## MEDIVIR REDEYE FIGHT CANCER SEMINAR JANUARY 21, 2021



#### **Important notice**

You must read the following before continuing. The following applies to this document and the information provided in this presentation by Medivir AB (publ) (the "Company") or any person on behalf of the Company and any other material distributed or statements made in connection with such presentation (the "Information"), and you are therefore advised to carefully read the statements below before reading, accessing or making any other use of the Information. In accessing the Information, you agree to be bound by the following terms and conditions.

The Information does not constitute or form part of, and should not be construed as, an offer of invitation to subscribe for, underwrite or otherwise acquire, any securities of the Company or a successor entity or any existing or future subsidiary or affiliate of the Company, nor should it or any part of it form the basis of, or be relied on in connection with, any contract to purchase or subscribe for any securities of the Company or any of such subsidiaries or affiliates nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. Specifically, this presentation does not constitute a "prospectus" within the meaning of the U.S. Securities Act of 1933, as amended.

The Information may not be reproduced, redistributed, published or passed on to any other person, directly or in directly, in whole or in part, for any purpose. The Information is not directed to, or intended for distribution to or use by, any person or entity that is a citizen or resident of, or located in, any locality, state, country or other jurisdiction where such distribution or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction. The Information is not for publication, release or distribution in the United States, Australia, Canada or Japan, or any other jurisdiction in which the distribution or release would be unlawful.

All of the Information herein has been prepared by the Company solely for use in this presentation. The Information contained in this presentation has not been independently verified. No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the Information or the opinions contained herein. The Information contained in this presentation should be considered in the context of the circumstances prevailing at that time and will not be updated to reflect material developments which may occur after the date of the presentation. The Company may alter, modify or otherwise change in any manner the content of this presentation, without obligation to notify any person of such revision or changes.

This presentation may contain certain forward-looking statements and forecasts which relate to events and depend on circumstances that will occur in the future and which, by their nature, will have an impact on the Company's operations, financial position and earnings. The terms "anticipates", "assumes", "believes", "can", "could", "estimates", "expects", "forecasts", "intends", "may", "might", "plans", "should", "projects", "will", "would" or, in each case, their negative, or other variations or comparable terminology are used to identify forward-looking statements. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in a forward-looking statement or affect the extent to which a particular projection is realized. Factors that could cause these differences include, but are not limited to, implementation of the Company's stategy and its ability to further grow, risks associated with the development and/or approval of the Company's products, technology changes and new products in the Company's products, technology changes and new products in the Company's potential market and industry, the ability to develop new products, the impact of competition, changes in general economy and industry conditions and legislative, regulatory and political factors. While the Company always intends to express its best judgment when making statements about what it believes will occur in the future, and although the Company bases these statements on assumptions that it believe to be reasonable when made, these forward-looking statements are not a guarantee of its performance, and you should not place undue reliance on such statements. Forward-looking statements are outside of the Company's control and could cause its actual results to differ materially from those it thought would occur. The forward-looking statements included in this presentation are made only as of the date hereof. The Company does not undertake, and specifically decline, any obligation



## Table of content

#### Table of content

- 1. Executive summary
- 2. Birinapant deal
- 3. Rights issue
- 4. MIV-818
- 5. Other assets
- 6. Summary

#### **Executive summary**

#### Proprietary clinical asset

- MIV-818 A liver directed nucleotide prodrug
- In phase Ib clinical development
- Opportunities for breakthrough oncology indications

#### Recent news

- Medivir and IGM Biosciences have entered into an exclusive licensing agreement for birinapant
- Resolved to carry out a preferential rights issue of c. SEK 170 million

#### Multiple clinical programs for partnering/out-licensing

• Remetinostat and MIV-711

1) Q3 report 2) 2021-01-20 Avanza (c. USD 57M) Founded: 1988 Listed: Nasdaq OMX Location: Stockholm Cash position: c. SEK 83M<sup>1)</sup> Market Cap: SEK 470M<sup>2)</sup> FTE: 9

#### Focused clinical program

Nucleotide prodrug	Indication	Research	Preclinical	Phase I	Exclusivity
MIV-818	Liver cancer				IP:2035

#### Partnered assets in clinical development

Compound	Mechanism	Indication	Phase I	Phase II	Partner	Exclusivity
Birinapant	SMAC mimetic	HNSCC <sup>2)</sup>				IP : 2034

#### Multiple clinical programs for partnering/out-licensing

Compound	Mechanism	Indication	Phase I	Phase II	Phase III	Exclusivity
Remetinostat	Topical HDAC	MF-CTCL <sup>1)</sup> BCC				IP : 2034
MIV-711	Cathepsin K inhibitor	0A <sup>3)</sup>				IP : 2034

1) Indications: basal cell carcinoma, squamous cell carcinoma, mycosis fungoides cutaneous T-cell lymphoma (phase III ready)

2) Head and neck squamous cell carcinoma

3) Osteoarthritis



# Medivir enters into exclusive licensing agreement with IGM biosciences for birinapant

MEDIVIR

#### Licensing agreement with IGM Biosciences

- Medivir and IGM Biosciences (IGM) have entered into an exclusive licensing agreement for birinapant
- IGM is a clinical-stage biotechnology company focused on creating and developing engineered IgM antibodies
- IGM will receive global development rights for birinapant, a clinical-stage SMAC mimetic that binds to and degrades Inhibitors of Apoptosis Proteins (IAPs), leading to cell death in tumor cells
- Birinapant is initially intended to be combined with IGM-8444, an IgM antibody targeting Death Receptor 5 (DR5) being developed by IGM, and birinapant has been shown to enhance anti-tumor activity preclinically



#### Licensing agreement with IGM Biosciences

- Medivir will receive an upfront payment of USD 1 million upon signing the agreement, followed by an additional USD 1.5 million when birinapant is included by IGM in a clinical phase I study
- Should birinapant be successfully developed and approved, Medivir is entitled to receive development, regulatory and sales milestone payments up to a total of approximately USD 350 million plus tiered royalties from the mid-single digits up to mid-teens on net sales

## **Preferential rights issue**

#### **Rights issue of SEK 170M**

Terms	For each existing class B share in Medivir you will receive one (1) subscription right. One (1) subscription right entitles to subscription of one (1) class B share in Medivir.
Subscription price	SEK 7.00 per share.
Record date	18 January 2021.
Subscription period	20 January – 3 February 2021.
Trading in subscription rights	20 January – 1 February 2021.

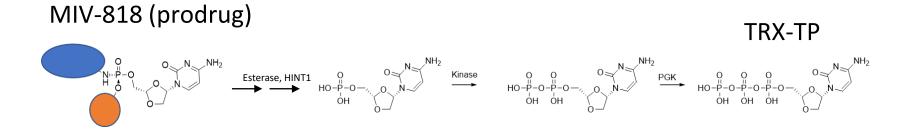
- If the Rights Issue is fully subscribed, the Company's share count will increase from 24,287,818 shares to 48,564,223 shares
- Announcement of preliminary subscription result in the Rights Issue on Feb 5, 2021

## MIV-818 Mode of action and preclinical data



#### MIV-818: A liver-directed nucleotide

- MIV-818 is an oral prodrug
- Once absorbed from the GI-tract, MIV-818 is transported to the liver
- The prodrug is taken up by liver cancer cells and converted into troxacitabine triphosphate (TRX-TP)
- TRX-TP is incorporated into DNA and causes double-strand DNA breaks and cell death





#### Troxacitabine - Background

- Developed by Shire Biochem Inc. and SGX pharmaceuticals
- Nucleoside analogue with anticancer activity
- Administration route, intravenous injection
- More than 700 patients have received the drug in phase I/II/III trials
- In a 48 patient phase I/II trial in AML, 5 patients achieved complete response
  - FDA: Fast Track Designation based on the phase I/II data
- Phase II/III in 3rd line AML was initiated in 2005
  - 2006: DSMB recommends to discontinue the trial due to lack of response
  - *i.v.* administration creates a narrow therapeutic window  $\rightarrow$  suboptimal exposure
- Lilly acquires SGX pharmacetuicals, 2008

#### Preclinical evidence for MIV-818 liver targeting

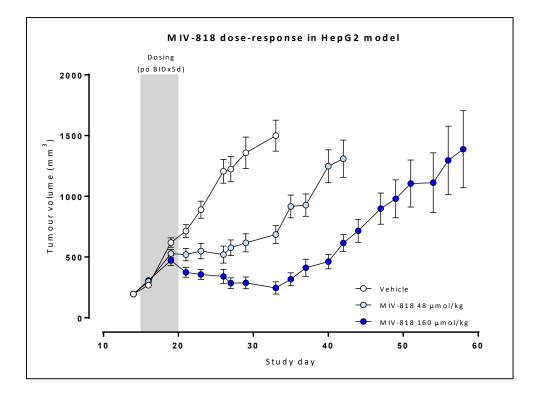
Compound	Route	Dose (µmol/kg)	Liver TRX-TP/Plasma TRX (AUC ratio)
Troxacitabine (TRX)	iv	80	<0.016
MIV-818	oral	80	1.9

- MIV-818 exhibited substantial liver targeting by preferential formation of the active TRX-TP metabolite in liver of rats
- MIV-818 shows a 100-fold higher liver targeting than troxacitabine

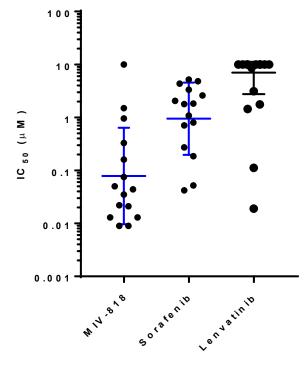


#### MIV-818 shows efficacy in preclinical HCC models

Inhibition of tumor growth in mouse HCC xenograft models in vivo



#### Inhibition of patient-derived HCC cell lines in vitro





#### Summary

- Preclinical evidence of increased liver targeting with MIV-818 vs *i.v.* troxacitabine
- MIV-818 has demonstrated efficacy in multiple preclinical HCC models
  - Significantly better tumor inhibition vs. MKIs in HepG2 xenograft mouse model
  - Predictive dose response
  - Evidence of activity in hypoxic regions of tumor, commonly hard to treat
- The unique mechanism-of-action allows for:
  - Potential to combine effectively with current and future therapies

### MIV-818 Clinical development



#### **MIV-818: Phase Ia objectives**

#### Primary objectives

• To assess safety and tolerability of escalating doses of MIV-818 in patients with hepatocellular carcinoma (HCC), Intra hepatic cholangiocarcinoma (iCCA), or metastatic liver disease and to establish the phase Ib start dose

#### Key secondary and exploratory objectives

• To evaluate the overall response rate (ORR) based on RECIST v1.1 in patients treated with escalating doses of MIV-818, plasma PK and PD

#### Patient characteristics:

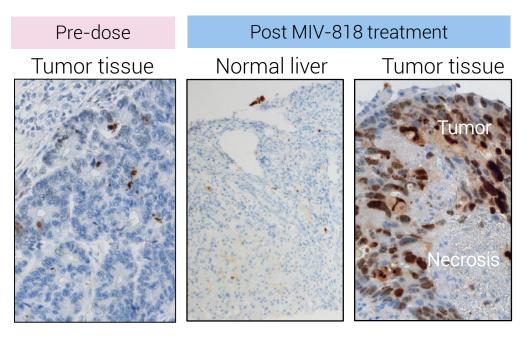
• Nine patients were enrolled and evaluated: 2 HCC, 1 iCCA and 6 Liver metastatic disease

#### <u>Sites:</u>

Three sites, 2 in United Kingdom and 1 in Belgium

#### MIV-818: Selective effect signal in liver cancer in phase Ia

- Clear signs of cell death, measured as DNA damage, observed in liver biopsies from tumor tissue in MIV-818 treated patients
- The tumor selective effect is an early proof-of-concept of the intended liver-directed effect in patients



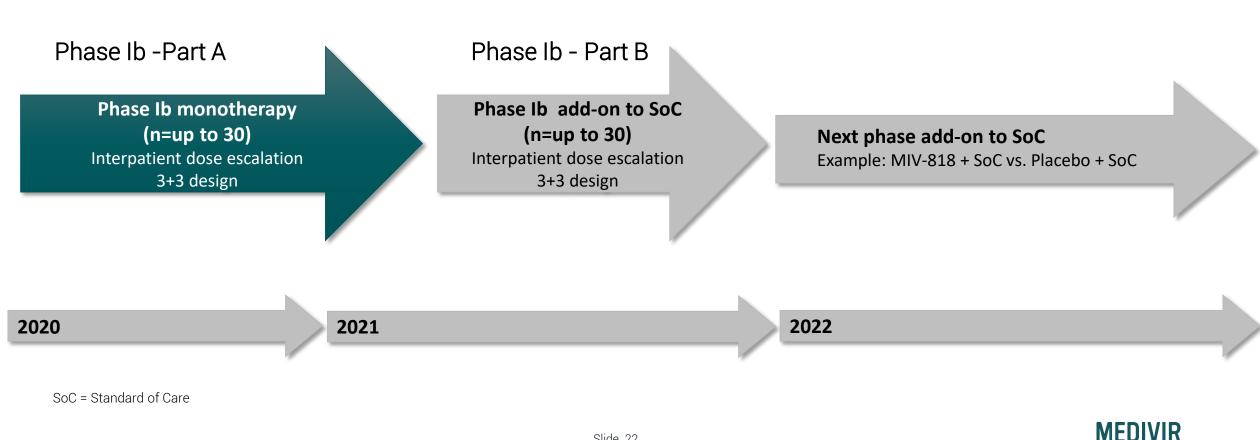
Evidence of DNA damage (brown coloring) in tumor but not in normal liver tissue



#### MIV-818: Conclusions from phase Ia

- Adverse events were generally mild and the few severe adverse events were reversible
- Only low levels of MIV-818 and acceptable exposure to troxacitabine were observed in blood after two treatment cycles
- Liver biopsies showed selective DNA damage in tumor tissue and minimal or no impact of MIV-818 in healthy liver tissue
- Five out of nine patients achieved stable disease after MIV-818 treatment in this heavily pre-treated population

#### MIV-818: Clinical development plan in advanced liver cancer



## Other assets

#### Two clinical programs for partnering/out-licensing

Compound	Mechanism	Indication	Phase I	Phase II	Phase III	Exclusivity
Remetinostat	Topical HDAC	MF-CTCL <sup>1)</sup> BCC				IP : 2034
MIV-711	Cathepsin K inhibitor	OA <sup>2)</sup>				IP : 2034

Indications: basal cell carcinoma, squamous cell carcinoma, mycosis fungoides cutaneous T-cell lymphoma (phase III ready)
 Osteoarthritis

#### **Executive summary**

#### Proprietary clinical asset

- MIV-818 A liver directed nucleotide prodrug
- In phase Ib clinical development
- Opportunities for breakthrough oncology indications

#### Recent news

- Medivir and IGM Biosciences have entered into an exclusive licensing agreement for birinapant
- Resolved to carry out a preferential rights issue of c. SEK 170 million

#### Multiple clinical programs for partnering/out-licensing

• Remetinostat and MIV-711

Q3 report
 2021-01-20 Avanza (c. USD 57M)

Founded: 1988 Listed: Nasdaq OMX Location: Stockholm Cash position: c. SEK 83M<sup>1)</sup> Market Cap: SEK 470M<sup>2)</sup> FTE: 9

#### **Board of Directors**



Chairperson of the Board. Member of the Board since 2015. **Education**: B.Sc. in Economics and Business Administration from the Stockholm School of Economics. **Other directorships**: Founder and now Chairman of the Board of Nordic Investor Services AB. Member of the Boards of Concordia Maritime AB.

Lannebo Fonder, Recipharm AB, Rejlers and Stendörren Fastigheter. Chairman of the Board of Ativo Finans. Shares in Medivir: 53,750 class B shares (including related party).

Helena Levander



Member of the Board since 2018. Education: Pharmacist and PhD. Other directorships: Member of the Boards of Active Biotech, InDex Pharmaceuticals and Beactica AB. Shares in Medivir: 49,000 class B shares.

Uli Hacksell



Member of the Board since 2017.

**Education**: M. Sc. Pharmacy. Has worked in the pharmaceutical industry since 1978.

**Other directorships**: Member of the Boards of Linc AB, Livland Skog AB, Knil AB, Calliditas Therapeutics AB, Animal Probiotics AB, Rejson AB, Sedana Medical AB, Stille AB and Swevet AB, and a number of smaller companies.

Bengt Julander

Shares in Medivir: 1,008,283 class B shares (through endowment policy).



Bengt Westermark



Lennart Hansson



Member of the Board since 2017. **Education**: Professor of Tumor Biology at Uppsala University, Faculty of Medicine, since 1986. **Other directorships**: Member of the Board of Hamlet Pharma AB and several advisory groups for medical research funding. **Shares in Medivir**: 8,000 class B shares.

Member of the Board since 2018. Education: Ph.D. in Genetics from Umeå University. Other directorships: Member of the Boards of InDex Pharmaceuticals AB and Calliditas Therapeutics AB. Chairman of the Boards of Cinclus Pharma Holding AB, Ignitus AB and Sixera Pharma AB. Shares in Medivir: 10,000 class B shares.

Member of the Board since 2019.

**Education**: Physician from Erasmus University, Rotterdam, the Netherlands.

**Other directorships:** She is a Member of the Boards of BioInvent International AB, Savara Pharmaceuticals Inc, PLUS Therapeutics and Agendia BV.

Shares in Medivir: 0.

An van Es-Johansson



#### Key management members

Pharmaceuticals. Mahshid Advisors and Venaticus Capital.



President and CEO Education: Ph.D. Medical Sciences. Karolinska Institutet. Employed: 2020 Background: Former CFO at PledPharma and among others responsible for the listing of the company at Nasdag Stockholm Main Market. Prior to that Investment Manager & Controller at Industrifonden and healthcare analyst at Pareto Securities and Öhman Fondkommission. Started his career as a researcher at Karolinska Institutet and later at the pharmaceutical companies Biolipox and Orexo. Board assignments in Index

Shares in Medivir: 0. Yilmaz Mahshid

Warrants in Medivir: 300,000.



#### EVP, Chief Operating Officer

Education: Ph.D. in Physical Chemistry from Royal Institute of Technology and Executive MBA from Stockholm University.

Employed: 2017

Background: Former CEO of Modus Therapeutics. Prior to that, Director, Corporate Development at Sobi. Responsible for building and leading the Project & Portfolio Management function at Biovitrum. Also Member of the Boards of PCI Biotech and Idogen.

Shares in Medivir: 5.000 class B shares. Warrants in Medivir: 54.630.



#### Chief Financial Officer

Education: B.Sc. in Economics and Business Administration. Employed: 2019

**Background**: Twenty years of experience in business and finance. Previously CFO at O'Learys Trademark AB. Prior to that, Interim CFO at Rebtel and Head of Business Control at ICA Sverige AB. Prior senior positions at Scan AB and SkiStar AB. Experience of finance in listed, private equity and private companies

Shares in Medivir: 4.500 class B shares.

Magnus Christensen Warrants in Medivir: 75,000.



#### Chief Scientific Officer

Education: PhD in Medical Science at Uppsala University. Employed: 2011

**Background**: More than 25 years of experience in cancer research. Over the past 10 years, focused on industrial drug discovery in oncology. Prior to that he managed an academic research group at Uppsala University as principal investigator, and has initiated several innovative scientific projects in cancer biology. He has published more than 50 scientific articles and holds several patents. Associate professor of Experimental Pathology at Uppsala University. Shares in Medivir: 34,586 class B shares. Warrants in Medivir: 61.510.

Fredrik Öbera



#### Interim Chief Medical Officer

Education: BSc in Physiology from the University of Wales, medical degrees from the University of Wales College of Medicine and Master of Laws degree from Cardiff Law School.

#### Employed: 2020

Background: Tom Morris has more than 20 years of experience within drug development, mostly in oncology. He has overseen the clinical development of several global drug programs, interacting with regulatory agencies, external clinical experts and academic groups worldwide.

Shares in Medivir: 0. Warrants in Medivir: 0.



Slide 27

Tom Morris

#### Shareholder list

De största aktieägarna 2020-12-30	Innehav	Röster i %
FÖRSÄKRINGSAKTIEBOLAGET, AVANZA PENSION	2 171 184	8,94%
Nordea Investment Funds	1 999 459	8,23%
LINC AB	1 008 283	4,15%
CREDIT SUISSE (LUXEMBOURG) S.A	623 675	2,57%
ÅLANDSBANKEN I ÄGARES STÄLLE	584 062	2,40%
NORDNET PENSIONSFÖRSÄKRING AB	466 372	1,92%
SIX SIS AG, W8IMY	382 977	1,58%
AM KARLSSON I KVICKSUND	360 492	1,48%
NYDAHL, JAN STEFAN	349 977	1,44%
ÖBERG, BO FREDRIK	347 744	1,43%