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ASCELIA PHARMA
COMPANY PRESENTATION

ADVANCING ORPHAN ONCOLOGY

MAY 2020

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ASCELIA PHARMA: ADVANCING ORPHAN ONCOLOGY

A global health burden

44 million people live with cancer; 18 million are diagnosed each year[1]

USD 150 bn spent yearly on cancer therapies alone[2]

Orphan drugs represent 12 of 15 new active substances in oncology launched in the US in 2018[2]

Dedicated to unmet needs in orphan oncology

Drugs with a clear development and market pathway

- **Advancing liver imaging** with orphan MRI contrast agent with no competition (in ongoing Phase 3)
- **Advancing chemotherapy** with novel tablet for gastric cancer (Phase 2 ready)

Capabilities to bring new compounds to market

- World class cross-functional team
- Headquartered in Malmö, Sweden
- Listed on NASDAQ STOCKHOLM in 2019 (ticker: ACE)
- Solid financial position with SEK 169 million in liquid assets

Sources
1) https://canceratlas.cancer.org/the-burden/the-burden-of-cancer/ (2018 figures)
2) Global Oncology Trends 2019, IQVIA (2018 figures)

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CLINICAL STAGE PORTFOLIO ADDRESSING CLEAR UNMET NEEDS

Drug candidate	Indication	Phase 1	Phase 2	Phase 3	Filing	Launch
Mangoral • Only non-gadolinium imaging drug • No competing products • $350-500M market with upside potential • De-risked Phase 3 clinical program • Orphan Drug Designation	**Visualisation of focal liver lesions** • Liver metastases • Primary liver cancer • Benign lesions	✓	✓	2020 – H2 2021	H1 2022	Q4 2022– H1 2023
Oncoral • Novel tablet chemotherapy formulation • Phase 1 completed with promising results • Gastric cancer is an Orphan indication	**Treatment of gastric cancer**	✓	2021 – 2023	Strong case for development and commercialisation partnering after phase 2		

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STRONG AND EXPERIENCED MANAGEMENT AND BOARD

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Kristian Borbos
Chief Financial Officer

Carl Bjartmar, MD, Ph.D
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MANGORAL

LIVER MRI CONTRAST AGENT IN PHASE 3 CLINICAL STUDIES

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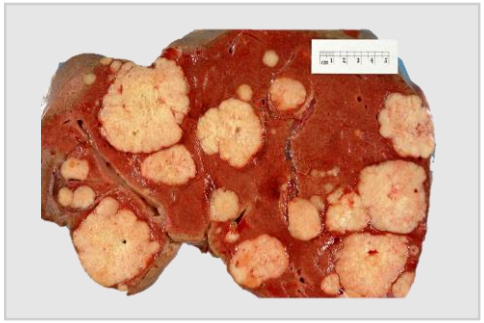
LIVER METASTASES – A MAJOR CHALLENGE IN ONCOLOGY

LIVER METASTASES COMMON IN MANY CANCER TYPES

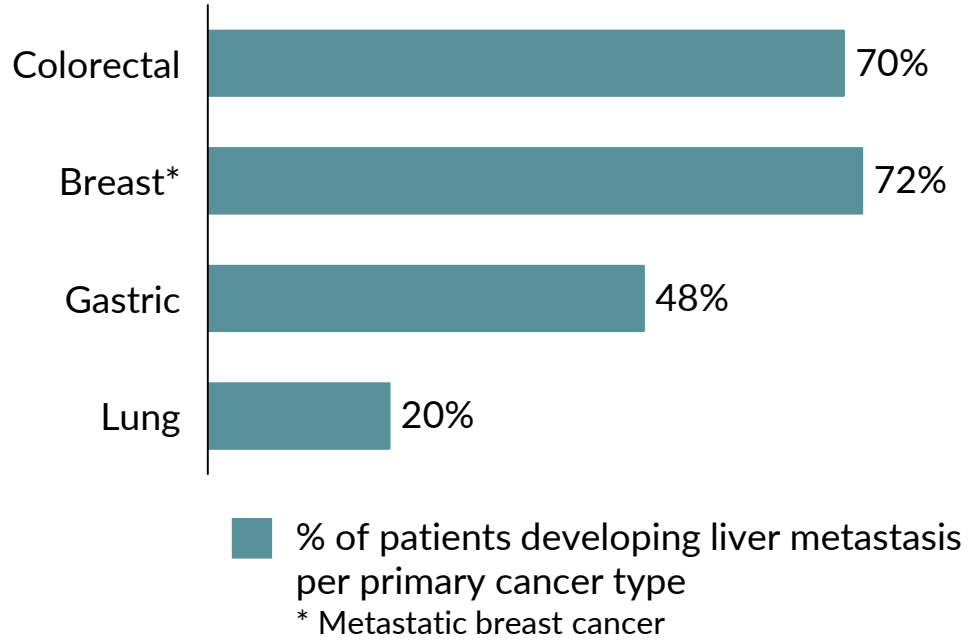
The liver is the **most frequent** organ for metastases after lymph node[3] and often the first site of metastasis

- 70% of patients with colon cancer will develop liver metastases[1]
- Liver metastases are also common in other cancer types such as lung cancer, gastric cancer, metastatic breast cancer[2,3] etc.

Liver metastases often the **cause of mortality** (not primary tumour)[4]



Incidence of liver metastasis in various primary cancers [1-4]



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) Oncotarget, 2016, 7(32):52307; Lung Cancer, 2014, 86:78-84 (6):29765
3) 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
4) 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

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LIVER METASTASES: HOW TO FIND AND WHAT TO DO

DETECT AND LOCALISE

Liver MRI is the **most sensitive** method for detection of liver metastases[2)]

Gadolinium based imaging drugs are given to maximise accuracy of liver metastasis detection in MRI

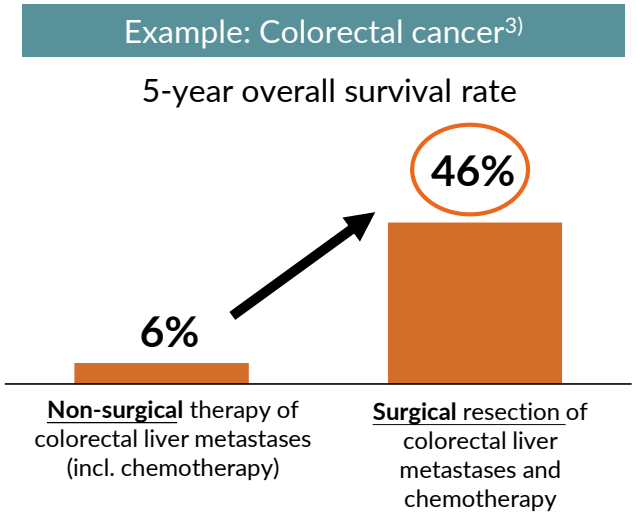
TREAT

Treatment options for liver metastases are:

- Surgical resection (only if detected early)
- Localised therapies (ablation embolisation, radiation)
- Drug therapy

IMPROVE SURVIVAL

Accurate, early detection of liver metastases significantly impact treatment decisions and patient survival



1) 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
2) Albiin N et al. Manganese chloride tetrahydrate (CMC-001) enhanced liver MRI: evaluation of efficacy and safety in healthy volunteers. MAGMA. 2012 Mar 8
3) Clinical Colorectal Cancer, Vol. 15, No. 4, Dec 2016, e183-192

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GADOLINIUM – THE STANDARD OF CARE CONTRAST AGENT IS NOT SAFE FOR ALL PATIENTS

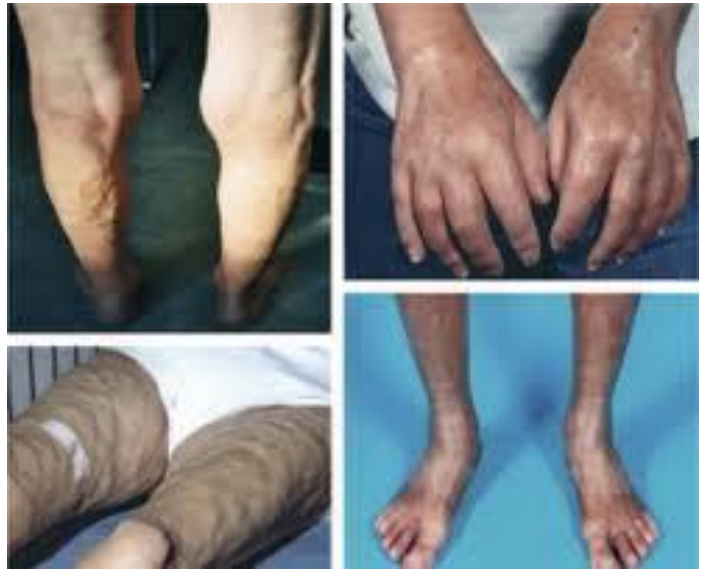
SAFETY RISKS ASSOCIATED WITH GADOLINIUM

- Gadolinium (toxic heavy metal) based contrast agents (GBCA) in **renally impaired patients and patients with acute kidney injury** are linked to Nephrogenic Systemic Fibrosis (NSF)
  - An aggressive fibrosing disease in which fibrous connective tissue seeks to replace normal tissue of the skin, muscle and deep inner organs
  - A serious and potentially fatal condition multiorgan disorder with no treatments available
- Since 2006 there have been 3,125 cases of NSF as a result of GBCA use in the US, 745 of which resulted in death
- Gadolinium's link to NSF has been acknowledged by FDA and EMA, with black box warnings and label changes issued

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

FDA

Clinical presentation of NSF



NSF causes the skin to gradually become fibrotic and adheres to the underlying fascia causing hyperpigmentation, blistering and ulceration

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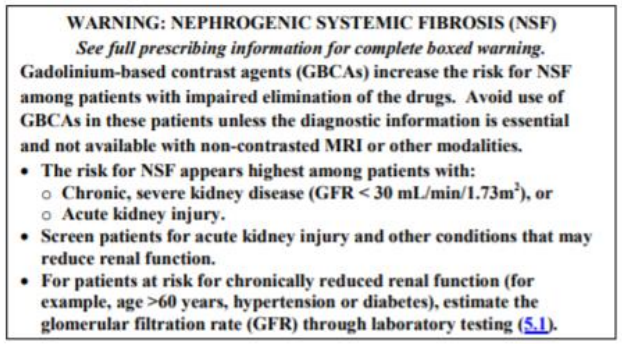
MANGORAL – MANGANESE BASED LIVER CONTRAST AGENT

TODAY

NORMAL KIDNEY FUNCTION
Gadolinium imaging drug

POOR KIDNEY FUNCTION
NO imaging drug due to potentially deadly side-effects (black-box warning)



WARNING: NEPHROGENIC SYSTEMIC FIBROSIS (NSF)

See full prescribing information for complete boxed warning.

Gadolinium-based contrast agents (GBCAs) increase the risk for NSF among patients with impaired elimination of the drugs. Avoid use of GBCAs in these patients unless the diagnostic information is essential and not available with non-contrasted MRI or other modalities.

- **The risk for NSF appears highest among patients with:**
  - **Chronic, severe kidney disease (GFR < 30 mL/min/1.73m^2), or**
  - **Acute kidney injury.**
- **Screen patients for acute kidney injury and other conditions that may reduce renal function.**
- **For patients at risk for chronically reduced renal function (for example, age >60 years, hypertension or diabetes), estimate the glomerular filtration rate (GFR) through laboratory testing (5.1).**

TOMORROW

NORMAL KIDNEY FUNCTION
Gadolinium imaging drug

POOR KIDNEY FUNCTION
3-4% of patients
MANGORAL imaging drug
(based on manganese)

Mangoral aims to be the only standard of care liver MRI imaging drug for patients with impaired kidney function

280,000
patients with impaired kidney function in major markets

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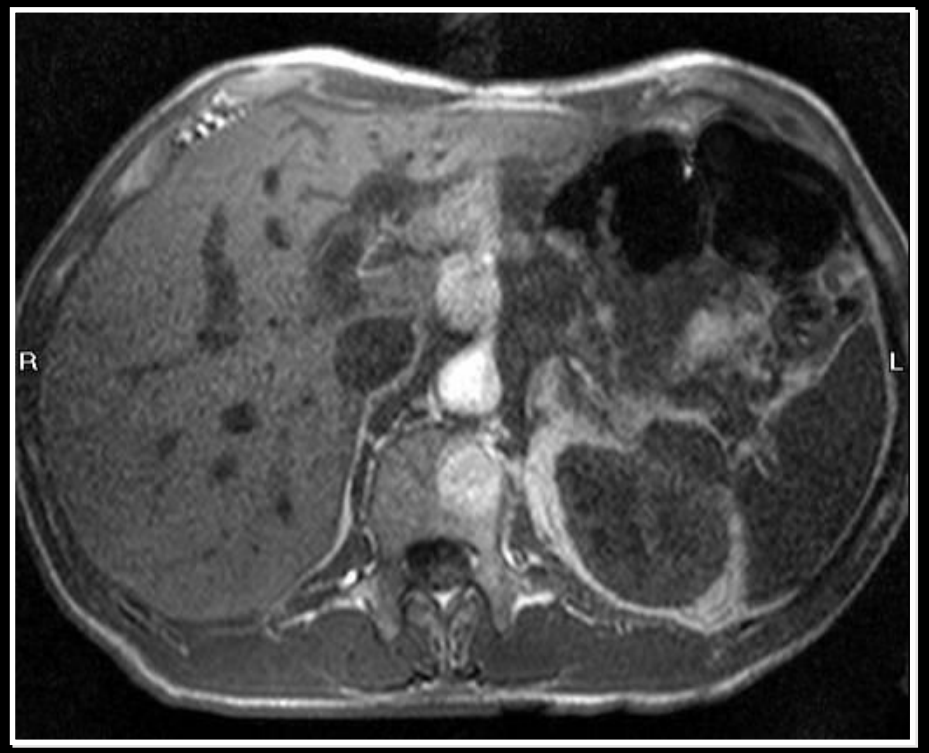
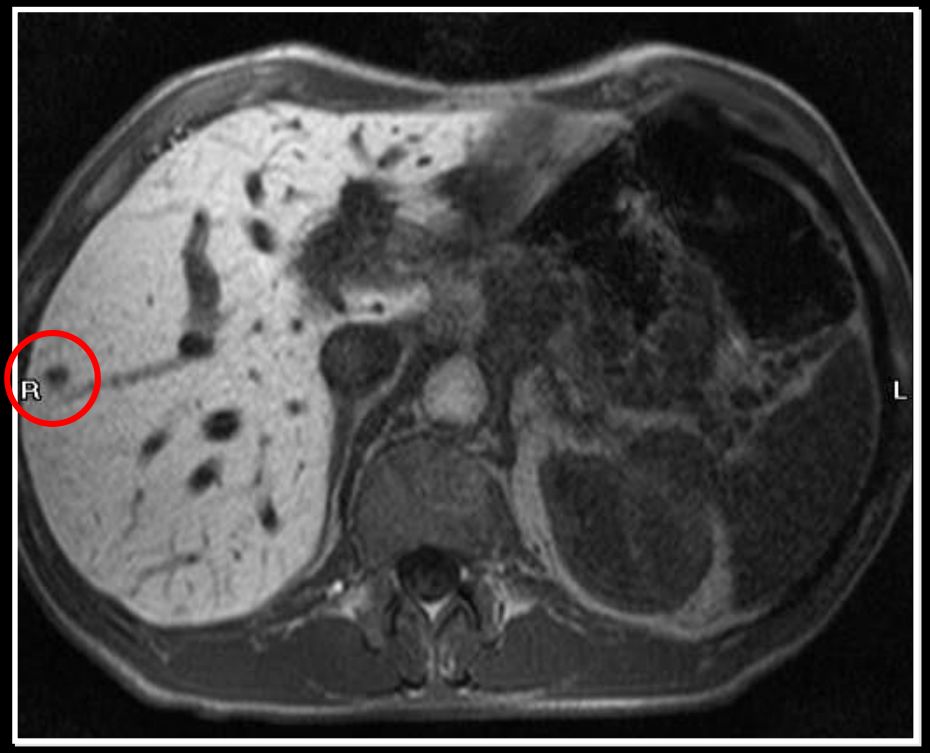
MANGORAL MAKES A REAL DIFFERENCE

PATIENT EXAMPLE FROM PHASE II STUDY



Unenhanced liver MRI

(standard of care today in target patient population)



Mangoral enhanced liver MRI

Liver metastasis appear with Mangoral

Source: Patient with colorectal cancer. (Study CMC-P002)

MANGORAL CLINICAL ACTIVITES

Study	Objective of the study	Site location and no. of patients	Time schedule
Pivotal Phase 3 study ("SPARKLE")	Assess efficacy and safety of Mangoral in patients with severely reduced kidney function and with known or suspected liver lesions	Global multicentre study in up to 200 patients	• Study ongoing • Study results expected in H2-2021
Hepatic study	Assess the influence of hepatic impairment on the safety, pharmacokinetics and pharmaco-dynamics of Mangoral	Open-label study on 24 healthy and hepatically impaired participants at the Texas Liver Institute, San Antonio, US	• Study ongoing • Study expected to be completed in 2020
Food effect study	Assess the effect of food intake on Mangoral uptake	Study contract to be awarded	• Study preparations ongoing • Short study, expected to be completed in 2020

These studies, together with the already completed Phase 1 and 2 studies,
ensure a comprehensive data package for the regulatory submissions in key markets

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DE-RISKED PHASE 3 STUDY UNDERPINNED BY STRONG DATA FROM COMPLETED STUDIES AND STUDY DESIGN

Strong data package for Mangoral

Six phase 1 and 2 clinical studies completed

Consistent strong efficacy readout and safety profile

Blind read study of all imaging data presented at major conferences

- The study with 178 persons further underlined that Mangoral significantly improves MRI performance
- 33% more lesions were detected after Mangoral enhanced MRI
- **Mangoral significantly improved lesion visualisation**
  Delineation: p-value <0.0001
  Conspicuity: p-value <0.0001

Phase 3 registration-enabling study (study ongoing)

Number of patients	Global study in up to 200 patients
Endpoint	**Lesion visualisation** • Lesion border delineation (border sharpness of lesions) • Conspicuity (lesion contrast compared to liver background)
Comparator	Unenhanced MRI + Mangoral MRI *vs.* Unenhanced MRI
Follow-up	72 hours
Randomisation	**No** – each patient at his/her own control
Validation	Phase 3 program has been discussed with FDA and EMA

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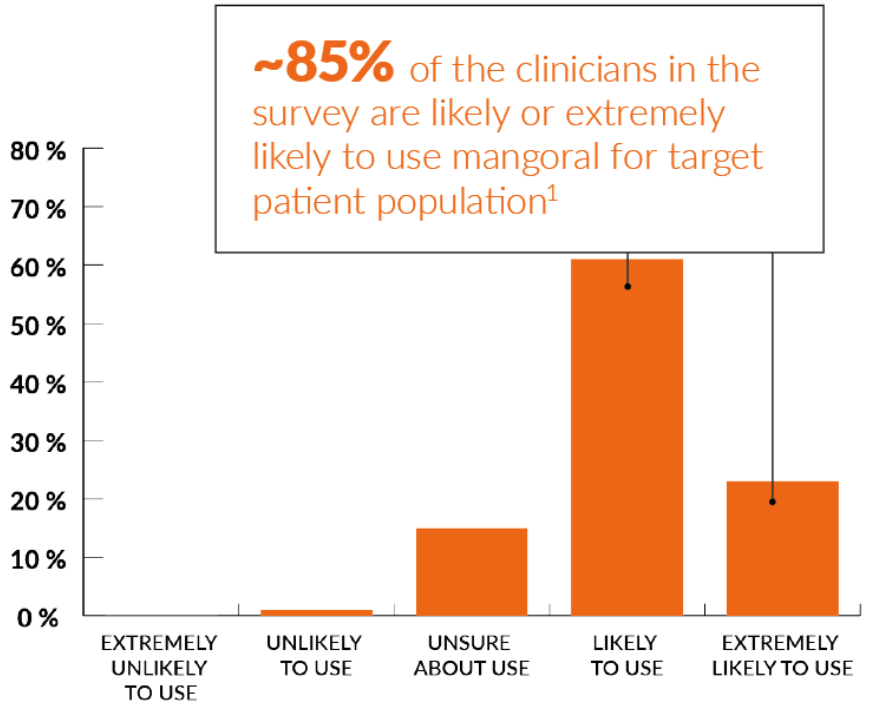
ADDRESSING UNMET NEEDS OF 280,000 PATIENTS IN KEY MARKETS

Confirmed unmet medical need



Value to payers, physicians and patients

Only liver MRI contrast agent for patients with poor kidney function or acute kidney failure[2] (~280,000 patients in major markets) — **~280,000**

Improved visualisation of focal liver lesions (incl. metastases) compared to unenhanced MRI. (+33% more lesions in phase 1&2 studies) — **+33%**

Early detection of focal lesions and metastases allows early intervention and higher survival rate (94% of clinicians confirm[3]) — **94%**

[1] Market research by Back Bay Life Science Advisors with interview of 84 radiologists across the US regarding clinical practices in liver MRI scanning, the use of gadolinium and mangoral product profile. Notes: 1) Survey answers to question: 'What is your overall opinion of this product for its target population of patients with known or suspected liver metastases and severe renal insufficiency or acute kidney injury?' 2) Based on regulatory drug class warning on use of gadolinium-based contract agents in patients with renal impairment (an eGFR <30 ml/min/1.73 m^2) or acute kidney failure. 3) Survey answers to 'Using contrast MRI is important for early intervention, to detect small lesions, which if removed can be curative e.g. colorectal cancer metastases?'

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MANGORAL IS THE ONLY PRODUCT IN A $350-500M MARKET

Addressable market

8.5 million people	… in key markets have suspected liver metastases or primary liver cancer (based on relevant primary cancers, colorectal, breast, lung and gastric)
280,000 of these	… equivalent to 3-4% have poor kidney function (stage 5, 4 or 3 worsening or acute kidney injury – with higher prevalence in elderly and cancer populations)
need MRI	… for diagnosis, monitoring and surveillance
at $1,500 - 3,000 per dose	… based on unmet needs in patient population and value of contrast enhanced MRI
$350–500 million	**… addressable market annually with no competing drug**

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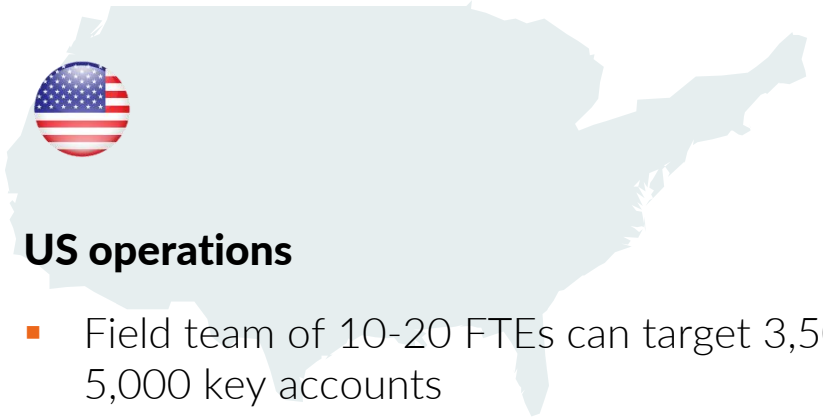
OUTLOOK FOR MARKET OPTIMAL LAUNCH STRATEGY

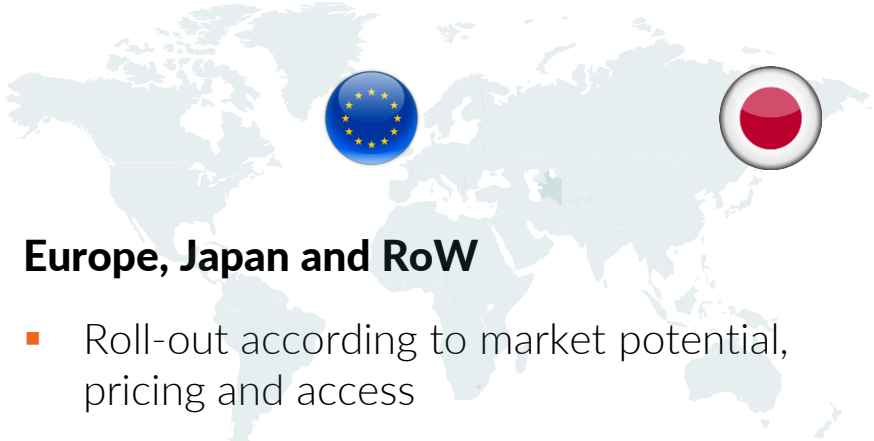
Strong case for own US commercialisation



US operations

- Field team of 10-20 FTEs can target 3,500-5,000 key accounts
- Target major hospitals with nephrology departments and independent specialist clinics
- US capability to include commercial and cross-functional support team

Optimal RoW uptake with partnering



Europe, Japan and RoW

- Roll-out according to market potential, pricing and access
- Leverage global synergies in pre-launch and launch
- Ascelia vs. partner roles evaluated to maximise value

PREPARING FOR COMMERCIALISATION

PREPARE THE PRODUCT

2020

- Phase 3 study SPARKLE (ongoing)
- Detail pricing & access strategy
- Define roll-out priorities & projections
- Develop pre-launch & launch plans
- Build blueprint for US operations and RoW partnering
- Expand key opinion leader network

PREPARE THE MARKET

2021

- Complete phase 3 study
- Prepare NDA filing
- Advance dialogue with payers & clinical decision makers
- Build US capability & RoW partnering
- Develop supply & logistics partnering

PREPARE THE LAUNCH

2022

- Reach timely market authorisation
- Secure supply & logistics operations
- Mobilise US operations
- Develop RoW partnership operations
- Execute cross-functional launch
  - Payer adoption
  - Medical advocacy
  - Early adoption and preference

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ADVANCING ORAL CHEMOTHERAPY

ONCORAL

CHEMOTHERAPY TABLET FOR GASTRIC CANCER
READY FOR PHASE 2

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ONCORAL – NOVEL IRINOTECAN TABLET READY FOR PHASE 2

NOVEL ORAL PATENTED FORMULATION

Formulated as a **tablet** for convenient dosing and health-economic benefits

Promising safety potential of oral administration

Potential for **all-tablet chemo-combination**

PHARMACEAUTICAL INGRIEDIENT HAS PROVEN EFFECT

Irinotecan shown to be effective in **killing cancer cells**

Expected to be efficacious and safe **together** with other well-recognized anti-cancer drugs

Orphan drug indication for gastric cancer by the FDA and EMA

With promising Phase 1 results, we are now preparing for Phase 2

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ENCOURAGING ONCORAL PHASE 1 STUDY RESULTS

Phase 1 *single agent study* published in Jan 2019

- Results showed that Oncoral was well tolerated; side effects were generally mild to moderate, manageable and similar in type to those observed with intravenous irinotecan
- Hematological toxicities were few and all were mild to moderate
- Pharmaco-Kinetic (PK) data showed consistent daily exposures during treatment at days 1 and 14 with no drug accumulation
- The active metabolite, SN-38, interpatient variability was in the same range as after infusion of irinotecan
- In this heavily pre-treated patient population, Oncoral indicated activity even among patients previously treated with irinotecan infusion
- The study was presented at ESMO congress in October 2018

Phase 1 *combination study* published in April 2019

- The combination of Oncoral with another oral chemotherapy, capecitabine, was encouraging which could enable an all-oral chemotherapy combination
- The study data demonstrated reassuring tolerability of Oncoral together with capecitabine
- The combination with capecitabine could become a more convenient and patient friendly treatment option compared to the intravenous formulations of these compounds
- The encouraging tolerability profile justifies further clinical studies to assess the efficacy of this treatment regimen

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TARGETING >$4 BILLION MARKET IN GASTRIC CANCER

DISEASE CHARACTERISTICS

- Gastric cancer is the 6th most prevalent cancer in the world[1)]
- Gastric cancer is the 3rd most frequent cause of cancer death[1)]
- The 5-year survival of gastric cancer is approximately 20%[2)]

MARKET OPPORTUNITY

- Market for gastric cancer treatment forecast to increase to >$ 4 billion in 2024[3)]
- Drug treatment typically combination of 2-3 drugs

Key growth drivers

1. Increase in overall incidence of gastric cancer
2. Anticipated increase in treatment rates
3. Extended treatment duration
4. New lines of more expensive therapies
5. Increased number of patients receiving branded therapy

1) IARC (2012)
2) Clinical Colorectal Cancer 2015; 14(4): 239-50
3) GlobalData - Gastric and Gastroesophageal Junction Adenocarcinoma – Global Drug Forecast and Market Analysis to 2024

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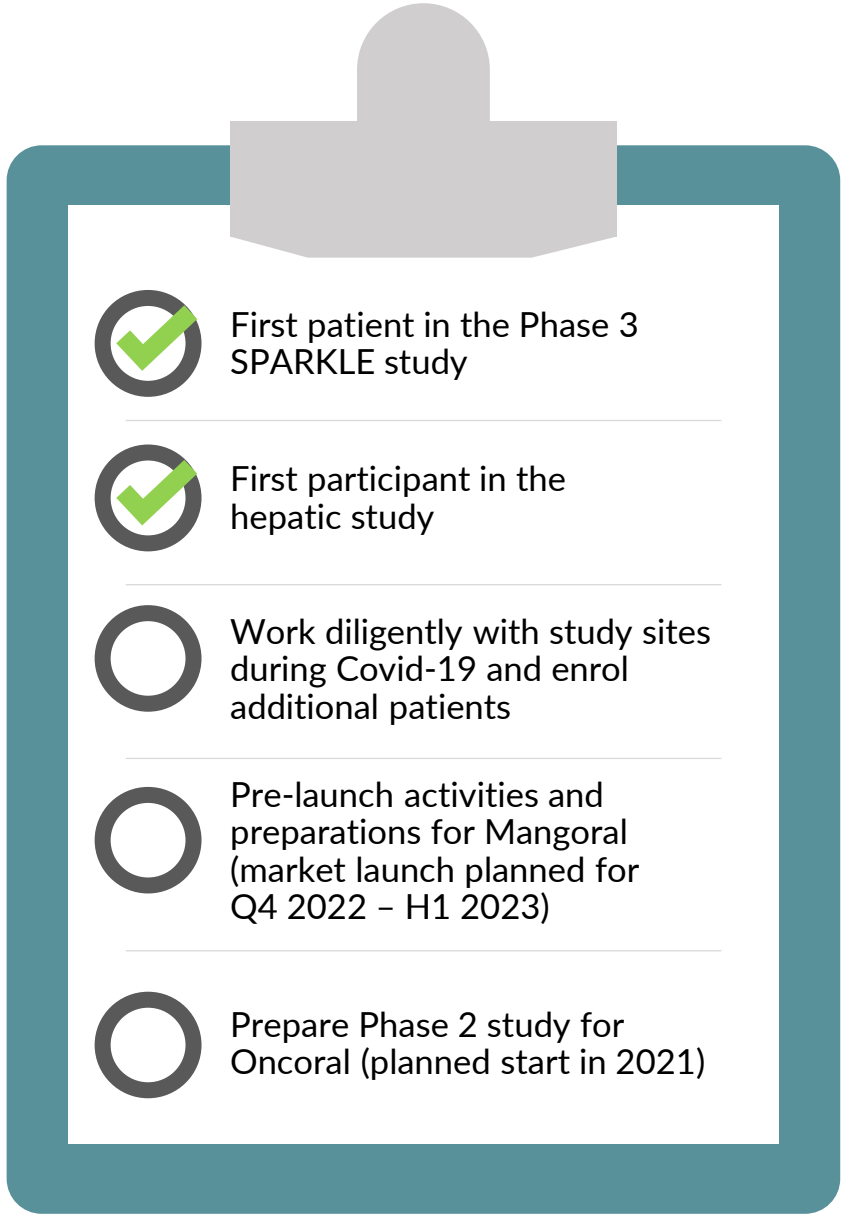
PRIORITIES 2020 AND INVESTMENT HIGHLIGHTS

Priorities in 2020



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INVESTMENT HIGHLIGHTS

Ascelia Pharma (ticker: ACE) – Advancing orphan oncology

- Drugs targeting unmet medical needs with known mode of action and low development risk
- Solid financial position: SEK 169 million in liquid assets per 31 Mar 2020

Mangoral – Phase 3 non-gadolinium liver imaging drug

- $350-500 million annual addressable market
- No competing drugs
- Ongoing Phase 3 program with high likelihood of success – study results expected in H2 2021
- Orphan Drug Designation

Oncoral – Phase 2 ready oral chemotherapy for gastric cancer

- Novel tablet formulation with significant patient and hospital benefits
- Effective molecule for killing cancer
- Promising Phase 1 results and preparing for Phase 2

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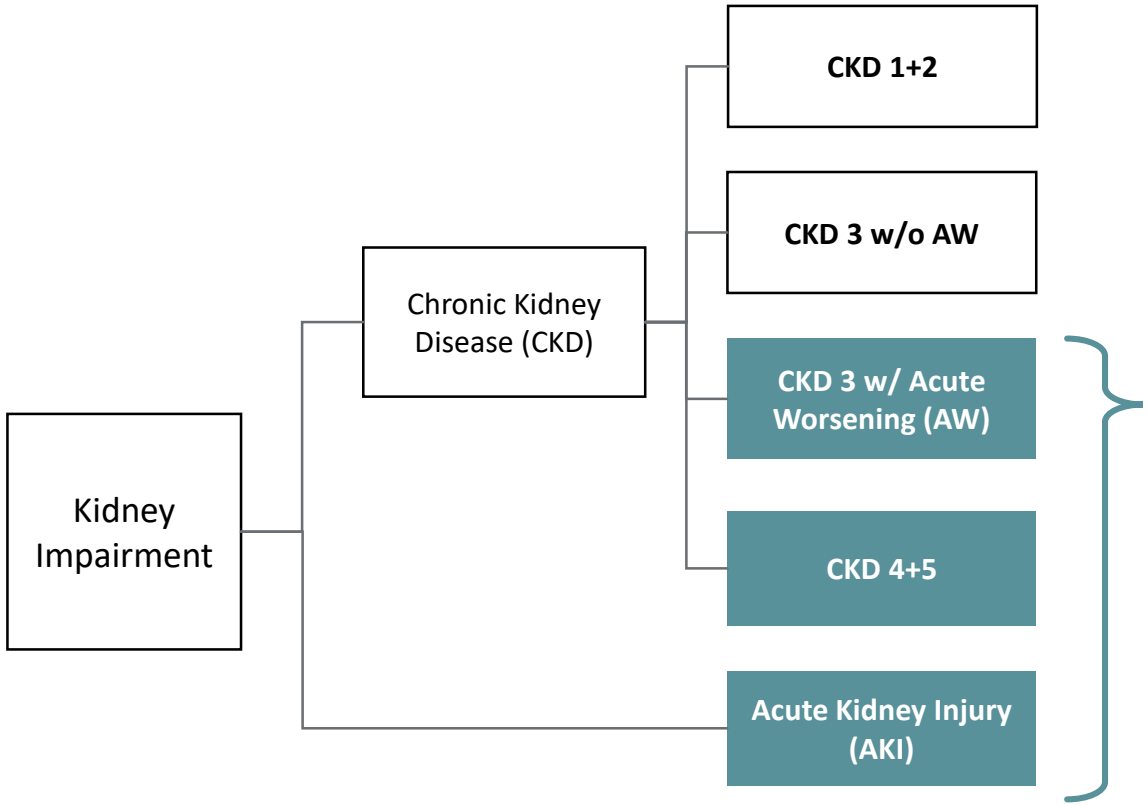
APPENDIX – MARKET MODEL

TARGET SEGMENT

PATIENTS WITH KNOWN OR SUSPECTED **FOCAL LIVER LESIONS** AND SEVERELY **IMPAIRED KIDNEY FUNCTION**



Mangoral Target Segment:

MRI and CT liver scans for high-risk patients with severely impaired kidney function:

- eGFR < 30 mL/min/1.73m^2, or
- Acute Kidney Injury

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MEASURING KIDNEY IMPAIRMENT IN PATIENTS

- According to *American Society of Nephrology*, CKD 4 is defined as eGFR < 30 mL/min/1.73m^2 on two occasions separated by ≥90 days and that is not associated with a transient, reversible condition such as volume depletion

- eGFR is estimated based on serum creatinine measurement, which is considered good for measuring stable patients over time, but is less good in capturing acute changes in kidney function, where the calculated eGFR is higher than the *true GFR*

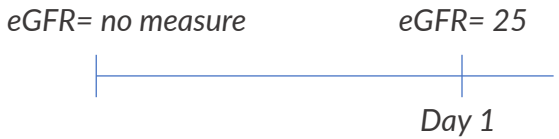
- Kidney function can be temporarily reduced due to factors such as nephrotoxic drugs (including chemo and antibiotics), surgery, hospitalization, trauma and dehydration

DEFINITION OF CHRONIC KIDNEY DISEASE 4/5

All of these patients are candidates for Mangoral, but only one is categorized as a CKD 4/5 patient

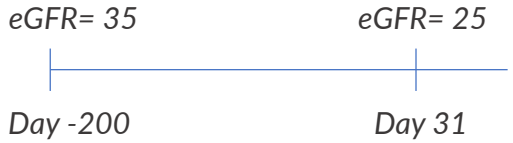
CKD 4 patient

Not CKD patient



Not CKD patient

CKD 3 patient



MANGORAL PATIENT POPULATION

- Mangoral can be used for visualization of all focal liver lesions, but is expected to be predominantly used in patients with known or suspected cancer in the liver. The majority of patients will have liver metastases and a small minority will have primary liver cancer

- Today, kidney function is assessed in clinical practice in patients at risk of kidney impairment by measuring serum creatinine and calculating eGFR

- eGFR is reliable in patients in stable condition and with a history of previous eGFR measurements for assessing development in kidney function. It is less reliable in situations where the patient either
    - Has no previous eGFR measurements, or
    - Is in unstable condition that can have acute effects on kidney function

- The estimate of eligible patients for Mangoral therefore includes both CKD 4/5 patients as well as patients with acute changes in kidney function

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$350-500M ADRESSABLE MARKET WITH NO COMPETITION

Top-down analysis

Est. cancer patients in 2020 ('000)[1]		[2]	
Colorectal cancer	570	1,441	491
Liver cancer	64	133	120
Other relevant cancers (breast, lung and gastric cancer)	1,792	2,875	992
Total	**2,426**	**4,449**	**1,603**

1. Age-distributed prevalence of CKD in the chosen cancer indications
2. Adjust for higher cancer risk in patients with CKD

Addressable CKD patients ('000)[4]			
CKD 4/5	37	46	30
CKD 3 with acute worsening	55	69	45
Total CKD patients for Mangoral®	**92**	**115**	**75**

3. Scans per CKD patient – adjusted for the frequency of scans and rate of newly diagnosed patients in the cancer indications

# Annual Mangoral® scans ('000)	**64**	**95**	**61**

4. $1,500 - $3,000 per dose of Mangoral based on Value-based-pricing

Explanatory comments

1. *The prevalence of CKD (Chronic Kidney Disease) varies across the geographies, as well as the age distribution of the population*
2. *The risk of cancer in CKD varies across cancer indications, and is larger in Colorectal than in e.g. Breast and Liver[3]*
3. *The actual number of expected scans have been adjusted for the different frequency of scanning per cancer indication, as well as the different # of scans given to patients depending on where they are in the treatment cycle*
4. *Expected pricing level has been discussed with >25 payors in the US and Europe*

An addressable market of USD 350-500m

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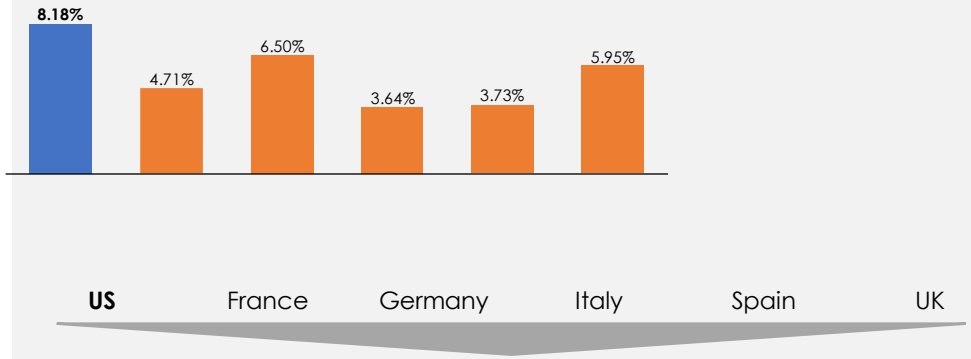
1 THE PREVALENCE OF CKD VARIES ACROSS GEOGRAPHIES AND AGE

US-specific figures for CKD stage-specific prevalence have been used as a basis

prevalence rates	Age<60	Age≥60	Source
CKD 4/5 prevalence	**0.2%**	**1.8%**	**USRDS ADR 2010**
CKD 3 prevalence	4.2%	26.3%	USRDS ADR 2010
Fraction with acute worsening	*10%*		*Company estimate*
CKD 3 with acute worsening	**0.42%**	**2.63%**	**Derived from the above**

Age-standardized prevalence of CKD (%), ≥ 20 years, 2012[1)]



Overall CKD prevalence in the US (%)	8.18%
Japan relative to the US[2)]	1.00
France relative to the US	0.58
Germany relative to the US	0.79
Italy relative to the US	0.45
Spain relative to the US	0.46
UK relative to the US	0.73

- The detailed prevalence figures obtained in the US for the various stages of CKD have been used as a basis for the CKD prevalence calculations
- Japan's CKD stage-specific prevalence has been found to be relatively identical to the US
- For the EU countries, their stage-specific CKD prevalence have been calculated using the US figures adjusted for these countries' overall CKD prevalence vs. the US

Geography	Prevalence rates	Age<60	Age≥60
France	CKD 4/5 prevalence	0.12%	1.04%
	CKD 3 with acute worsening prevalence	0.24%	1.52%
Germany	CKD 4/5 prevalence	0.16%	1.43%
	CKD 3 with acute worsening prevalence	0.33%	2.09%
Italy	CKD 4/5 prevalence	0.09%	0.80%
	CKD 3 with acute worsening prevalence	0.19%	1.17%
Spain	CKD 4/5 prevalence	0.09%	0.82%
	CKD 3 with acute worsening prevalence	0.19%	1.20%
UK	CKD 4/5 prevalence	0.15%	1.31%
	CKD 3 with acute worsening prevalence	0.31%	1.91%

1) Global Data 'Chronic Kidney Disease - Epidemiology Forecast to 2022', August 2013
2) Clin Exp Nephrol. 2009 Dec;13(6):621-30, Prevalence of chronic kidney disease in the Japanese general population, Imai et al.

2 RISK OF COLORECTAL CANCER IS HIGHER IN THE CKD POPULATION

Overview

Risk factor for cancer	Age<50	Age≥50	Source
Colorectal cancer	3.7	1.64	Ann Surg Oncol (2013) 20:3885–3891, Risk of Colorectal Cancer in Chronic Kidney Disease: A Matched Cohort Study Based on Administrative Data, Wu et al.
Liver cancer	1.0	1.0	*No relevant source, i.e. no adjustment to risk factor*
Other relevant cancers (breast, lung and gastric cancer)	1.0	1.0	*No relevant source, i.e. no adjustment to risk factor*

Effect on calculation

The risk of developing colorectal cancer has been found to be 1.64-3.7x larger for patients with CKD than others

To adjust for this, the CKD prevalence figures (%) have been multiplied by this factor when the addressable CKD cases within the colorectal cancer population have been calculated

A detailed example follows on the next slide

Abstract

Background

To investigate the risk of CRC in patients with CKD

Methods

- Study cohort included patients aged ≥18 years diagnosed with CKD between 2004 and 2005 (n = 15,975)
- Comparison cohort (n = 79,875) included five randomly selected age- and gender-matched controls for each patient in the study cohort
- All the subjects were followed up from the date of cohort entry until they developed CRC or until the end of 2006.

Results

- 460 patients developed CRC during the study period, of whom 116 were from the CKD cohort and 344 were from the comparison cohort
- The age-matched hazard ratio of CRC after excluding dialysis patients was **1.64** (95% CI 1.27-2.11) in patients aged ≥50 years, and **3.7** (95% CI 1.83-7.49) in patients younger <50 years

EXAMPLE OF HOW THESE ASSUMPTIONS ARE UTILISED IN THE MODEL

Geography: US / Cancer indication: Colorectal

	Patients / age intervals	0-14	15-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	≥75	Total
	Colorectal cancer patients by 2020 ('000) [1]	**0.1**	**14.8**	**17.9**	**32.0**	**48.3**	**60.9**	**71.2**	**90.2**	**82.6**	**234.0**	**652.1**
A	**CKD 4/5 prevalence**	**0.2%**						**1.8%**				
	CKD 3 prevalence	*4.2%*						*26.3%*				
	Fraction with acute worsening	*10%*										
B	**CKD 3 with acute worsening**	**0.42%**						**2.63%**				
C	**Risk factor**	**3.7**				**1.64**						
	Risk-adjusted CKD 4/5 prevalence (%)	0.74%	0.74%	0.74%	0.74%	0.33%	0.33%	2.95%	2.95%	2.95%	2.95%	
	Risk-adjusted CKD 3 with acute worsening prevalence (%)	1.55%	1.55%	1.55%	1.55%	0.69%	0.69%	4.31%	4.31%	4.31%	4.31%	
	CKD 4/5 patients ('000)	0.001	0.110	0.133	0.237	0.158	0.200	2.102	2.664	2.437	6.908	14.949
	CKD 3 with acute worsening patients ('000)	0.001	0.231	0.278	0.498	0.332	0.420	3.072	3.892	3.561	10.093	22.377
	Total ('000)	**0.002**	**0.341**	**0.411**	**0.735**	**0.491**	**0.620**	**5.174**	**6.556**	**5.998**	**17.001**	**37.326**

Est. total of **37,326** relevant CKD patients in the US colorectal cancer population

1) Based on Globocan 2012.

3 IMAGING FREQUENCY DEPENDS ON DISEASE STATE, TREATMENT, PROGNOSIS AND RISK PROFILE

The treatment cycle

MRI scans are utilized throughout the treatment cycle, which can be categorized into three main stages

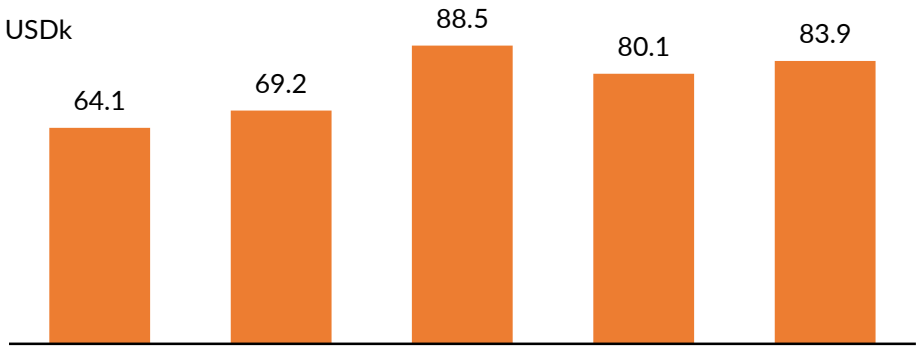
Stage	A Pre-therapy / pre-operative	B During therapy	C Follow-up / post-operative
Purpose	*Diagnosis (location / burden) and planning of treatment*	*Response to systemic therapy*	*Surveillance for tumour recurrence*
Frequency	• Typically one initial scan	• Response to chemotherapy and re-assessment of colorectal metastatic resectability may occur at 6 week intervals[1)]	• For primary liver cancer, post-operative imaging surveillance intervals may range from 3-12 months[1)]

Avg. frequency of scans per patients	Year 1[2)]	Year 2+
Colorectal cancer	2	1
Liver cancer	2	1
Other relevant cancers (breast, lung and gastric cancer)	0.5	0.25

1) AJR Am J Roentgenol, 2014, 203(1):W21-33
2) The newly diagnosed rate for Colorectal, Liver and Other relevant cancers have by Management been assumed to be at 25%, 50% and 25%, respectively. These figures have been derived based on the observed incidence / prevalence across these indications.

4 MANGORAL IS AN ORPHAN HIGH VALUE DIAGNOSTIC DRUG WITH EXPECTED STRONG PRICING POWER

Median cost per patient p.a. for orphan drugs, US, 2012-2016[1)]



> 25 payors

- Ascelia Pharma has held discussions with more than 25 payors on Mangoral's market access

- Feedback from these discussions support the plan for a unique Mangoral reimbursement code and value based pricing

Pricing of other relevant high value diagnostics

Test	Type	Company	Use	Est. price per dose (USDk)
Choline C-11[2)]	In-vivo (injection)	Zevacor Pharma	PET imaging	5.7
				2.2
Afirma Gene Expression Classifier[3)]	In-vitro	Veracyte	Preoperative microarray test	3.4
Oncotype DX Gene expression microarray[4)]	In-vitro	Genomic Healths	Gene expression microarray test	3.7
Axumin (fluciclovine F 18) PET agent[5)]	In-vivo (injection)	Blue Earth Diagnostics	PET imaging	**3.7**

1) Source: EvaluatePharma (Orphan Drug Report 2017)
2) SNMI 2016 (http://snmmi.files.cms-plus.com/docs/hpra/SNMMI%20HOPPS%202016F%20vs%202017P_update.pdf)
3) Veracyte 2016 (http://investor.veracyte.com/releasedetail.cfm?releaseid=975334)
4) Genomic Health 2015 (http://investor.genomichealth.com/releasedetail.cfm?releaseid=935522)
5) Axumin 2017 (http://www.axumin.com/pdf/Pass-thru.pdf)

ASCELIA PHARMA

IN SUMMARY…



1	Est. cancer patients (in relevant indications) in 2020 ('000)		
	2,426	4,449	1,603
2	…of which addressable CKD patients ('000)		
	92	115	75
3	Number of Mangoral scans for these CKD patients ('000)		
	64	95	61
4	$1,500 - $3,000 per dose of Mangoral based on Value-based-pricing		

USD 350-500m market potential and no competing drugs

GADOLINIUM BRAIN ACCUMULATION – UPSIDE POTENTIAL

Gadolinium under scrutiny for brain accumulation

- Recently, concerns have been raised for gadolinium retention in the brain in all patients regardless of kidney function
- Regulatory agencies have issued warnings and suspended gadolinium-based products
- Concerns about brain accumulation have also sparked media interest (incl. WSJ and Washington Post)

A Question for Anyone Getting an MRI

Patients need to know if the doctor plans to use contrast, or gadolinium, because it may leave harmful metal deposits; a new FDA warning

Millions of magnetic resonance imaging, or MRI, scans are performed annually in the U.S. to look for tumors among other ailments. PHOTO: GETTY IMAGES

THE WALL STREET JOURNAL. WSJ

By *Sumathi Reddy*

Sept. 18, 2017 12:21 p.m. ET

For Ascelia, further limitations to gadolinium products could offer significant upside to the addressable market

Selected recent regulatory actions

19 December 2017:

FDA Drug Safety Communication: FDA warns that gadolinium-based contrast agents (GBCAs) are retained in the body; requires new class warnings

23 November 2017:

EMA's final opinion confirms suspension and restrictions on use of linear gadolinium agents in body scans

6 February 2018:

UK implements EMA decision and Omniscan and intravenous Magnevist are now no longer authorised for use and a product recall of any existing unexpired stock is underway

8 December 2017:

Japan's Ministry of Health, Labour and Welfare asks makers of gadolinium-based contrast agents (GBCAs) for MRI scans to revise warning text

1 April 2018:

Sweden implements the EMA recommendations. Since gadolinium may ingrain itself in the human brain with unknown long term side effects

DE-RISKED PHASE 3 STUDY COMPARED TO TYPICAL PHASE 3

Parameter	**TYPICAL ONCOLOGY** pivotal Phase 3 trial	**MANGORAL** pivotal Phase 3 trial
Patient sample size	• 500-1,000+	✓ Up to 200 patients
Study design	• Patients randomised into separate study arms thus increasing variation	✓ Each patient his/her own control thus minimising variation
API	• Often a novel molecule	✓ Manganese
Study comparator	• Add-on to standard-of-care or evaluated head-to-head vs. another active treatment regimen	✓ Add-on to standard-of-care (unenhanced MRI vs. unenhanced MRI + Mangoral enhanced MRI)
Follow-up time to endpoint	• Months to years	✓ Days

ASCELIA PHARMA

APPENDIX – Q1 2020 HIGHLIGHTS

SIGNIFICANT MILESTONES REACHED IN 2020

Key events in Q1-2020

- First patient in Mangoral's Phase 3 study SPARKLE
- Ascelia Pharma wins the award as Malmö's Best Life Science company

Key events after the period

- First participant in the hepatic study for Mangoral (May 2020)
- Patent approval for Oncoral in Japan (Apr 2020)

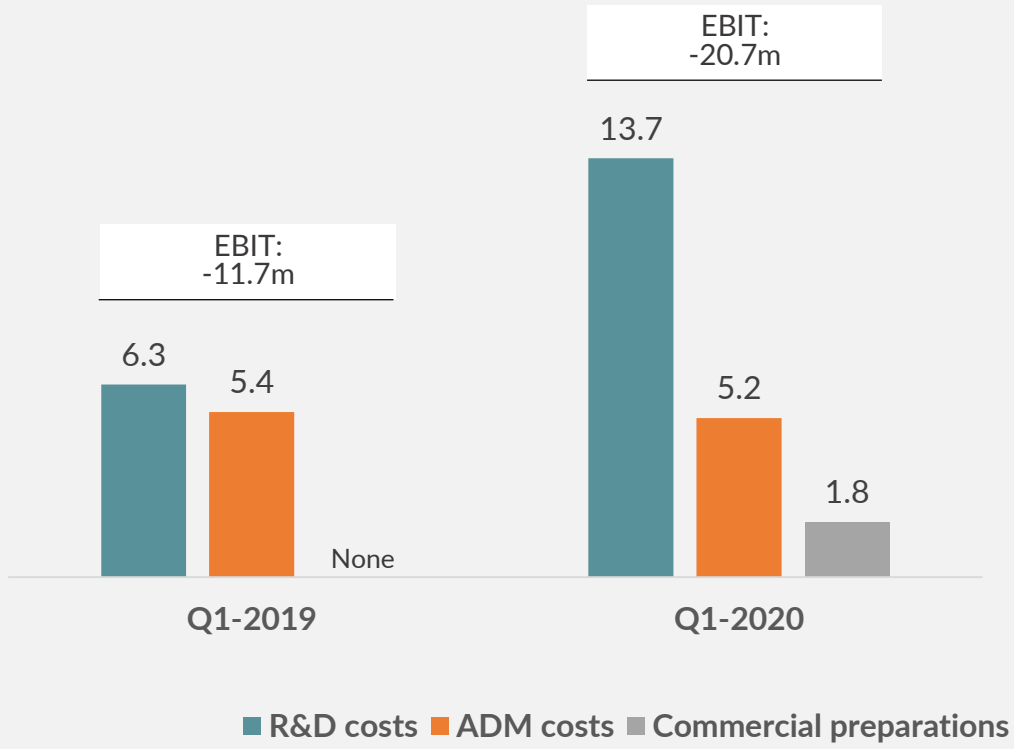
FINANCIAL HIGHLIGHTS – OPERATING RESULTS

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

- Preparing and opening of clinical study sites
- Manufacturing preparations
- Regulatory preparations

Also cost for commercial preparations for Mangoral incurred in Q1-2020 (none in Q1-2019)

Main operating costs and EBIT (SEKm)



FINANCIAL HIGHLIGHTS – LIQUIDITY POSITION

Continued strong liquidity:

- Liquid assets incl. marketable securities of SEK 169.3 million per 31 Mar 2020
- Liquidity to fund Mangoral clinical development and pre-commercial activities