

MEDIVIR

Capital Markets Day

February 23, 2017



Today's agenda

Strategy and Overview

Niklas Prager
CEO

Christine Lind
*EVP Strategic
Business
Development
(and CEO designate)*

Scientific Platforms

Richard Bethell
*Chief Scientific
Officer*

Proprietary Projects

Remetinostat

John Öhd
*Head of Clinical
Development*

Birinapant

Richard Bethell

MIV-818

Mark Albertella,
Head of Biology

MIV-711

John Öhd

Partnership Pipeline

Christine Lind

2017 Outlook

Ola Burmark
CFO

Christine Lind

Meet the scientists

Breakout sessions available afterwards

2016 Accomplishments

- ✓ Completed Tetralogic oncology projects acquisition
- ✓ MIV-711 Phase IIa study fully enrolled on schedule and extension study started
- ✓ MIV-818 (HCC nuc) entered preclinical development
- ✓ MIV-323 (RSV) CD nomination
- ✓ Partnered MIV-802 (HCV) with Trek Therapeutics
- ✓ Completed sale of BioPhausia (branded generics portfolio)
- ✓ Reorganized to reduce cost structure



Improve life for cancer patients through transformative drugs

- R&D dedicated company focused on oncology
- Deep clinical pipeline with multiple value drivers
- Technology platforms consistently delivering well-differentiated new projects
- Operating in collaborations
- Proven track record in generating revenue through partnerships
- Multiple milestones providing near-term value inflection opportunities
- Strong and experienced management team

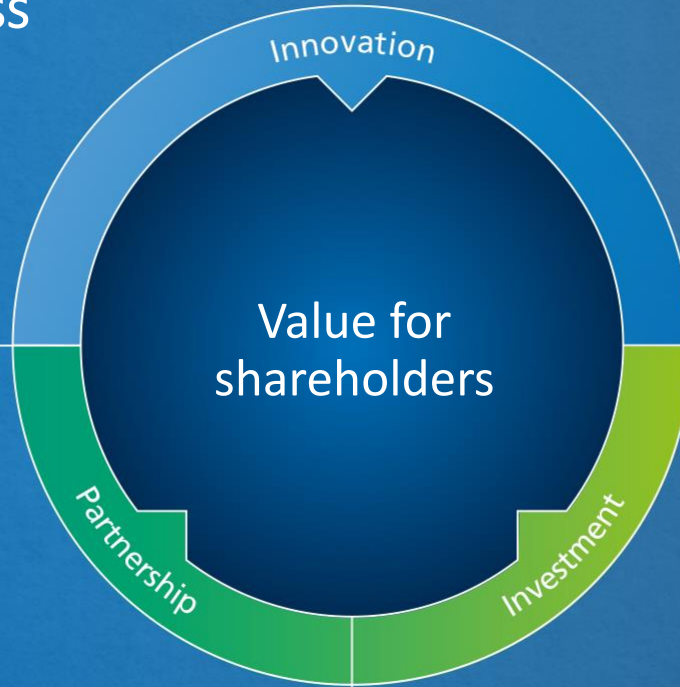
Basic facts

- Headquarters in Stockholm, Sweden
- Listed on the Nasdaq Stockholm, ticker: MVIR



R&D operating model with demonstrated success

Strong development pipeline based in scientific platform competence



Scientific Platforms

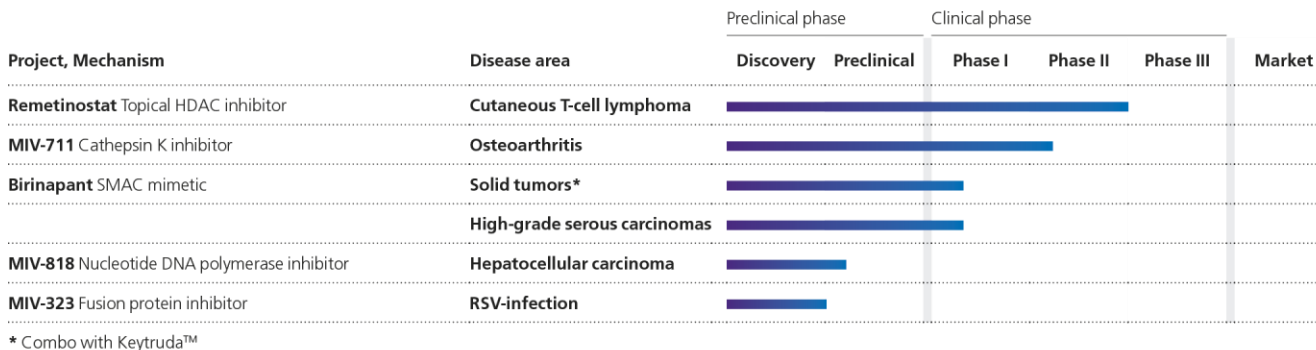
Partnership Pipeline

Proprietary Pipeline

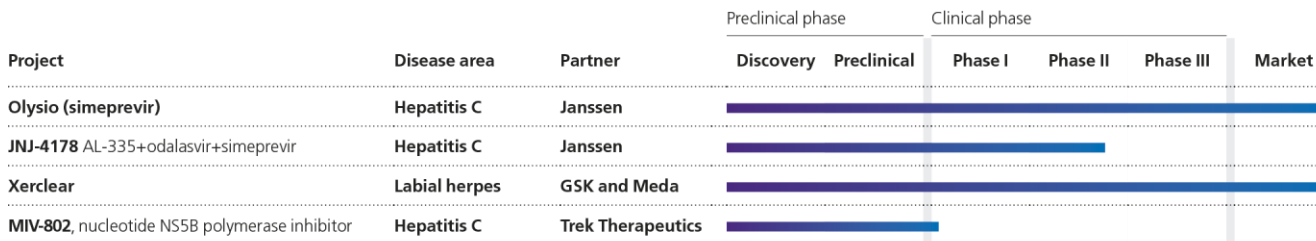
Deep pipeline with multiple value drivers

Well-balanced and broad proprietary pipeline

Proprietary Pipeline



Partnership Pipeline



Partnerships where they meaningfully enhance project value



Scientific platforms

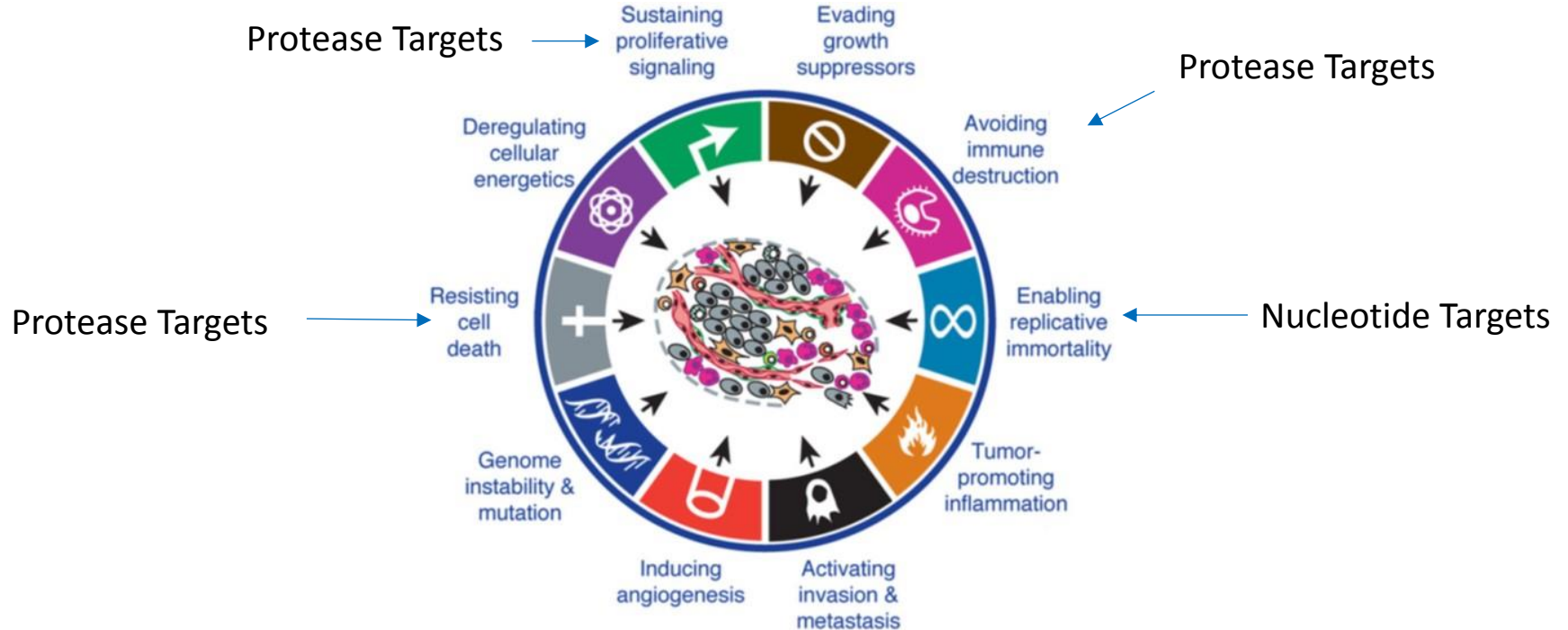
Two focused platforms to deliver well-differentiated new projects cost-effectively

Protease inhibitors

Nucleot(s)ides

Medivir approaches to cancer treatment

The Hallmarks of Cancer¹⁾



¹⁾ Hanahan and Weinberg, Cell (2011), 144, 646-674

Proteases are an emerging target class for cancer treatment

What is a protease inhibitor?

Proteases are a group of enzymes, many of which have key roles in cancer development and progression, e.g.

- Pathways that prevent apoptosis (cell death)
- Pathways that limit the immune response to the tumor

Protease inhibitors block the activity of proteases

How does Medivir choose protease targets?

Good fit with our technology platform

- Combining structural biology, medicinal chemistry and biochemistry to generate potent and selective inhibitors with drug-like properties

Strong association with one or more cancer indications

Clear opportunity to improve patient outcomes through a targeted approach

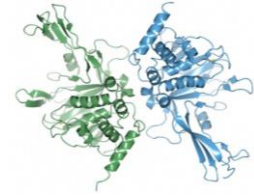
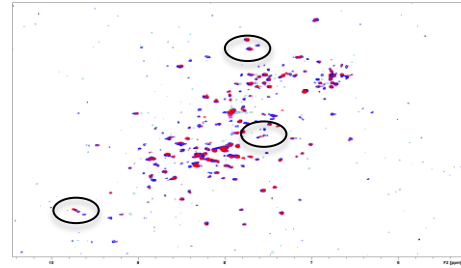


Exploit Medivir's protease inhibitor expertise across multiple cancer indications

Protease inhibitor portfolio: Deubiquitinases

Protease research area: Deubiquitinases

- Ubiquitin: regulatory protein that can be found in most tissues
- Ubiquitylation: binding of the ubiquitin(s) to other proteins
- **Deubiquitinases (DUBs):** proteases involved in the regulation of protein ubiquitylation
- Potential to control regulation of cancer cells
- Application to blood and lymphoid cancers, and glioblastoma



Medivir is competitive in DUBs

- Significant investments have been made in DUBs to date (both Big Pharma and Venture Capital)
- Medivir's DUBs programs are as advanced as the leaders

>\$1_{bn}

invested in DUBs companies to date ¹⁾

mission
therapeutics

ENSEMBLE
THERAPEUTICS

vivolux

CLEAVE
BIOSCIENCES

nurix

ALMAC

pti PROTEOSTASIS
THERAPEUTICS, INC.

Progenra

FORMA
THERAPEUTICS

HYBRIGENICS

evotec

¹⁾ Medivir research from public disclosures

Nucleotide analogues are an established class of anti-cancer drugs

What are nucleotide analogues?

Nucleotides are the building blocks of genetic material (DNA and RNA)

- Rapid replication of the cancer cell's DNA is essential to its growth

Nucleotide analogues are designed to mimic natural nucleotides and damage the cancer cell's DNA

How does Medivir choose nucleotide projects?

Good fit with our technology platform

- Extensive expertise in the design, synthesis and biological characterization of novel nucleosides and nucleotides
- Highly cost efficient CD's based on well-developed, industry-leading platform with relatively short timelines from discovery to development
- Medivir has developed technologies to selectively deliver nucleotides to tumor sites

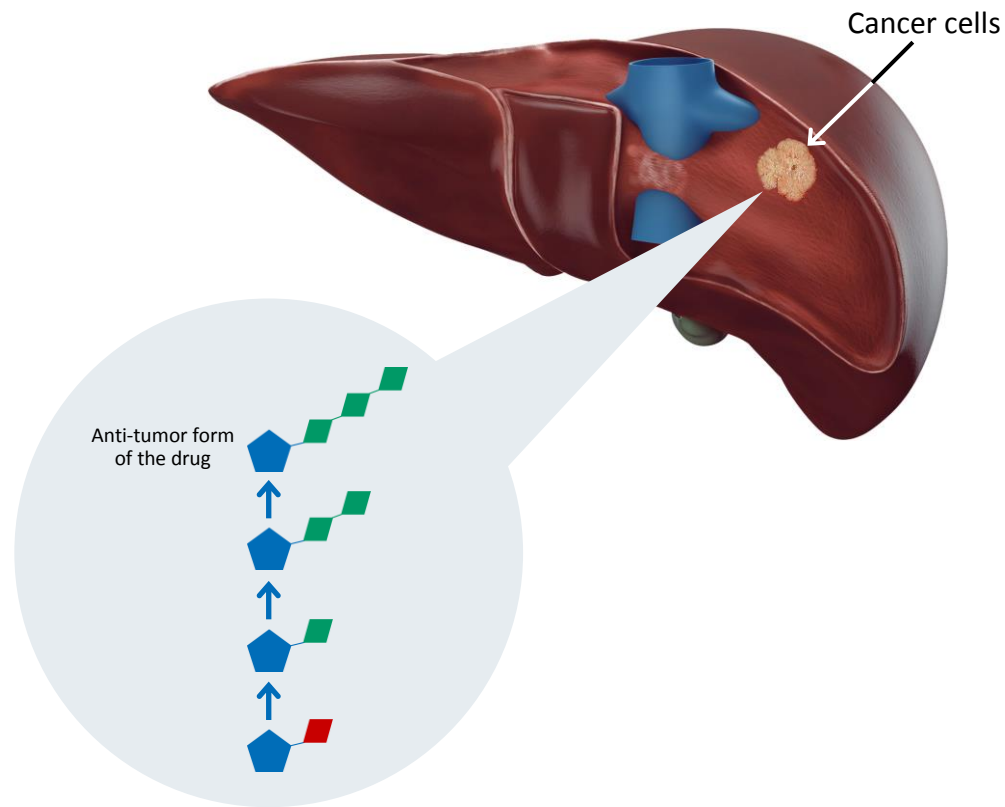
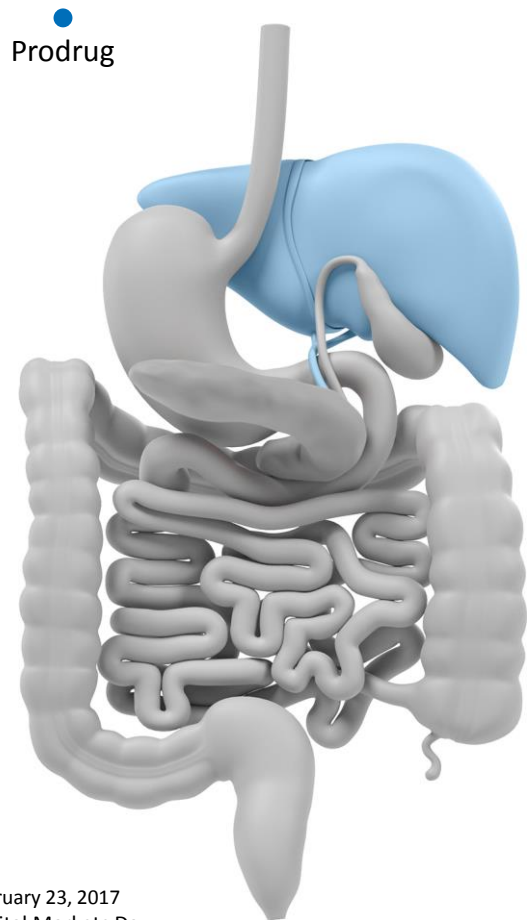
Strong association with one or more cancer indications

Clear opportunity to improve patient outcomes through a targeted approach



Exploit Medivir's expertise in nucleotide science and targeted delivery in high value indications

Nucleotide technology example: Liver-targeted prodrug



Productive research organization: 3 CDs in 2 years

MIV-802

- Discovered at Medivir
- Idea to CD in 18 months
- Outlicensed to TrekTx for development in HCV for upfront, milestones and royalties

MIV-818

- Discovered at Medivir
- Idea to CD in 2.5 years
- Moved into development for liver cancer in-house

MIV-323

- Chemical starting points in-licensed from BI
- New IP generated in-house leading to CD nomination
- Available for out-licensing

Medivir's R&D is highly respected in the scientific community

2016

April 2016: **MALT1**

AACR American Association
for Cancer Research

New Orleans, LA USA

June 2016: **remetinostat**

ASCO American Society of Clinical Oncology

Chicago, IL USA

September 2016: **MIV-818**



Vancouver, Canada

October 2016: **MIV-323**



Patagonia, Argentina

2017

February 2017: **MIV-818**



The Asian Pacific
Association for the Study
of the Liver (APASL)

Shanghai, China

February 2017: **MIV-818**



Geneva, Switzerland

September 2016: **DUBs**



Boston, MA USA

April

May

June

July

Aug.

Sep.

Oct.

Nov.

Dec.

Jan.

Feb.

Mar.

April 2016: **MIV-711**

Osteoarthritis Research
Society International
(OARSI) world congress

*Amsterdam,
Netherlands*

June 2016: **MIV-802**



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February 23, 2017
Capital Markets Day

MEDIVIR

Research collaborations: academic roots

Active in the academic community with collaborations harnessing specialized knowledge



**Karolinska
Institutet**

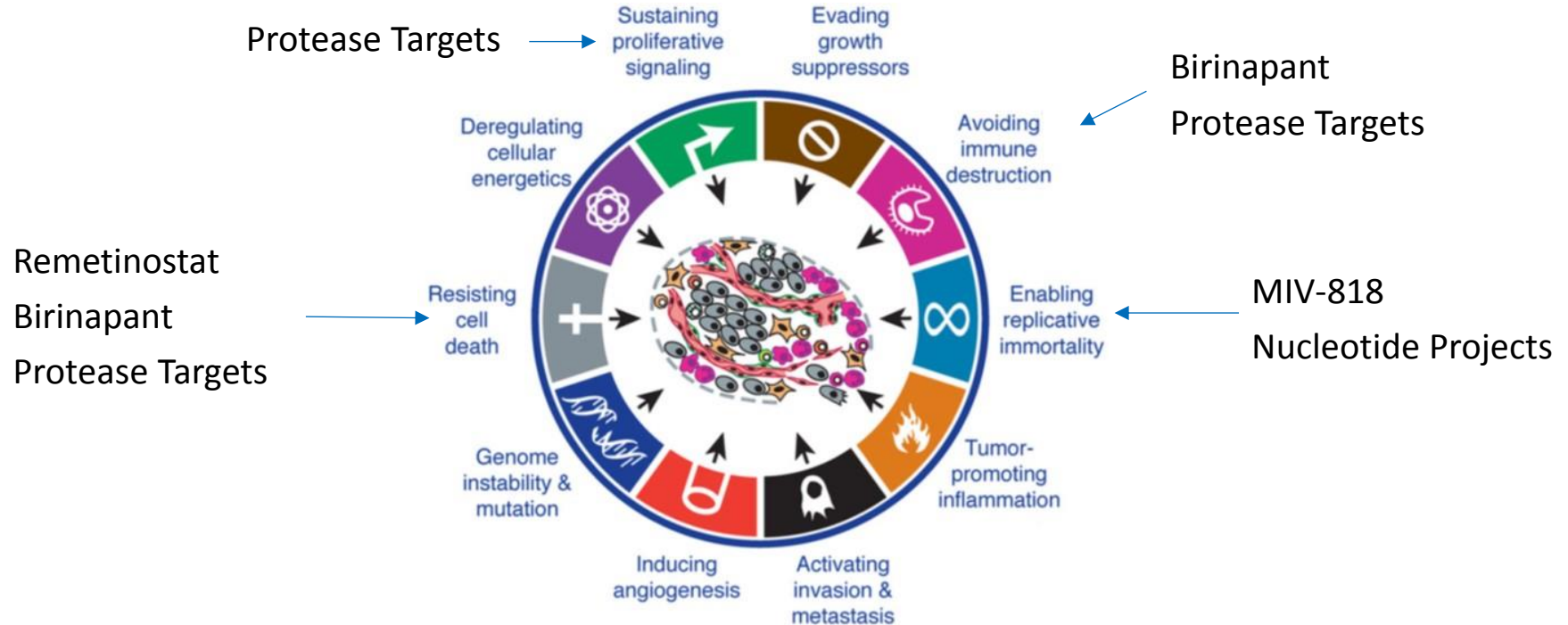


**UPPSALA
UNIVERSITET**



Medivir approaches to cancer treatment

The Hallmarks of Cancer¹⁾



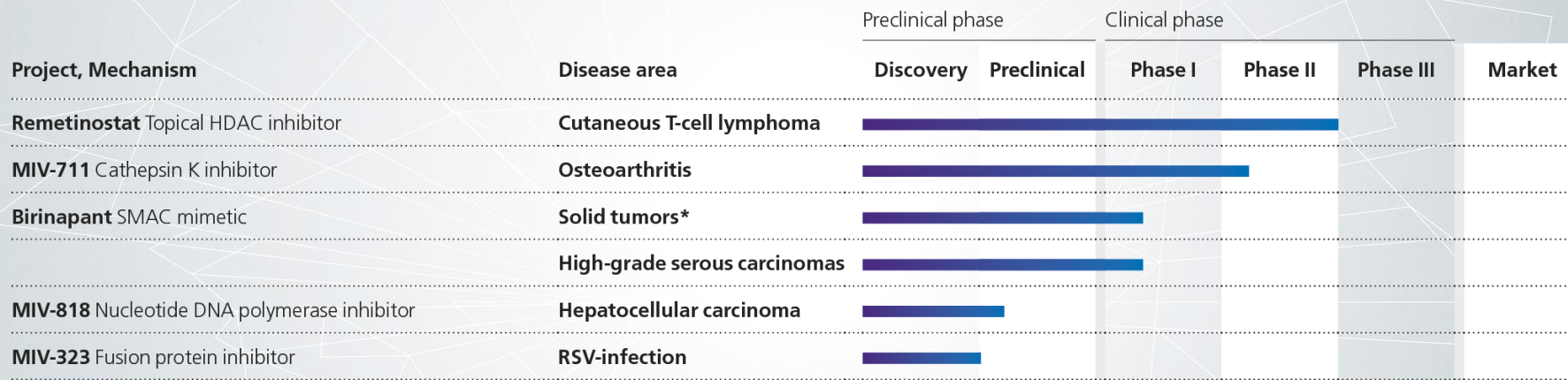
¹⁾ Hanahan and Weinberg, Cell (2011), 144, 646-674



Proprietary Projects

Medivir's proprietary pipeline is diversified from early to late stages of development

Proprietary Pipeline



* Combo with Keytruda™



Proprietary Projects
Remetinostat

CTCL is an orphan blood cancer that affects the skin

Early Stage CTCL: Disease background

- Confined to the skin
- High 5-year survival rates (~85%)
- Patients remain at this stage for extended periods and require long-term treatment
- Significant quality of life issues, especially pruritus (itch)



Patient with CTCL: plaques and patches

J Clin Aesthetic Dermatol. 2009;2(6):22–27

Significant quality
of life issues for
patients with CTCL

Patients and physicians looking for new treatment options

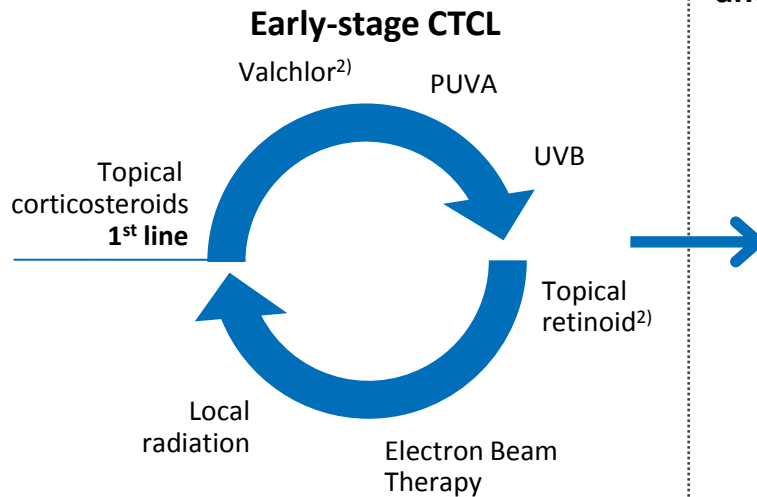
Limitations of current treatments

- Currently approved drugs lack sustained efficacy and/or tolerability and are highly irritating
- No single treatment for long-term use
- Available therapies typically used in rotation

Key unmet needs ¹⁾

- Tolerability
- Efficacy on non-responding lesions
- Reduction of clinically significant pruritus (itch)

Stage IA-IIA



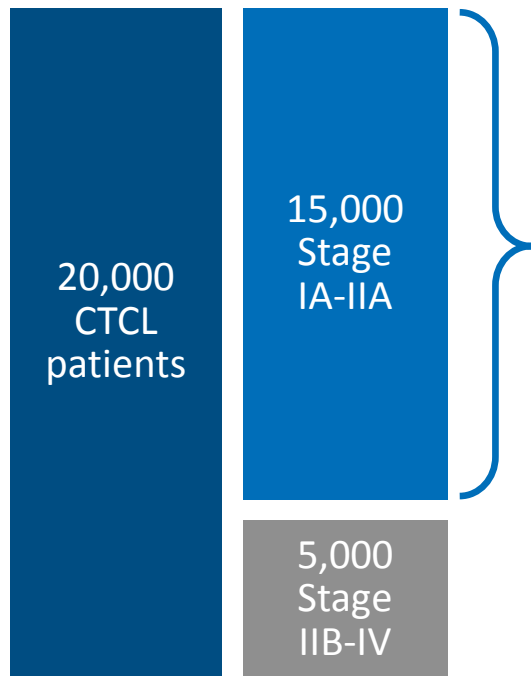
Stage IIB and beyond

"All the agents currently available for topical use in CTCL have significant side effects, due to skin irritation, and hypersensitivity." Pierluigi Porcu, MD, Jefferson

¹⁾ Medivir market research; ²⁾ Treatments with full approval in USA only

Orphan cancer disease provides a significant market opportunity

US patients¹⁾



- US is key market
- Target early stage disease (75% of CTCL)
- Orphan disease in cancer: Favorable pricing dynamics in US²⁾
 - Competitive treatments priced above \$50K per patient year³⁾
- Expected \$900 million addressable market



A 15% patient share in the US would translate into over 1 BSEK in annual revenue.

¹⁾ Leukemia & Lymphoma Society

²⁾ Medivir market research with payors

³⁾ The Medical Letter, Issue 1467, April 27, 2015 and Actelion public information

Designed to achieve better efficacy and tolerability balance

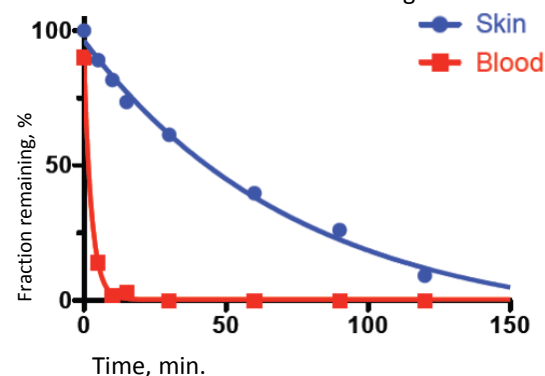
Reteminostat developed as a skin-directed HDAC inhibitor

- Approved systemic HDAC inhibitors NOT used in early-stage CTCL
 - Effective on disease, but have significant adverse events
- Reteminostat is a topical HDAC inhibitor
- Expected patent life to 2034, including extensions

- Designed to remain effective but decrease toxicity
 - Stable in skin, but degraded rapidly in blood

Stability of reteminostat

Human blood vs. Human Skin Homogenate



“As a topical, skin-specific HDAC inhibitor, reteminostat has the potential to be efficacious and have an improved safety profile compared to other available treatments.”

Youn Kim, MD, Stanford, California US

Remetinostat CTCL clinical trial results promising to date

Interim phase II data in highly treatment-experienced population

Efficacy

- Efficacy profile appropriate for early stage CTCL
- Response rates of **25-42%** at interim analysis (n=34) ¹⁾

Safety

- Highly tolerable
 - No adverse events typically associated with systemic HDAC inhibitors were observed
 - Minimal adverse events in the skin



Remetinostat can capture significant market share based on clear efficacy and an outstanding safety and tolerability profile

¹⁾ Duvic et al., ASCO 2016

Phase III clinical development for CTCL

Design

- CTCL is an orphan indication – a single phase III study expected to be sufficient for approval
- Past approvals in early stage CTCL were based on pivotal clinical studies involving <300 patients
- Preferred dose for remetinostat has already been identified
- Focus on treatment-experienced patients, in whom medical need is high

Timing

- Final results from Phase II expected Q1
- Preparations underway for End of Phase II meeting with FDA to allow Phase III start in 2H 2017
- Potential for launch in 2021



Strong interest from US clinical experts to participate in Phase III trial

Remetinostat for CTCL

"In short, the introduction of remetinostat to the market as a novel topical agent for the treatment of CTCL is likely to find broad application and lead to novel combination approaches in CTCL."

Pierluigi Porcu, MD
Jefferson, Philadelphia US



Proprietary Projects
Birinapant

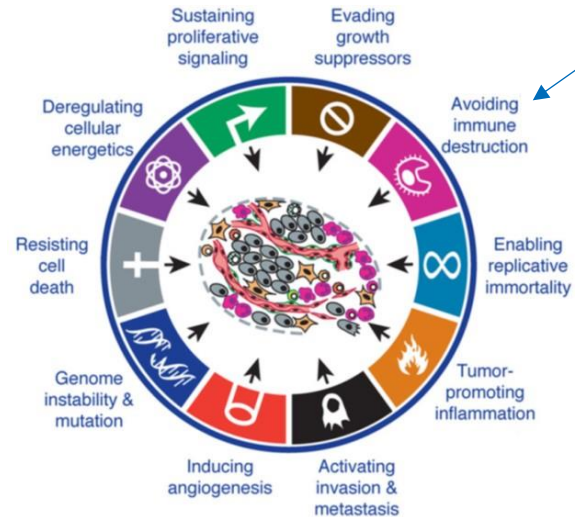
Multiple opportunities in one compound

- Birinapant designed as a mimetic of SMAC (second mitochondrial activator of caspases)
 - Expected patent life to around 2034, including extensions
- Birinapant binds to a group of proteins known as cellular inhibitor of apoptosis proteins (cIAPs)
 - cIAPs can be over-expressed by cancer cells, preventing them from undergoing apoptosis
 - Binding of birinapant to cIAPs targets them for degradation
- Recent studies have shown that cIAPs play a distinct role in cells of the immune system
- Birinapant has been shown to enhance the function of T-cells and other cells involved in the recognition and killing of cancer cells

Birinapant



Birinapant



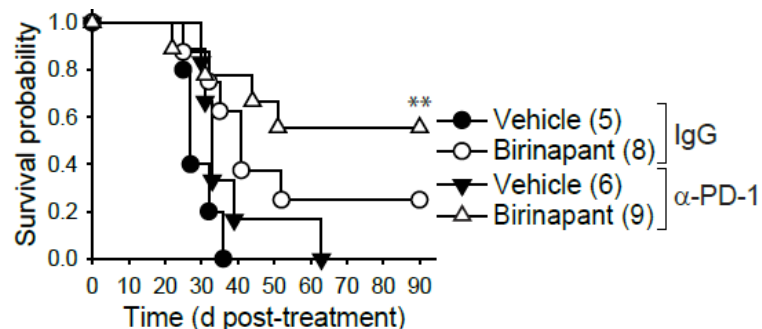
Hanahan and Weinberg, Cell (2011), 144, 646-674



As both an anti-cancer and immuno-stimulatory drug, there are a number of high-value opportunities for birinapant

Birinapant activity complements existing immuno-oncology agents

- Recent publications show that a combination of a cIAP antagonist, such as birinapant, with an anti-PD1 mAb has enhanced activity in preclinical solid tumor¹⁾ and multiple myeloma models²⁾ compared to either agent alone
 - Combining the immune-enhancing effects of birinapant with the restoration of T-cell function by PD-1 antagonism
 - Restoring the susceptibility of cancer cells to the proapoptotic signals from the immune system



Strong rationale for combining Merck's Keytruda with birinapant

¹⁾ Beug et al., Nature Communications (2017) 8:14278

²⁾ Chesi et al., Nature Med. (2016) 22, 1411–1420

Despite immuno-oncology breakthroughs patients have unmet needs

Multi-billion dollar market, and growing
for immuno-oncology agents



< 1/2
of patients derive
meaningful clinical benefit

Combination
regimens to
enhance benefit
are a major trend
in cancer R&D

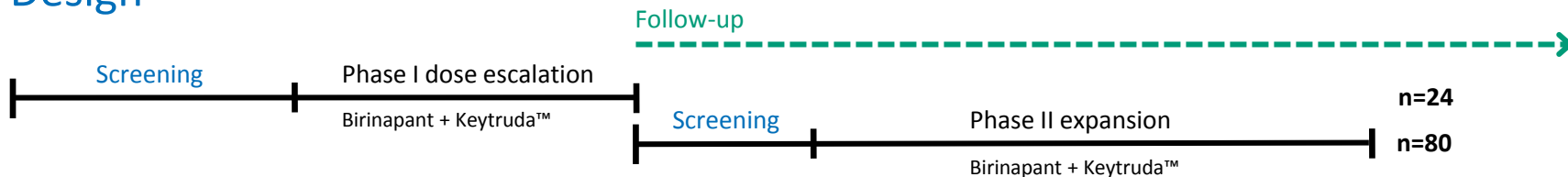
¹⁾ Merck and Bristol-Myers Squibb financial reports, full year 2016

Birinapant/Keytruda™ combination: Phase I/II Study

Combination with Keytruda™ MERCK

- Development collaboration with Merck for the Phase I/II study.
- Keytruda™ provided at no cost.
- Joint Development Committee to oversee the study, bringing Merck's Immuno-Oncology expertise.
- Medivir retains full global rights to birinapant and the data generated.

Design



Phase I: sequential group dose-escalation to determine the dose-limiting toxicity and recommended Phase II dose, in combination with 200 mg pembrolizumab.

Phase II: safety and tolerability of the recommended dose of Birinapant, in combination with pembrolizumab.

High-grade serous carcinoma: few treatment options

High-grade serous carcinomas: Group of gynecological cancers

- ~70% of all ovarian carcinoma, and ~90% of advanced (stage III/IV) ovarian carcinomas
- Treatment with platinum drugs is standard of care, but most relapse within 6-18 months
- Few treatment options after relapse, as tumors are usually platinum resistant



Significant potential to expand market with new effective treatment options

¹⁾ Decision Resources, LLC

Targets a key unmet medical need in high-grade serous carcinoma

Tumour-initiating, CA125- subset of cells resistant to platinum in HGSCs identified by UCLA researchers¹⁾

- Stem-like cells
- Susceptible to birinapant in ~50% of patients
- Expression of cIAPs, the molecular targets of birinapant, correlates with birinapant susceptibility
- Bioassay will allow selection of patients expected to benefit



Strong rationale for combining birinapant with platinum-based chemotherapy

¹⁾ DM Janzen et al., Nature Commun. (2015) 6:7956

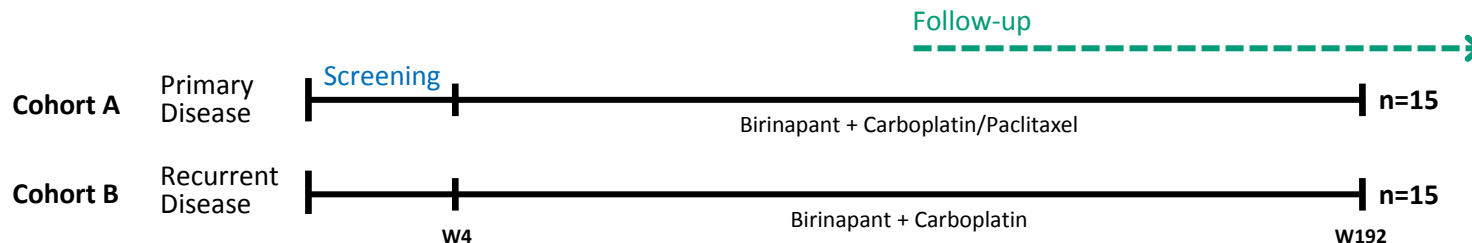
Birinapant Phase I/II Study in HGSC with UCLA

High-grade serous carcinoma UCLA

- UCLA investigator-initiated Phase I/II study
- Medivir support primarily with drug supply, with full rights to generated data

Design

- Single center, open label, proof-of-concept study evaluating efficacy

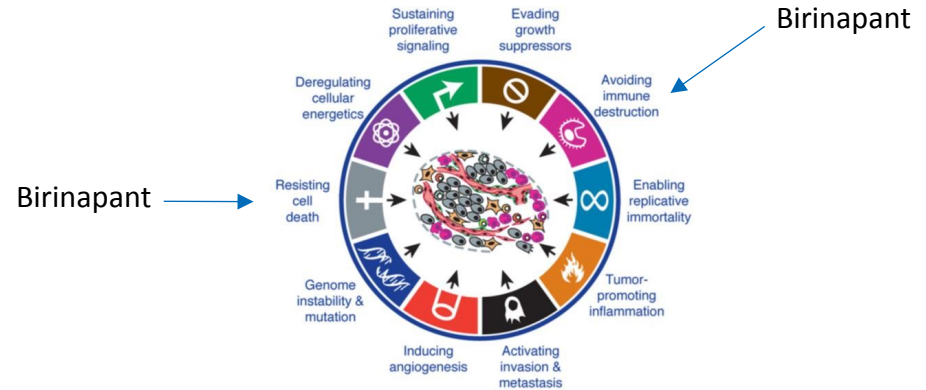


Population: Patients with advanced newly diagnosed or recurrent high grade serous carcinomas whose tumors score positive in the bioassay


Multiple opportunities in one compound

- Selective and distinct actions on different cells provide new opportunities for development

- Birinapant is the SMAC mimetic included in the NIH's Cancer Therapy Evaluation Program (CTEP) - ctep.cancer.gov
 - Available to cancer researchers for preclinical assessment
 - Opportunity for NIH-funded progression into early clinical assessment



Hanahan and Weinberg, Cell (2011), 144, 646-674

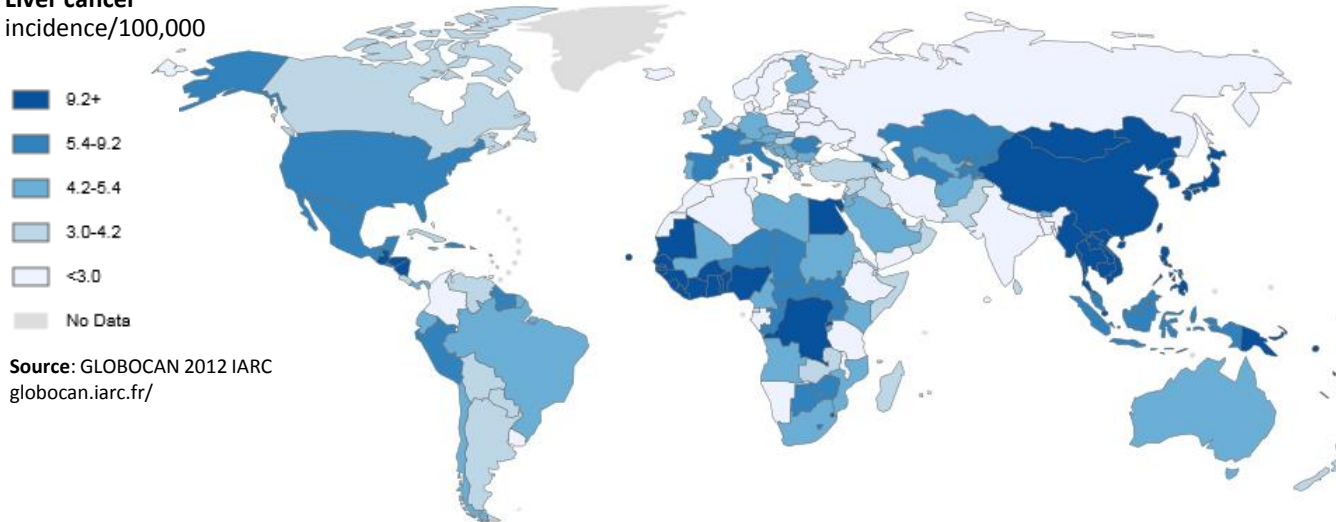


Proprietary Projects
MIV-818

Liver cancer is 2nd leading cause of cancer related death worldwide

- Hepatocellular carcinoma (HCC) is the predominant form of liver cancer
- HCC is a orphan cancer in Western markets, but much more significant in Asia
- One of fastest growing and most deadly cancers in US

Liver cancer
incidence/100,000



Source: GLOBOCAN 2012 IARC
globocan.iarc.fr/

Opportunity for expansion indications in liver cancer

- Liver metastases from other sites (e.g. colon)
- Intra-hepatic cholangiocarcinoma

Source: Howlader et al. (eds). SEER Cancer Statistics Review, 1975-2011, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2011/

Few existing options for treatment of HCC

Treatment guidelines by stage of disease

Early

Resection and transplantation

Intermediate

TACE (local delivery of chemotherapy)

- Costly, risky, technically demanding
- Number of contraindications

Advanced

Sorafenib (kinase inhibitor)

- Only ~3 month survival benefit from sorafenib

Select pipeline treatments for advanced disease

nivolumumab (immunotherapy)

regorafenib (tyrosine kinase inhibitor)



Untapped market potential
with only one approved targeted drug

$\approx \$700_m$ \rightarrow $\approx \$5.6_{bn}^{1)}$
 2015E major market sales 2025E major market sales

(1) Decision Resources, LLC

Potential to improve outcomes for patients

Organ-targeted therapy

- Molecularly targeted therapies likely to be limited by genetic heterogeneity of HCC (unlike lung cancer, CML, breast)
- MIV-818 targets the tumor site and can kill cancer cells not limited by single pathway

Combination with immunotherapy

- Nivolumab likely to be successful for only proportion of patients
- MIV-818 likely to be beneficial with immunotherapy by targeted generation of neoantigens released by dying cancer cells local to disease

Combinations with kinase inhibitors

- Sorafenib and regorafenib offer limited survival benefit
- MIV-818 is synergistic with sorafenib and regorafenib



MIV-818 potential to address entire advanced liver cancer market, standalone or in combination with other treatments

Take a nucleoside, improve it with Medivir prodrug technology

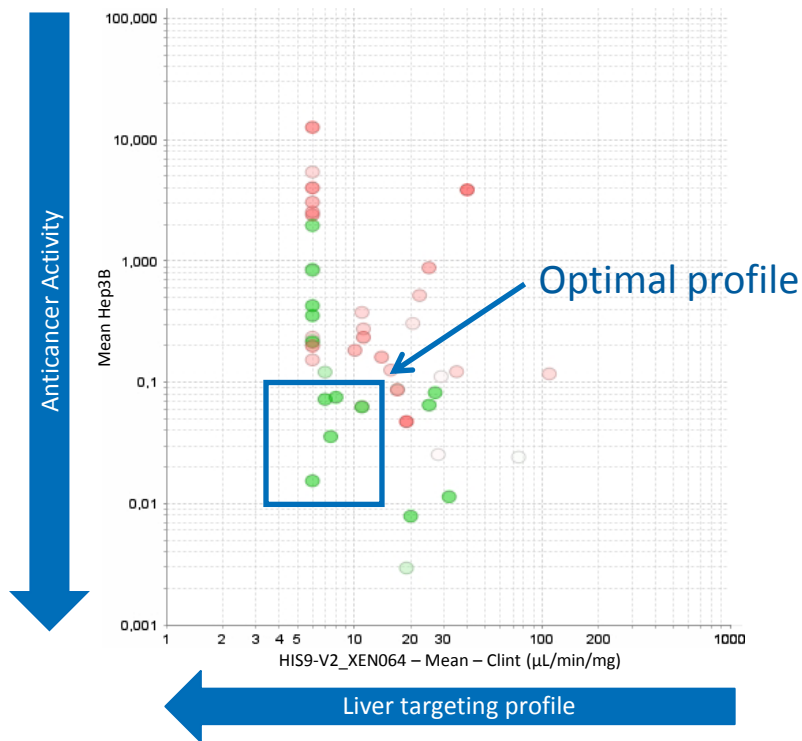
MIV-818: A NUCLEOTIDE PRODRUG FOR LIVER CANCER

Starting point was troxacitabine

- Not a substrate for enzymes conferring resistance to other nucleoside analogues
- Active in preclinical cancer models and in clinic
- Failed in clinic due to systemic dose limiting toxicities

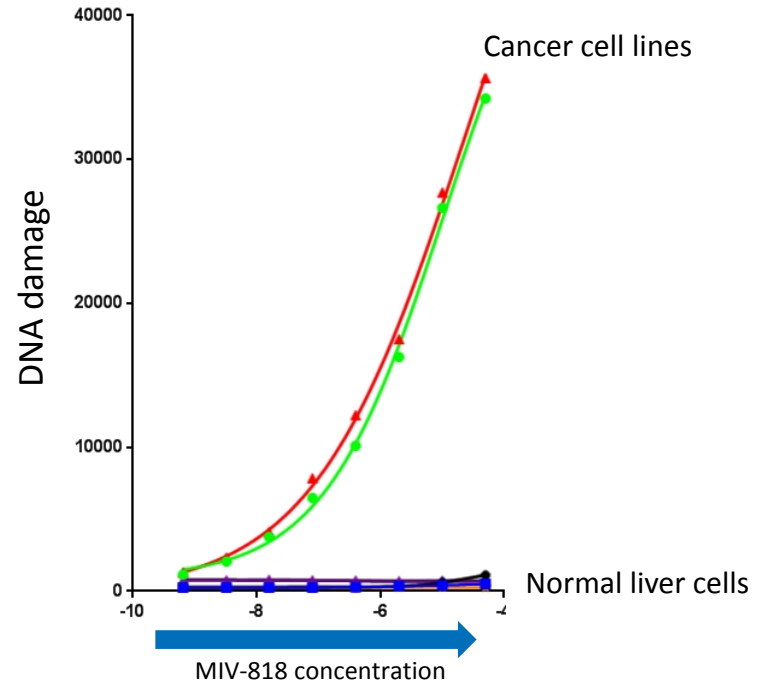
Novel compounds designed using Medivir technology to improve activity and safety

- Enable directed delivery to the liver
- Increase cancer cell killing



MIV-818: A liver-targeted nucleotide prodrug for liver cancers

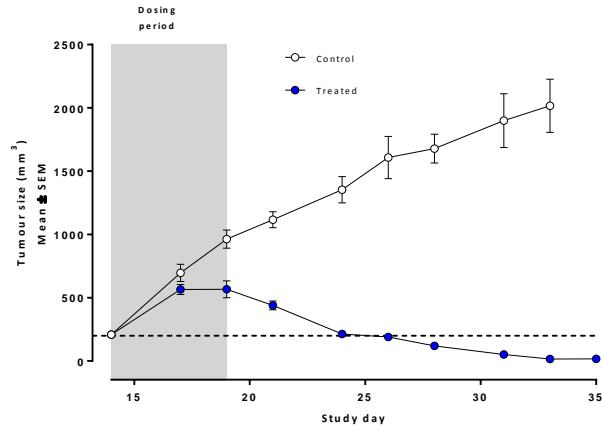
- Prodrug with enhanced activity against HCC cell lines
 - 10 x more potent than parent troxacitabine
- Selective for HCC cells relative to non-cancerous human hepatocytes (right)
- Synergistic with sorafenib, the current standard of care for advanced HCC
- Greater than 100-fold improved delivery to the liver compared to the parent nucleoside
 - Proof of concept *in vivo*
- Comprehensive characterization of anti-tumor activity ongoing



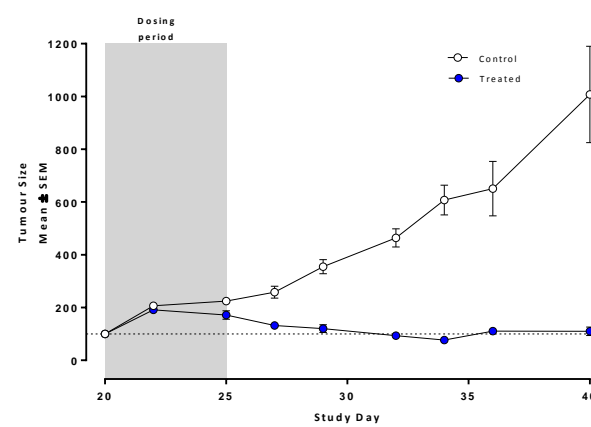
Comprehensive understanding of target exposures and effects

Strong anti-tumor effect in different mouse models

Model 1 (HepG2)

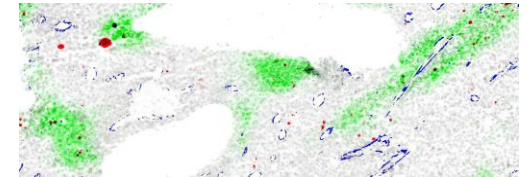


Model 2 (Hep3B)

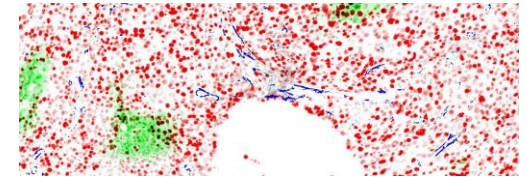


Clear biomarker of DNA damage in tumour caused by drug

Biomarker DNA damage



Control Vehicle-pH2AX



Treated 25 mg/kg-pH2AX

- Identified target concentrations of drug needed for effect
- Plan to take clinical biopsies from phase I studies to confirm we have right dose and expected effects

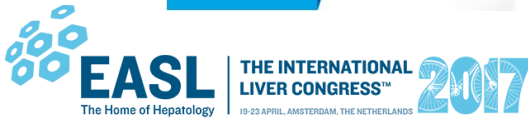
MIV-818 in preclinical development for the treatment of HCC and other liver cancers

Strong external interest

- Project concepts and clinical plans discussed with leading liver cancer physicians and scientists in Sweden and the UK
- MIV-818 selected for presentation at key scientific meetings in 2017



HCC SUMMIT 2017
2 - 5 FEBRUARY 2017
GENEVA, SWITZERLAND



Plans underway for development

- Preparation for clinical trials ongoing
- Scale up of material for regulatory and clinical studies
- Regulatory safety studies
- First clinical trial will be designed to deliver more than simply safety
 - Confirm liver-targeting concept in man
 - Identify exposures in human liver tumor biopsies
 - Evidence of efficacy from biomarker studies of tumor biopsies



Proprietary Projects
MIV-711

Osteoarthritis is a leading cause of chronic disability

Overview

- Progressive disorder characterized by joint degeneration, pain and loss of function
- Most prevalent joint disease; up to 40% over 65 suffering from knee or hip OA
- Both excessive cartilage degradation and bone resorption
- Current treatments are insufficient focusing on symptom relief only

Key unmet needs

- Suspend disease progression and relieve pain
- Prevent degradation of subchondral bone, recently recognized as a key target for OA, and cartilage
- Prevent the pain associated with the disease
- Avoiding joint replacement surgeries

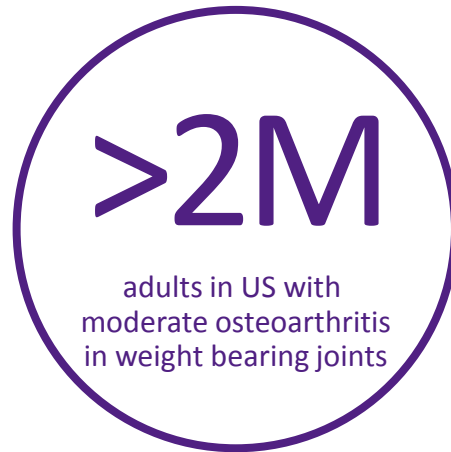


No effective and safe disease modifying osteoarthritic drugs (DMOADs) are available

Sources: Hunter et al, Nat Rev Rheumatol, 2014; Reginster et al, Ann Rheum Dis 2013

Osteoarthritis a large and growing market opportunity

Prevalence of osteoarthritis is increasing due to aging population and obesity epidemic



**US market
>\$6B annually ²⁾**

**A disease-modifying
OA drug (DMOAD)
has great market
potential**

¹⁾ As of 2012. Nat. Rev. Rheumatol., 2014

²⁾ Annual treatment cost for a drug that impacts disease progression of 3,000 USD/Year (Losina et al 2014)

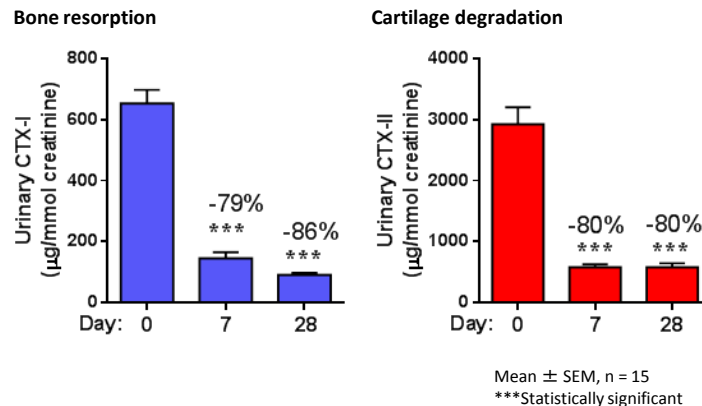
A potent, selective, once daily cathepsin K inhibitor for OA

Mechanism of action

- Cathepsin K inhibition is expected to be joint protective in osteoarthritis
- MIV-711 is a reversible, selective inhibitor of cathepsin K

Pre-clinical data with MIV-711

Joint protective effects on both bone and cartilage in preclinical OA models as reflected by reduced biomarkers of cartilage degradation and bone resorption

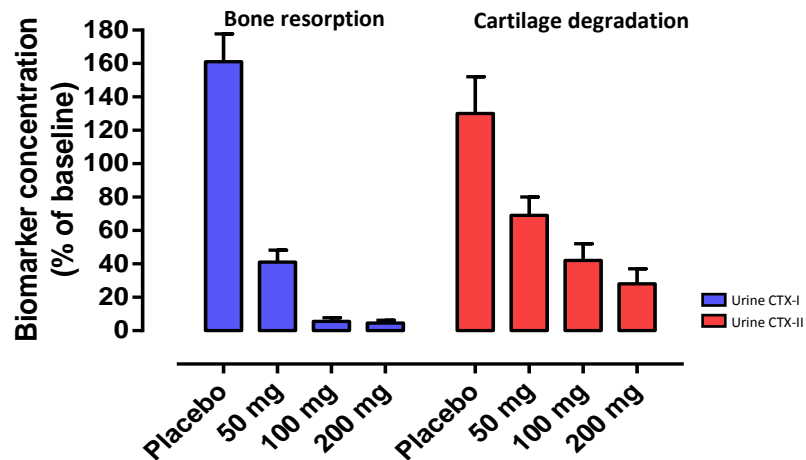


Phase I data: Indication of efficacy with safety and tolerability

- Exposure- and dose-dependent decrease in biomarkers of cartilage degradation and bone resorption (similar to preclinical data)

Results by dose, 7 day QD dosing, measurement on day 7

Average for all patients per dose



- Generally safe and well tolerated up to 28 days
- Overall incidence of drug-related adverse events similar across all dose levels of MIV-711 and was comparable to placebo; no apparent drug-related trends

New imaging methods enable shorter and smaller studies

Traditionally disease severity and progress determinations based on:

- monitoring of symptoms and
- an insensitive 2D X-ray methodology

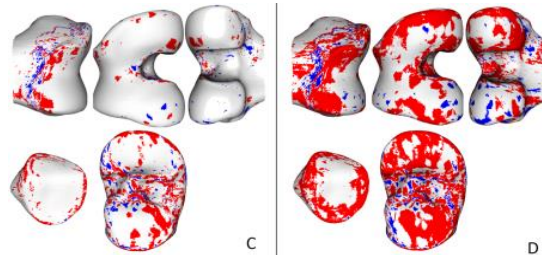
Improved MRI imaging technologies shorten PoC studies and require fewer patients to see outcomes

- Quantifies complex structures and takes 3D surfaces into account
- Detects and quantifies soft tissue components
- Enhances sensitivity and reproducibility to facilitate modelling for better prediction



Picture modified from: Link TM et al., Radiology.2003 Feb;226(2):373-81

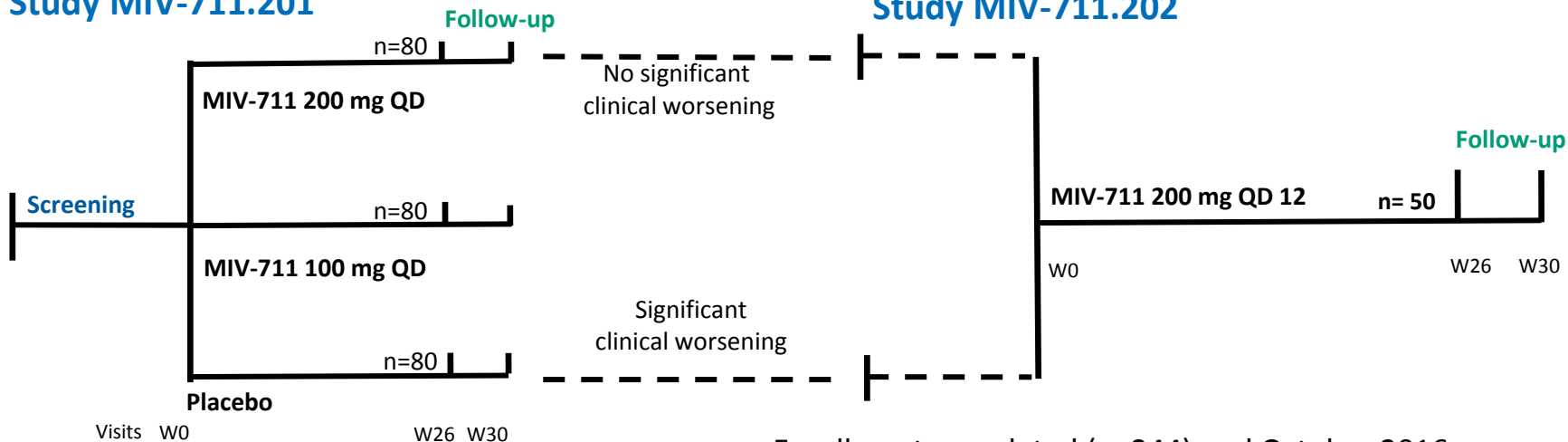
Single patient joint surface changes over 2 years



Picture modified from: Bowes MA, et al. Ann Rheum Dis 2015;74:519-525

Ongoing phase IIa study in osteoarthritis

Study MIV-711.201



Patients with moderate knee OA and chronic pain

Sites: 6 centers in 6 European countries

End-points include effects on cartilage and bone (MRI), Pain (11-point rating scale)

- Enrollment completed (n=244) end October 2016
- Safety: all four planned DMC meetings concluded “continue as planned”
- Primary 6 month data expected 3Q 2017;
12 and 6 month data from extension study expected 1Q 2018

Partnership Pipeline

Products generating sales

Zovido/Xerclear

GSK – labial herpes

Olysio

Janssen – HCV

Projects in development

JNJ-4178

Janssen – HCV

MIV-802

TrekTx – HCV

MIV-323

(ongoing discussions) – RSV

Partnerships where they meaningfully enhance the value of a project

Partnership Pipeline

Project	Disease area	Partner	Preclinical phase		Clinical phase			Market	
			Discovery	Preclinical	Phase I	Phase II	Phase III		
Olysio (simeprevir)	Hepatitis C	Janssen							
JNJ-4178 AL-335+odasvir+simeprevir	Hepatitis C	Janssen							
Xerclear	Labial herpes	GSK and Meda							
MIV-802 , nucleotide NS5B polymerase inhibitor	Hepatitis C	Trek Therapeutics							

Partnered products generating sales

Zoviduo/Xerclear

acyclovir + hydrocortisone

Cumulative revenues to Medivir

≈ 350_m SEK

Medivir interests

- Royalties from sales
- Approval milestones for additional OTC switches



Olysio

simeprevir

Cumulative revenues to Medivir

≈ 2.5_{bn} SEK

Medivir interests

- Royalties from sales
- Retained rights in the Nordics



Partnered projects in development: JNJ-4178 for HCV

JNJ-4178 *AL-335 + odalasvir + simeprevir*

Interim PIIa data showed 100% SVR12 in patients receiving treatment for as short as six weeks with the triple combination

Cohort #	Simeprevir dose (mg)	Odalasvir dose (mg)	AL-335 dose (mg)	Treatment duration (weeks)	Number (%) with SVR12 or SVR24
1	100 QD	50 QD	400 QD	8	20/20 (100%), SVR24
2	--	50 QOD	800 QD	8	18/20 (90%), SVR12
3	75 QD	50 QOD	800 QD	8	20/20 (100%), SVR12
4	75 QD	50 QOD	800 QD	6	20/20 (100%), SVR12

QD: every day
QOD: every other day
SVR: sustained virologic response

Further information on the trial planning and conduct can be found on clinicaltrials.gov with identifier NCT02765490.

Status and upcoming milestones

- Phase IIb ongoing in HCV
- Also ongoing phase IIa study in patients with or without compensated cirrhosis
- Filing for approval expected 2019

Medivir interests

- Milestones and royalties, if approved

Partnered projects in development: MIV-802 for HCV

MIV-802 *Nucleotide NS5B polymerase inhibitor*

- MIV-802 is a potent, pan-genotypic liver-targeted nucleotide inhibitor of the HCV NS5B polymerase
- Preclinical data: MIV-802 effective in combination with other classes of anti-HCV drugs
- Medivir partner TREKtx is developing combination treatments for HCV with their portfolio of antiviral agents



Status and upcoming milestones

- Phase I initiation by Trek will be the first major event
- Potential for launch 2024

Medivir interests

- Development milestones
- Royalties capped in mid-teens percentage
- Medivir retains rights to MIV-802 in Greater China

MIV-323: The Best-in-class RSV Fusion inhibitor

RSV background

- Respiratory syncytial virus (RSV) is a virus that causes respiratory tract infections
- Major cause of infant hospital visits, and also impacts the elderly and immune compromised
- No current approved treatment for RSV

Data supports best-in-class profile

- Preclinical and clinical data show that very high levels of viral inhibition are required for RSV treatment efficacy
 - Desire product profile: high level of effectiveness against all RSV strains throughout the dosing period in all patient populations
 - Internal assessments indicate that competitor RSV Fusion inhibitors cannot offer this profile
- MIV-323 is expected to deliver superior treatment efficacy to competitors based on preclinical data
- Presented at



Medivir is actively pursuing partnering discussions

Outlook

2017

Activities in 2016 to have financial impact in 2017

Significant events in 2016

- Sale of BioPhausia to KaroPharma for SEK 908m (net proceeds maximum of SEK 869m to be distributed in an ongoing voluntary redemption program)
- Acquisition of clinical stage oncology assets for SEK 111m
- Re-organisation and split costs of SEK -52m

Key figures

- Liquid assets and ST investments of SEK 1,698.5m

Impact in 2017

- Reduction of commercial activities
- Cost savings from the reorganization in Q4 2016
- Investments in clinical programs

SEK M	Q1-Q4	
	2016	2015
Net turnover	93.0	474.3
Raw materials and consumables	-3.1	-2.7
Other external costs	-218.8	-222.8
Personnel costs	-173.0	-178.6
Amortization and Depreciation	-11.8	-18.0
Operational loss (EBIT)	-312.4	55.4
Cash flow from operating activities	-180.1	307.4
Liquid assets and ST investments	1,698.5	1,077.9

Balance of R&D spending weighted towards development stage

Expected clinical stage projects costs including next milestones

Remetinostat

SEK 405m (\$47m) expected costs to NDA submission over a 3 year period

- Clinical development milestones to third parties totaling ~SEK 105m (\$12m) at Phase III start
- Phase III study expected to cost <SEK 300m (\$35m)

Birinapant

~SEK 150m (\$18m) expected costs to completion of planned studies

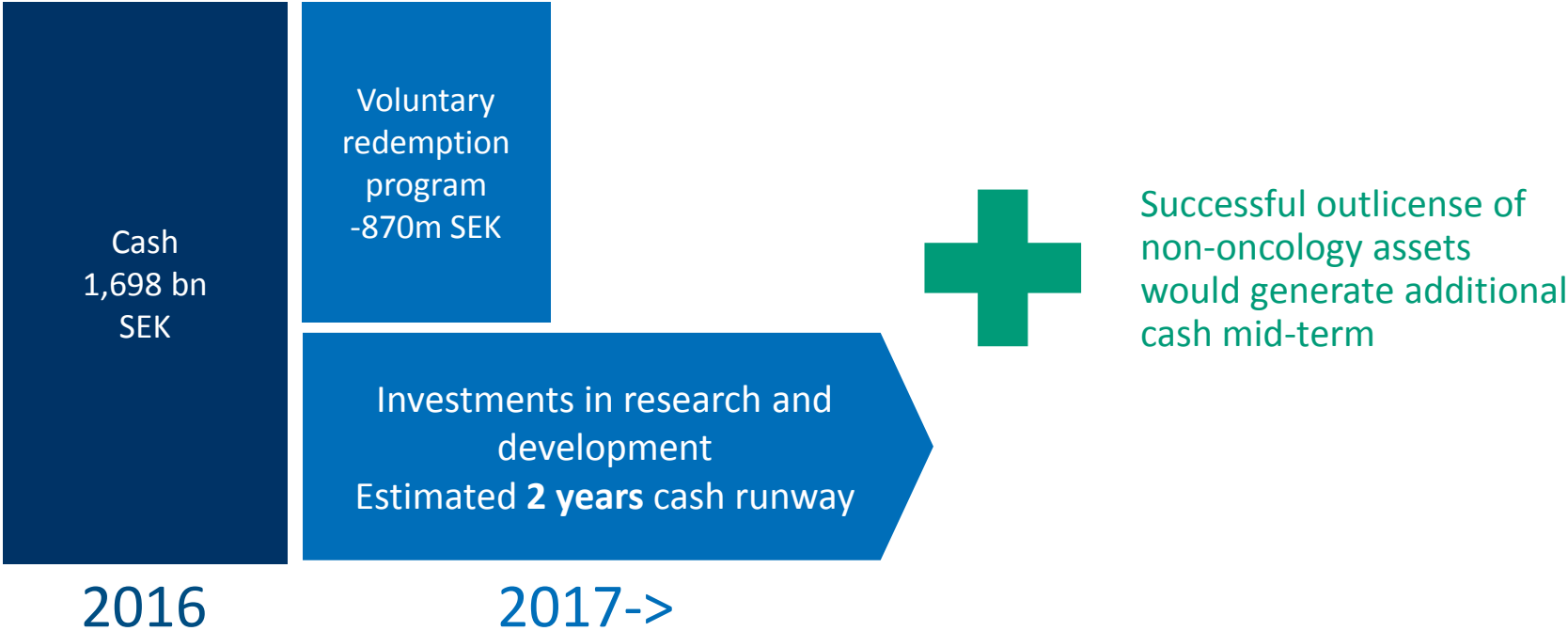
- Cost of Keytruda™ study: <SEK 150m (\$18m) over 3 years
- Costs of HGSC study will be limited – principally in the form of drug supply
- No development milestones expected in this time period

MIV-711

~SEK 85m (\$10m) expected costs to completion of planned studies

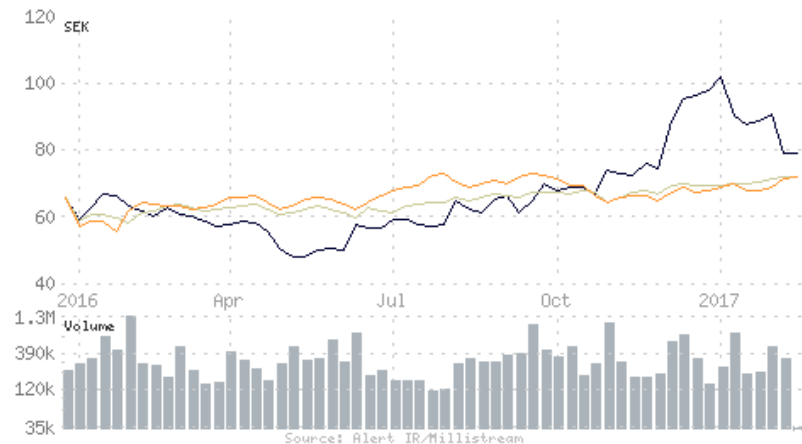
- Completion of ongoing Phase IIa program

Strong cash position to fund development



Shareholder base

Share graph since 2016-01-01



≈ **2.1** SEK bn
Market Cap

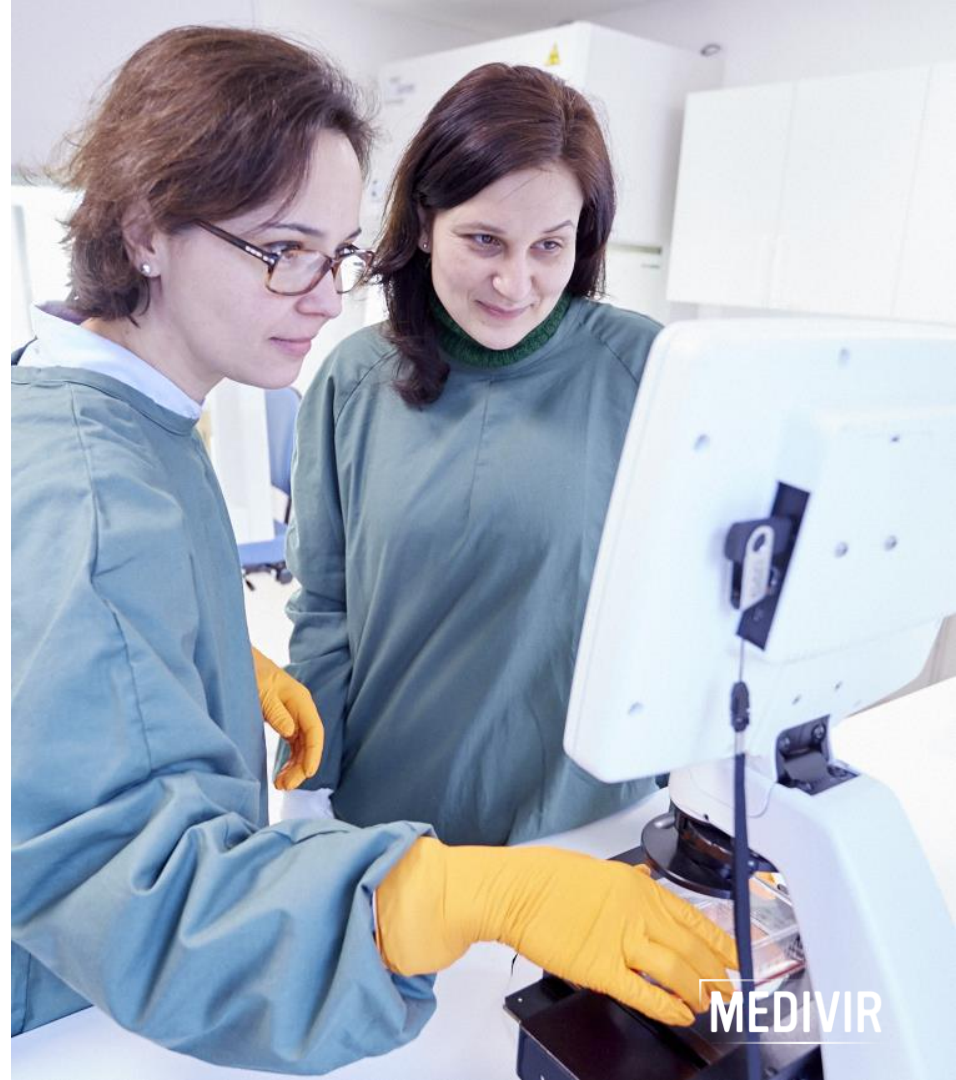
40%
International ownership

≈ **9,000**
Total Shareholders

Name	A shares	B shares	% Vote	% Capital
Bo Öberg	284 000	182 991	9.3%	1.7%
Nils Gunnar Johansson	243 500	57 065	7.7%	1.1%
Nordea Investment Funds	0	2 197 454	6.8%	8.2%
MSIL IPB Client account	0	2 046 542	6.3%	7.6%
Credit Suisse SA	0	1 716 552	5.3%	6.4%
HealthInvest Value Fund	0	1 706 838	5.3%	6.3%
HealthInvest Microcap Fund	0	1 126 100	3.5%	4.2%
UNIONEN	0	1 032 172	3.2%	3.8%
Christer Sahlberg	78 858	20 898	2.5%	0.4%
Svea Ekonomi AB	0	696 186	2.2%	2.6%
Top 10 shareholders	606 358	10 782 798	52.1%	42.3%
All other shareholders		15 576 881	47.9%	57.7%
TOTAL	606 358	26 359 679	100%	100%

2017 Upcoming Milestones

- ❑ Complete remetinostat Phase II study and start remetinostat Phase III (2H 2017)
- ❑ Start birinapant Phase I/II study in combination with Keytruda™
- ❑ Start investigator initiated Phase I/II birinapant study in gynecological cancers
- ❑ Complete MIV-711.201 Phase IIa study
- ❑ Complete MIV-818 IND-enabling preclinical studies
- ❑ Further data on JNJ-4178 program (HCV)



Improve life for cancer patients through transformative drugs

- R&D dedicated company focused on oncology
- Deep clinical pipeline with multiple value drivers
- Technology platforms consistently delivering well-differentiated new projects
- Operating in collaborations
- Proven track record in generating revenue through partnerships
- Multiple milestones providing near-term value inflection opportunities
- Strong and experienced management team

