included in this Presentation may contain certain forward-looking statements relating to the business, financial performance and results of the Company and/or the industry in which it operates. Forward-looking statements concern future circumstances and results and other statements that are not historical facts, sometimes identified by the words "believes", "expects", "predicts", "intends", "projects", "plans", "estimates", "aims", "foresees", "anticipates", "targets", and similar expressions. The forward-looking statements contained in this Presentation, including assumptions, opinions and views of the Company or cited from third party sources are solely opinions and forecasts which are subject to risks, uncertainties and other factors that may cause actual events to differ materially from any anticipated development. Neither the Company nor any of its affiliates, directors, employees or advisors provides any assurance that the assumptions underlying such forward-looking statements are free from errors nor do any of them accept any responsibility for the future accuracy of the opinions expressed in this Presentation or the actual occurrence of the forecasted developments. This Presentation speaks as of the applicable reporting date, and there may have been changes in matters which affect the Company subsequent to the date of this Presentation. Neither the issue nor delivery of this Presentation shall under any circumstance create any implication that the information contained herein is correct as of any time subsequent to the date hereof or that the affairs of the Company have not since changed, and the Company does not intend, and does not assume any obligation, to update or correct any information included in this Presentation.

Each person should make their own independent assessment of the merits of the Company and should consult their own professional advisors. By receiving this Presentation, you acknowledge that you will be solely responsible for your own assessment of the market and the market position of the Company and that you will conduct your own analysis and be solely responsible for forming your own opinion of the potential future performance of the Company's business.





We identify, develop and commercialize novel drugs that address unmet needs of people with rare cancer conditions





ASCELIA PHARMA - HIGHLIGHTS

Pipeline

ORVIGLANCE® – Registration phase

- First-in-class contrast agent for use in liver MRI in patients with severely impaired kidney function
- FDA Orphan Drug Designation
- Global addressable market of USD 800 million
- Phase 3 study successful and clinical development completed

ONCORAL – Phase 2-ready

- Daily, oral irinotecan chemotherapy
- Clinical collaboration with Taiho Oncology
- Opportunity in gastric cancer and other solid tumors

Global outlook and Nordic roots

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



ORVIGLANCE®

Liver diagnostic imaging drug

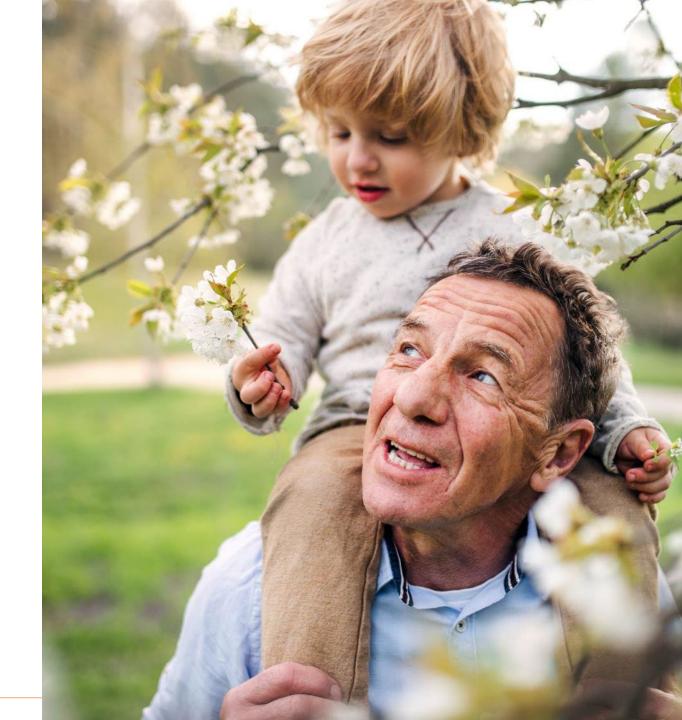
ONCORAL

Daily, oral chemotherapy



ATTRACTIVE ORVIGLANCE OPPORTUNITY

- A well-defined unmet need for liver imaging in cancer patients with impaired kidney function
- A global addressable market opportunity of USD 800 million
- Clinical development completed with 9 studies and strong phase 3 results
- Commercial scale manufacturing
- Orviglance advances to **regulatory filing and approval** phase
- Commercialization with partner



ORVIGLANCE - FILLING AN UNMET NEED IN LIVER MRI

Patient Landscape

Liver metastases are 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

Treatments

Contrast enhanced MRI is the gold standard



Contrast enhanced MRI

- Detection and visualization
- Surgery & drug treatment plan
- Post-treatment surveillance

Unmet Need

A role for ORVIGLANCE in patients with severe kidney impairment



Patients with healthy kidneys

 Receive MRI with gadoliniumbased contrast agent (GBCA)

Patients with severe kidney impairment

- Black Box warning for gadolinium contrast agents
- Risk of severe side effects, incl. Nephrogenic Systemic Fibrosis (NSF)

ORVIGLANCE

Aims to be the imaging option without gadolinium-related safety risks in patients with severe kidney impairment

- Manganese based
- Liver specific



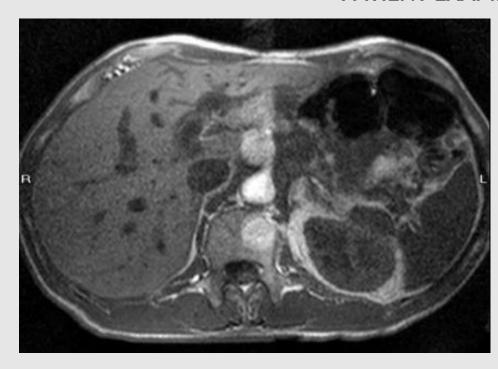
¹⁾ Riihimäki, M. et al. Patterns of metastasis in colon and rectal cancer. Sci. Rep. 6, 29765; doi: 10.1038/srep29765 (2016); Journal of Pathology, 2014, 232:23-31

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

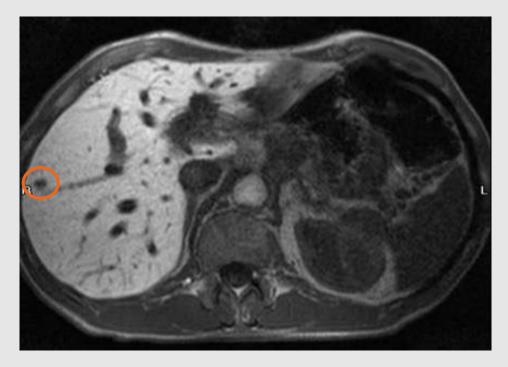
³⁾ Rahbari et al. Metastatic Spread Emerging From Liver Metastases of Colorectal Cancer: Does the Seed Leave the Soil Again? Annals of Surgery: February 2016 - Volume 263 - Issue 2 - p 345–352

STRONG LIVER ENHANCEMENT WITH ORVIGLANCE

PATIENT EXAMPLE FROM PHASE 2 STUDY



UNENHANCED liver MRI (without contrast agent)



ORVIGLANCE contrast enhanced liver MRI Liver metastasis appears with ORVIGLANCE



PIVOTAL ORVIGLANCE PHASE 3 SUCCESSFULLY COMPLETED

SPARKLE CLINICAL STUDY

- Oral manganese-based liverspecific MRI contrast agent
- Orphan Drug designation (US) for patients for which current gadolinium-based contrast agents are medically inadvisable

Patients

- Global study, 85 patients from 32 study sites in USA, Europe, and Latin America
- Known or suspected focal liver lesions and severe kidney impairment

Endpoints

- Primary: Improved lesion visualization (Lesion border delineation + lesions contrast)
- Secondary: Other efficacy endpoints, incl. quantitative image improvement, and safety

Comparator

- Unenhanced MRI + Orviglance MRI vs Unenhanced MRI
- Each patient their own control

Evaluation

• Centralized evaluation by 3 independent radiologists

Follow-up

• Up to 7 days for safety



STRONG SUPERIORITY OF ORVIGLANCE IN PHASE 3

Primary Endpoint Met Successfully

- Phase 3 study demonstrated strong superiority in visualization of focal liver lesions with Orviglance (CMRI) compared to unenhanced MRI
- Visualization scored **significantly higher** with Orviglance than without for all three readers with
 - statistical significance (p<0.001)
 - strong and conclusive reliability of the data (including variability)



 Common adverse events were consistent with previous studies, such as mild to moderate nausea; no serious adverse drug reactions were observed

PRESS RELEASE

02 May 2024 11:12:00 CEST



Ascelia Pharma Successfully Meets Primary Endpoint with Strong Headline Results in Orviglance Phase 3 Study

Ascelia Pharma AB (publ) (ticker: ACE), a biotech focused on improving the life of people living with rare cancer conditions, today announced that liver imaging drug candidate, Orviglance®, significantly improved visualization of focal liver lesions, successfully meeting the primary endpoint in the pivotal Phase 3 study SPARKLE. Investors and analysts are invited to the virtual Investor Update: "Bringing Orviglance to Patients", on Tuesday, 7 May at 14:00 CEST



CLINICAL DEVELOPMENT COMPLETED



Nine studies with consistent positive efficacy and safety results¹⁻⁷

286 patients and healthy volunteers Phase 1 studies demonstrated safety, absorption and signal intensity Total 4 studies with 126 healthy volunteers, incl. dose-finding, hepatic impairment and food effect

Phase 2 studies demonstrated efficacy and safety in patients with known metastases Total 4 studies with 75 patients

Orviglance efficacy confirmed vs. gadolinium & unenhanced in centralized evaluation Centralized evaluation with 3 readers of phase 2 study (20 patients) with liver metastases using same endpoint as in phase 3

Phase 3 study confirmed efficacy and safety in the target population Pivotal study on visualization of focal liver lesions and safety in patients with severe kidney impairment (85 patients)



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)

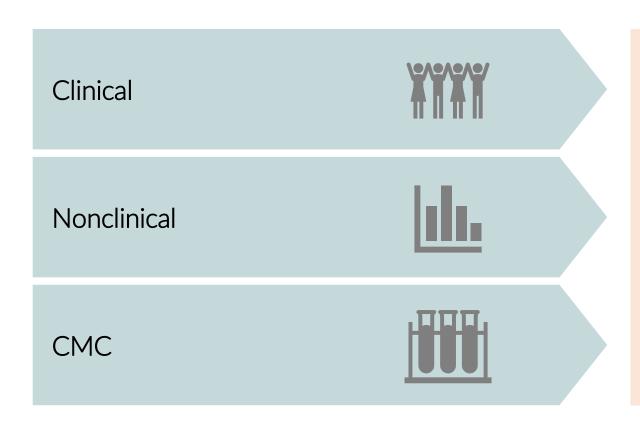
⁷⁾ Results from Phase 1 and 2 and Food Effect and Hepatic Impairment Studies presented at RSNA and ESGAR conferences between 2022 and 2023

PHASE 1 & 2 PROVIDE STRONG EVIDENCE FOR ORVIGLANCE

Trial #	Phase	Subjects	Study design	Key results
CMC-P001		18 healthy subjects (+2 placebo)	Open-label dose-escalation study	Data suggested that Orviglance may be an effective MRI contrast medium
CMC-P010		32 healthy subjects	Randomised, double-blind, cross-over, dose-response	Liver signal intensity increase most pronounced at 800 mg dose (highest dose tested)
0188-20	'	39 healthy subjects	Open-label, randomized, 2- period, 2-way cross-over	Intake of light meal prior to Orviglance MRI provides similar liver image enhancement as in a fasting condition
ACE-MAN- P017		35 healthy subjects	Open-label, single dose, sequential cohort	Orviglance was well tolerated in patients with liver impairment. Confirms excretion primarily via the liver and not the kidney
CMC-P002		18 patients with liver metastasis	Open-label – each patient own control	Diagnostic quality scores improved after Orviglance
CMC-P003		20 patients with liver metastasis	Randomized, parallel group, open-label	Improved MRI quality of Orviglance most pronounced at 3 and 6 hours
CMC-P004a	II	20 patients with liver metastasis	Centralized evaluation of randomized cross-over	Strong superiority in visualization of focal liver lesions with Orviglance (CMRI) compared to unenhanced MRI and no significant difference vs. gadobenate (MultiHance; gadolinium-based MRI contrast agent)
CMC-P005		17 patients with liver lesions	Randomized, parallel group, open-label	Improvement of the delineation of focal liver lesions after Orviglance



ADVANCING ORVIGLANCE TOWARDS APPROVAL



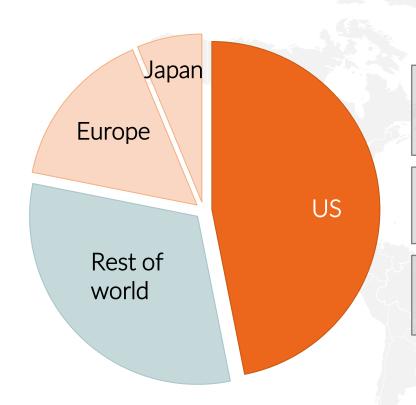
US FDA

Timely submission and approval by the US FDA as an orphan drug with an optimal label for use in the target population

- Full Clinical Study Report early Q4 2024
- Conclusions from FDA pre-submission meeting by Q1 2025
- NDA submission mid-2025



ATTRACTIVE GLOBAL ADDRESSABLE MARKET



Global addressable market of USD 800 million, half of this in the US

Focused launch for well-defined patient population in liver imaging in cancer patients with severe kidney impairment

Global commercialization through partners



CREATING VALUE BY PARTNERING FOR COMMERCIALIZATION

Objectives for commercialization

- Create revenue stream with limited investment required
- Leverage established commercialization capabilities and scale
- Maximize value with globally optimized launch efforts



Secure LAUNCH READINESS and PARTNERING





US MARKET OPPORTUNITY



Abdominal imaging procedures in cancer patients with severe kidney impairment based on epidemiology and real-world data¹

~100,000 procedures annually



Around 2,000 radiologists or 400 provider accounts serve 75% of kidney impaired patients⁴

~400 accounts



Price range benchmarks based on innovative diagnostics, payer and expert input, and price testing^{2, 3} \$3,000 - \$4,500 price range



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

⁴⁾ Ascelia Pharma analysis based on market research with Decision Resources Group, 2020



UNMET NEED RECOGNIZED IN CLINICAL PRACTICE

NSF* risk

with warnings for target population

"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 (from Ascelia Pharma Advisory Board meeting)

+90%



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

+16%



of providers have experienced GBCA-induced NSF

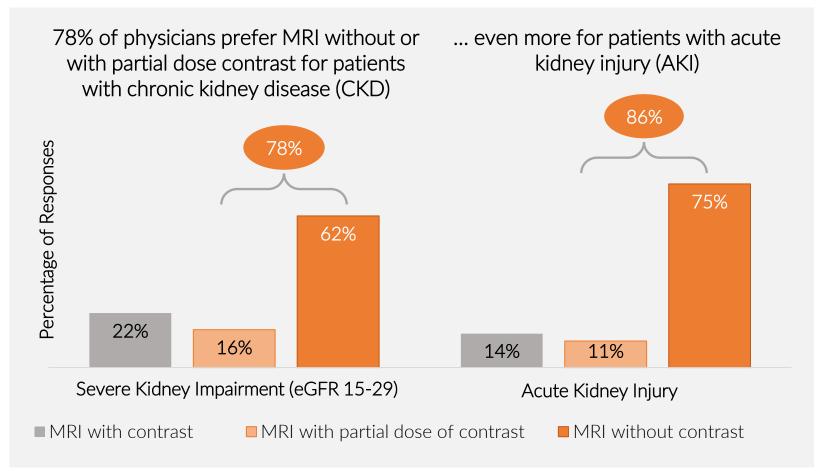
""The college [American Colleague of Radiology]...have a **growing** sense of responsibility and accountability about using these agents in high-risk patients.... our perception of which agents are "safe" has changed... this is another place where practice needed to evolve" - SPARKLE Investigator and Head of Radiology at US university hospital

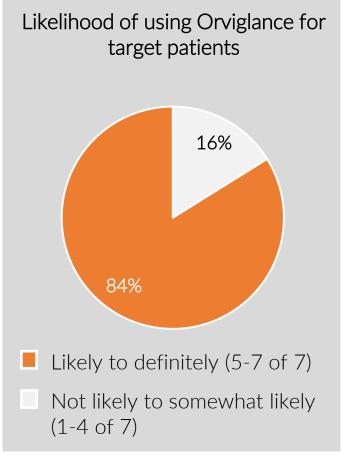
*nephrogenic systemic fibrosis















ORVIGLANCE MEDICAL ADVISORY BOARD

Nine leading US experts in liver disease and imaging shared their experience and advice

Key topics included

- Trends in liver imaging
 - SAGE (Symptoms Associated with Gadolinium Exposure)
 - LI-RADS (Liver Reporting & Data System)
 - Abbreviated Protocols (Shortened MRI by eliminating selected steps)
- Guidelines
- The journey of a patient with liver lesions
- The role of ORVIGLANCE in clinical practice

Advisors include

- Dr. Alessandro Furlan (Radiology, University of Pittsburgh Medical Center)
- Dr. Alvin Silva (Radiology, Mayo Arizona)
- Dr. Amit Singal (Hepatology, University of Texas Southwestern Medical Center)
- Dr. Bachir Touli (Radiology, Mount Sinai New York)
- Dr. Claude Sirlin (Radiology, University of California, San Diego)
- Dr. Jeffrey Weinreb (Radiology, Yale University)
- Dr. Kathryn Fowler (Radiology, University of California, San Diego)
- Dr. Richard Do (Radiology, Memorial Sloan Kettering Cancer Center)
- Dr. Victoria Chernyak (Radiology, Memorial Sloan Kettering Cancer Center)





MOMENTUM FOR AN ALTERNATIVE TO GADOLINIUM

Deposition in Brain & Organs

concerns around safety for all patients

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

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



published: 20 S

healthcare-in-europe.com

Gadolinium Deposition in Brain: Current Scientific Evidence and Future Perspectives

Bang J. Guo¹, Zhen L. Yang² and Long J. Zhang^{1,2*}

Department of Medical Imaging, Jinling Hospital, Nanjing Clinical School, Southern Medical University, Nanji
 Department of Medical Imaging, Jinling Hospital, Medical School of Nanjing University, Nanjing, China

Water Contamination

scrutiny of environmental impac

Gadolinium is excreted in urine. Hard to remove in our sewage systems, it is discharged into our environment and drinking water

"The gadolinium-anomaly in Tone River [Japan] increased from 851% (sampled in 1996) to 6,545% i.e. 7.7 times, reflecting the increased use of gadolinium-based contrast agents (GBCAs) in hospitals" 1



Future with Less/No Gadolinium

focus of leading gadolinium manufactures

Low dose full-body gadolinium contrast agents

- FDA approved in priority review (2022) and EMA (2023) approved (gadopiclenol, Guerbet/Bracco)
- Initiation of Phase 3 (gadoquatrane, Bayer 2023)

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

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



¹⁾ Kumasaka et al. Anthropogenic gadolinium in the Tone River (Japan): an update showing a 7.7-fold increase from 1996 to 2020, European Radiology Experimental 8, Article number 64 (2024) Other sources include:

REVIEW ARTICLE

ASCELIA PHARMA

OPEN

Oral Manganese Chloride Tetrahydrate: A Novel Magnetic Resonance Liver Imaging Agent for Patients With Renal Impairment Efficacy, Safety, and Clinical Implication

Torkel B. Brismar, MD, PhD, Dominik Geisel, MD, Nikolaos Kartalis, MD, PhD, Beatrice L. Hanna Persson Hedman, PhD, and Andreas Norlin, PhD



JOBS

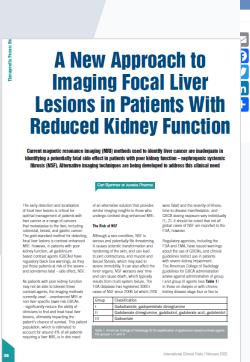
HOTBEDS

Constructs with or without modified uridines

Find yours →

NEWSLETTERS

Reimagine imaging for people with poor kidney function



MAGAZINE V PHOTO GALLERIES PODCASTS COMPARISON CHARTS

Search

FDA COVID-19 IMAGING V INFORMATION TECHNOLOGY V WOMEN'S HEALTH V RADIATION ONCOLOG

NEWS | CONTRAST MEDIA | MAY 08, 2024

Ascelia Pharma Meets Primary Endpoint in Phase 3 Study of Orviglance Liver Imaging Contrast Agent Drug Candidate

Swedish biotech company Ascelia Pharma has announced that its liver imaging drug candidate, Orviglance, significantly improved visualization of focal liver lesions, successfully meeting the primary endpoint in the pivotal Phase 3 study SPARKLE. Orviglance, whose CEO Magnus Corftizen is shown here, is in development as a first-in-class contrast agent for use in liver MRI in patients with severely impaired kidney function and has been granted FDA Orphan Drug Designation. Ascelia Pharma Successfully Meets Primary Endpoint with Strong Headline Results in Orviglance Phase 3 Study

CAREER RESOURCES

Published: May 02, 2024

ASCELIA PHARMA AB (PUBL) (TICKER: ACE),
A BIOTECH FOCUSED ON IMPROVING THE

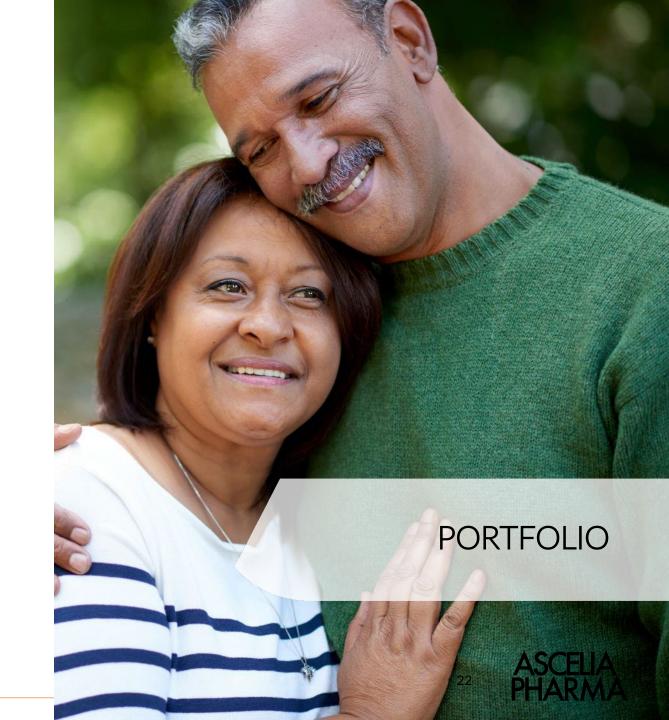


ORVIGLANCE®

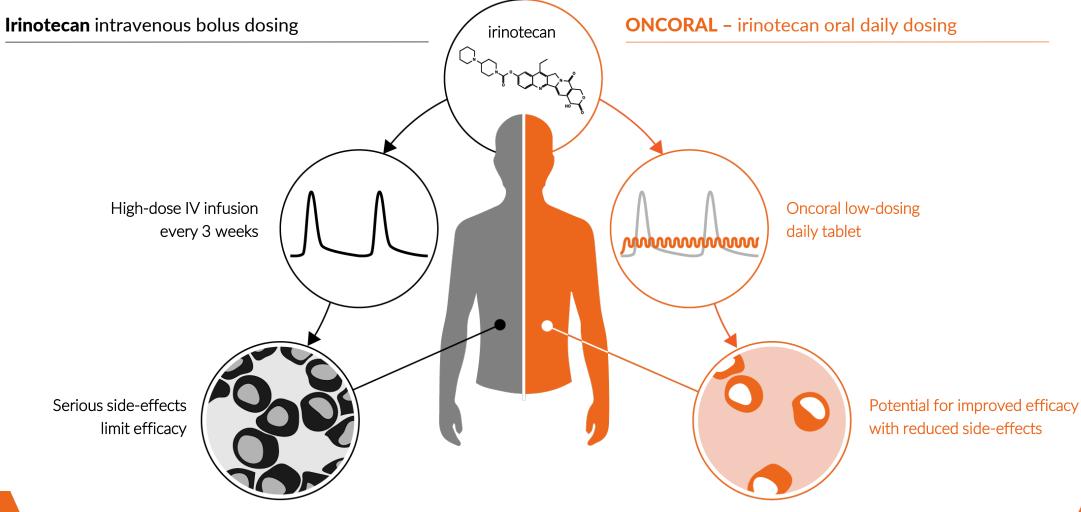
Liver diagnostic imaging drug

ONCORAL

Daily, oral chemotherapy



IMPROVING IRINOTECAN EFFICACY and TOLERABILITY

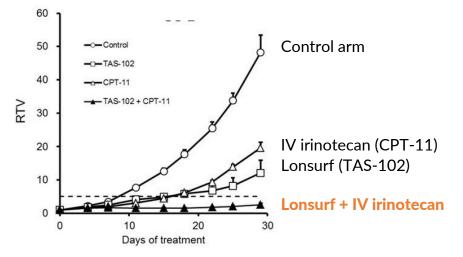


ONCORAL PHASE 2 IN GASTRIC CANCER

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 Orviglance, patient enrollment is not initiated until it can be done effectively

Clinical collaboration with



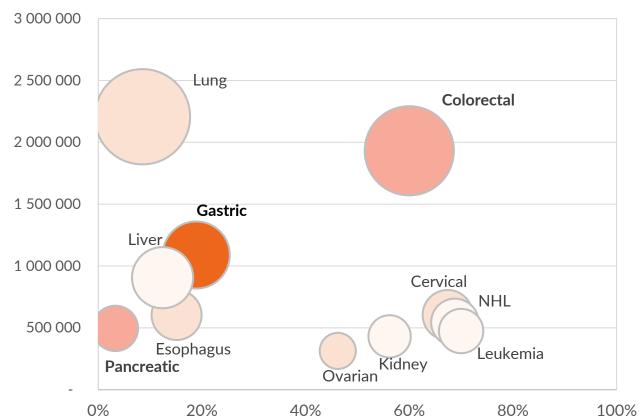
LONSURF is approved for treatment of metastatic gastric cancer and metastatic colorectal cancer



HIGH VALUE OPPORTUNITY IN GASTRIC CANCER AND EXPANSION

POTENTIAL FOR ORAL, DAILY DOSING OF IRINOTECAN³





Median 5-year Survival Rate

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





Advance to approval

SUBSTANTIAL ORVIGLANCE VALUE CREATION OPPORTUN



Secure partnering and commercialization readiness

Timely submission and approval by the US FDA as an orphan drug with an optimal label for the use in the target population

Focused launch for well-defined patient population with 800 MUSD annual addressable market.

Partner driven global commercialization

- Full SPARKLE Clinical Study Report early **Q4 2024**
- Conclusions from FDA pre-submission meeting by Q1 2025
- NDA submission mid-2025 with Ascelia Pharma and partner readiness

- Advance launch readiness.
- Establish commercialization partnership(s)



ASCELIA PHARMA

ascelia.com

