

# MEDIVIR



Improving life for cancer patients  
through transformative drugs

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September 2018

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# Medivir in Brief

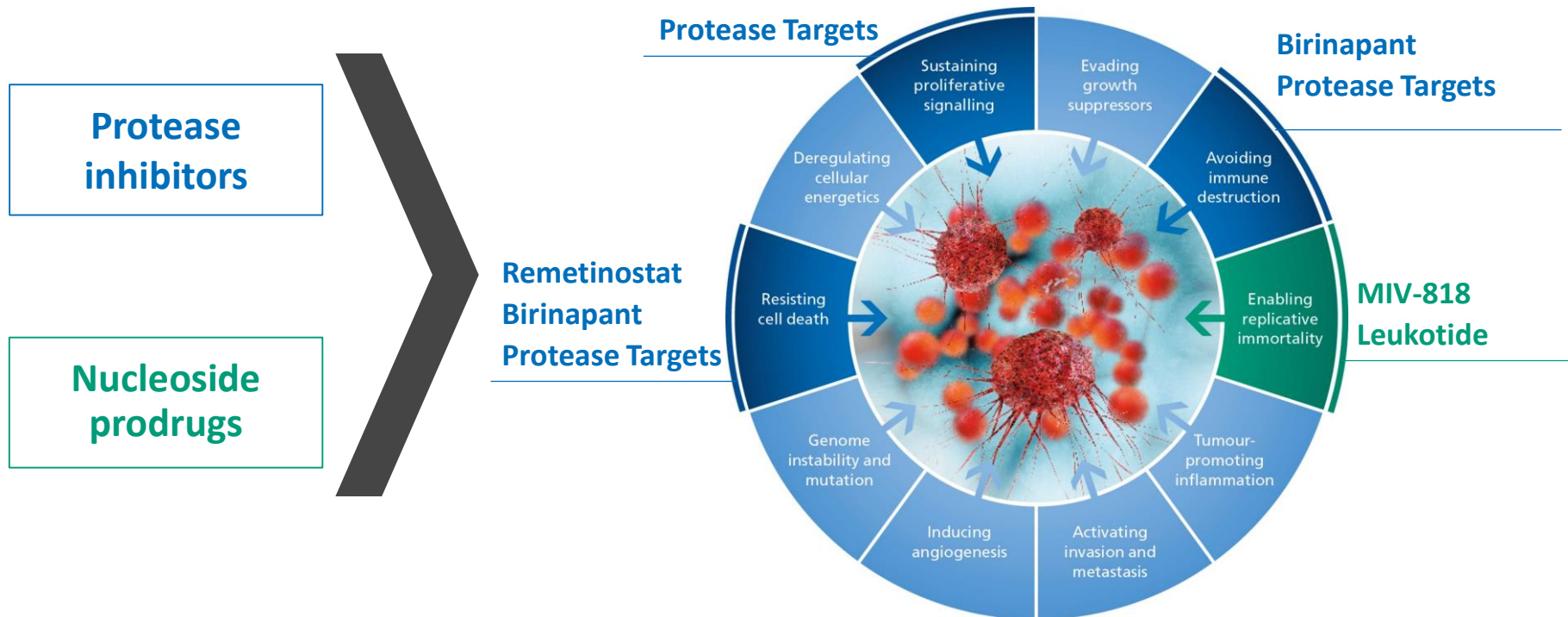
# Who is Medivir?

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- Using **world-class scientific expertise** to bring new therapies to cancer patients
- **Clinical pipeline** composed of projects with **multi-billion dollar sales** potential as well as **orphan cancer drug candidates**
- Strong commercial focus – delivered more than **20 global partnerships** and **2 products from idea to market**
- Competences **from discovery through regulatory approvals**



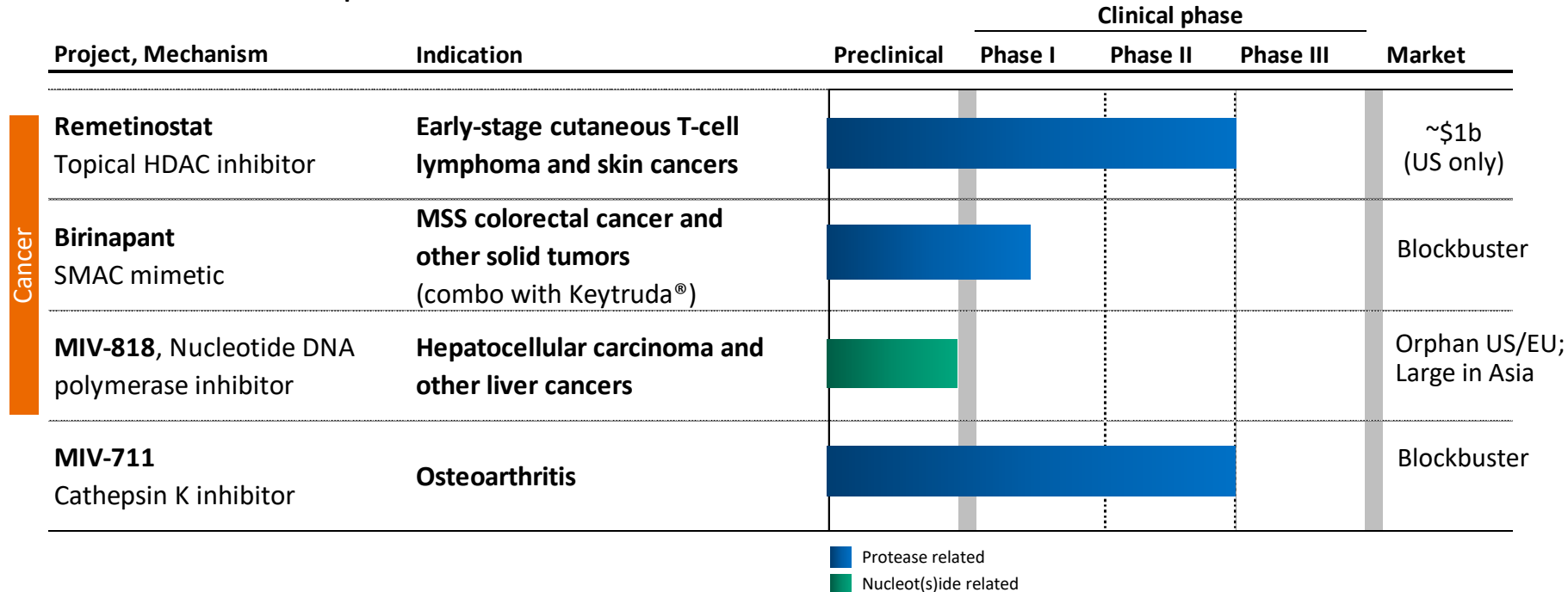
# Leveraging scientific expertise to build pipeline in oncology



Adapted from: The Hallmarks of Cancer: The Next Generation.  
Hanahan and Weinberg, Cell (2011), 144, 646-674

# Oncology drug development in areas of high unmet need

Strong and balanced development pipeline based around areas of scientific expertise and focused on cancer



# Collaborations enhance the value of programs

## Academic



## Industrial

### Product/Project

### Platform Link

### Partners

### Status

### Medivir Interests

Zoviduo®/Xerclear  
(labial herpes)  
*acyclovir + hydrocortisone*

Nucleoside  
analogue



Marketed

- Royalties from sales
- Approval milestones for additional OTC switches

MIV-802 (HCV)  
*Nucleotide NS5B  
polymerase inhibitor*

Nucleotide



Phase I ready  
Ascleitis intends to  
file IND in China  
during Q3 2018<sup>1</sup>

- Development milestones
- Royalties from sales

# Competences from discovery through regulatory approvals

## Management team with extensive experience and proven track record of successful development



**CHRISTINE LIND**, President and CEO

- EVP, Business Development at Medivir
- VP, Business Development, LifeCell Corporation
- Biotech and pharma strategic advisory and capital raising at Merrill Lynch & Co. and GKM & Co.
- B. Sc. Finance and Info Systems, NYU and MBA, Columbia Business School



**RICHARD BETHELL**, Chief Scientific Officer

- 28 years drug discovery and development in oncology and infectious disease
- VP, Biology/DMPK (Boehringer Ingelheim (Canada))
- VP, Therapeutic Research (Shire)
- Pfizer and GlaxoSmithKline R&D
- Doctor of Philosophy (D. Phil.) in chemistry from Oxford University



**ÅSA HOLMGREN**, EVP Strategic Regulatory Affairs

- Head of Regulatory Affairs at Orexo AB
- Various large pharmaceutical companies, including 12 years as Senior Global Regulatory Affairs Director at AstraZeneca, and at AstraZeneca in Canada and Japan
- M. Sc. in Pharmacy, trained Uppsala University



**ERIK BJÖRK**, Chief Financial Officer

- CFO for AstraZeneca Sweden Operations
- 11 years with Procter & Gamble, in global finance leadership positions in Switzerland, UK and Sweden
- MSc in Finance and LLM from Lund University



**CHRISTINA HERDER**, EVP Strategic Business Development

- CEO of Modus Therapeutics
- Director, Corporate Development at Sobi
- Project & Portfolio Management at Biovitrum
- Current member of the boards of PCI Biotech and Idogen
- Ph. D. in physical chemistry from Royal Institute of Technology and MBA from Stockholm University



**DANIEL ERIKSSON**, Chief Information Officer

- Various IT roles relating to security, decision support, innovation, and digitalization
- Most recently, Technical Director for G4S Risk Management
- PhD Coventry University and BSc in Systems Science, Linköping University

**Cancer biology, chemistry, intellectual property, DMPK, CMC, toxicology, clinical development, regulatory strategy, business development**

79 employees, 43 with PhDs,  
18 nationalities, balanced gender split





# MIV-711 for Osteoarthritis

# MIV-711: ORAL ONCE DAILY CATHEPSIN K INHIBITOR WITH FDA FAST TRACK STATUS FOR OA DISEASE MODIFICATION

## No existing disease-modifying drug for osteoarthritis

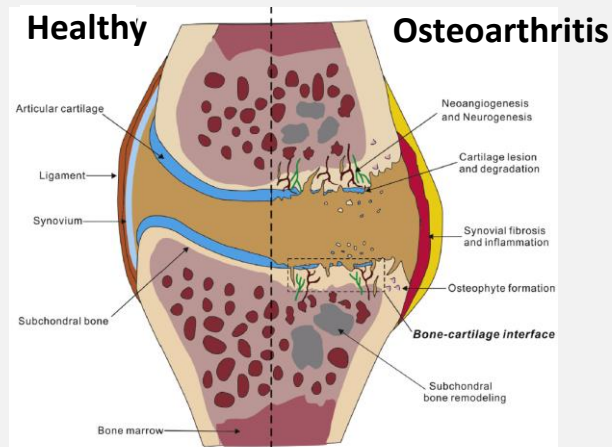
### Blockbuster revenue opportunity for a disease-modifying osteoarthritis drug

- Affects >30m adults in the US, and ~240m worldwide
- Prevalence increasing due to aging population and obesity epidemic
- Current treatments are insufficient focusing only on symptom relief



### Disease involves both bone and cartilage

- Cathepsin K protease involved in the breakdown of collagen in both bone and cartilage



Yuan *et al.* Osteoarthritis and Cartilage (2014), 22, 1077

**MIV-711 is a potential disease-modifying and convenient osteoarthritis drug:**  
Only cathepsin K inhibitor in development for osteoarthritis, with once daily oral administration

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

# Initial phase IIa data show unprecedented OA disease modification in 6 months

## Benefit on joint structure

Change in medial femur joint bone area (%)

1% increase

66% reduction (p=0.002)  
63% reduction (p=0.004)

■ Placebo n=66  
■ 100mg n=69  
■ 200mg n=69

Change in central medial femur cartilage thickness (µm)

65.6 decrease

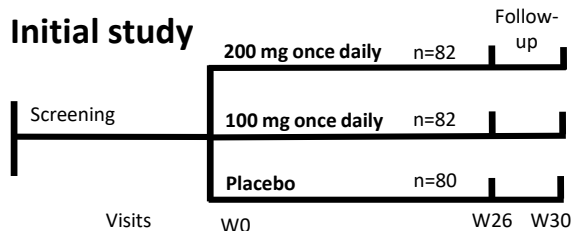
+76.1 (p=0.023)  
+43.6 (p=0.125)

■ Placebo n=66  
■ 100mg n=69  
■ 200mg n=69

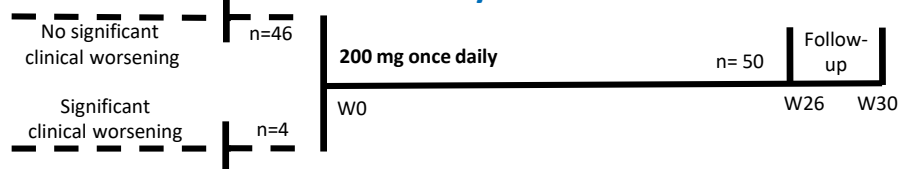
## Improvement in clinical symptoms

- MIV-711 consistent tendency to improve outcomes across all pain and other patient reported symptoms vs. placebo
- Acceptable safety and tolerability profile

### Initial study



### Extension study

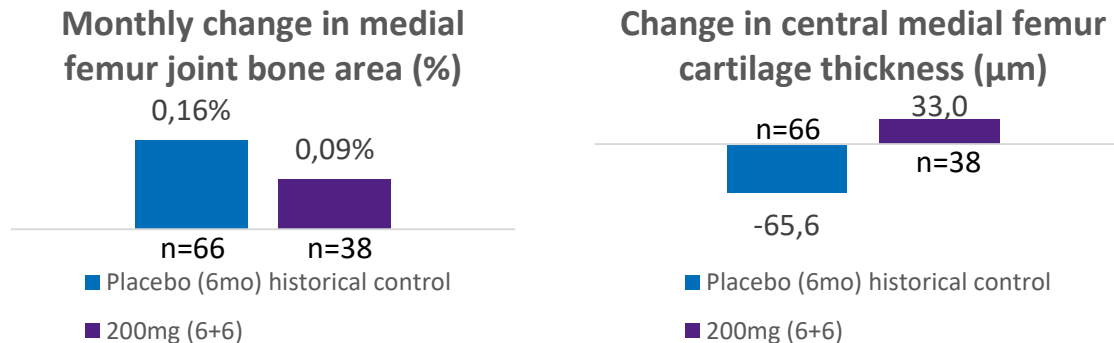


## Extension study continued positive outcomes

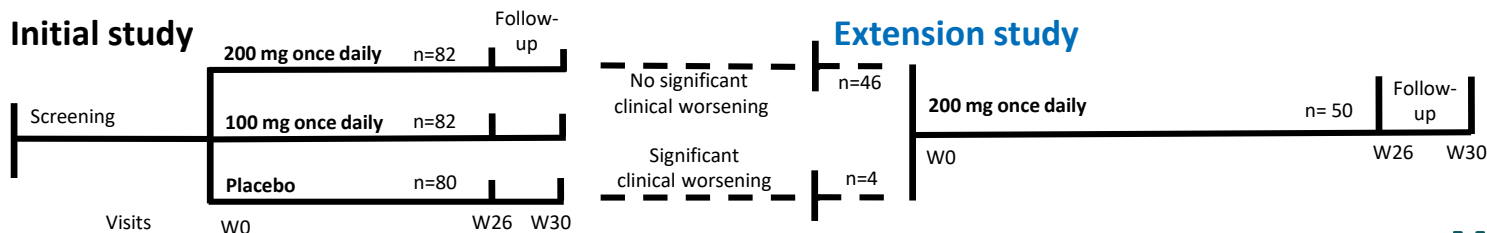
### Safety & tolerability profile supports late-stage development

- Primary endpoint: acceptable safety and tolerability profile with 6 months of additional treatment with 200 mg MIV-711, following the initial phase IIa study 6-month treatment period
- The overall safety and tolerability profile and the accumulated safety data support the advancement of MIV-711 into further studies as a disease-modifying osteoarthritis drug

### Continuing positive effect on joint structure and positive signals on clinical symptoms sustained with +6 months treatment



- Positive signals on patient reported pain and other clinical symptoms seen during the initial phase IIa study were sustained



# MIV-711: ORAL ONCE DAILY CATHEPSIN K INHIBITOR WITH FDA FAST TRACK STATUS FOR OA DISEASE MODIFICATION

## New US FDA guidelines in osteoarthritis support regulatory pathway for disease modification

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### FDA

#### **WITHDRAWN AUGUST 2018:**

1999 Draft FDA Guidance for Industry; *Clinical Development Programs for Drugs, Devices, and Biological Products Intended for the Treatment of Osteoarthritis (OA)*

- Defined Joint Space Narrowing, JSN (using x-ray) as the best accepted marker for structure.
- Specified that trials to demonstrate structure must last for at least one year, often longer due to imprecision of JSN measurement
- No mentioning of accelerated approval considerations

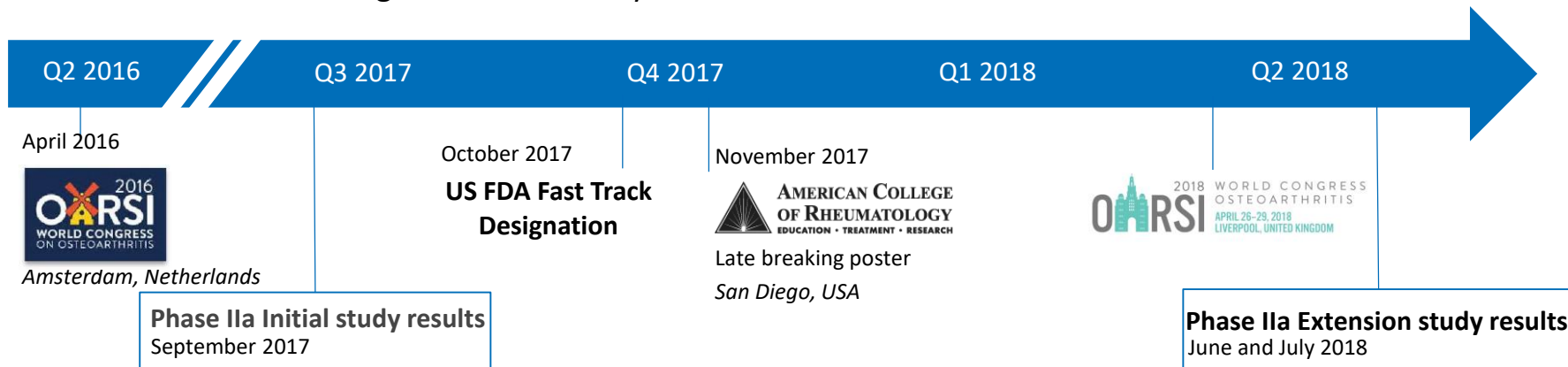
#### **PUBLISHED AUGUST 2018:**

Draft Guidance for Industry; *Osteoarthritis: Structural Endpoints for the Development of Drugs, Devices, and Biological Products for Treatment*

- In the absence of a proven DMOAD, guidance is restricted to a principal description of the Agency's updated view on the development of OA drugs
- Addresses structural endpoints only, the FDA's intention is to also develop a future guideline for drugs aimed to improve pain and functional impairment in OA
- Confirms their view that OA can be a serious disease and that treatments aimed at the underlying pathophysiology and structural progression are missing, and constitute an unmet medical need
- Specifically points to their strive to be able to accept structural endpoints as valid outcome measures for accelerated approval
  - There are several recognized challenges in achieving this goal, however the necessary confidence that an effect on structure will reliably predict an effect on clinical outcomes might be based on empirical evidence from randomized, controlled trials **and/or** based on a comprehensive understanding of the disease process and product mechanism of action
- The FDA welcomes efforts to establish confidence that measures of structural progression can reliably predict how patients function and feel, and expresses a willingness to work with all stakeholders on such programs

# MIV-711: Building towards partnership

- **Partnering discussions ongoing**
- **Strong patent position:** Expected patent life to ~2034, including extensions
- **US FDA Fast Track designation:** Granted by FDA October 2017



“The finding that MIV-711 slows the degenerative changes on both bone and cartilage in knees affected by OA is an enormously exciting finding”

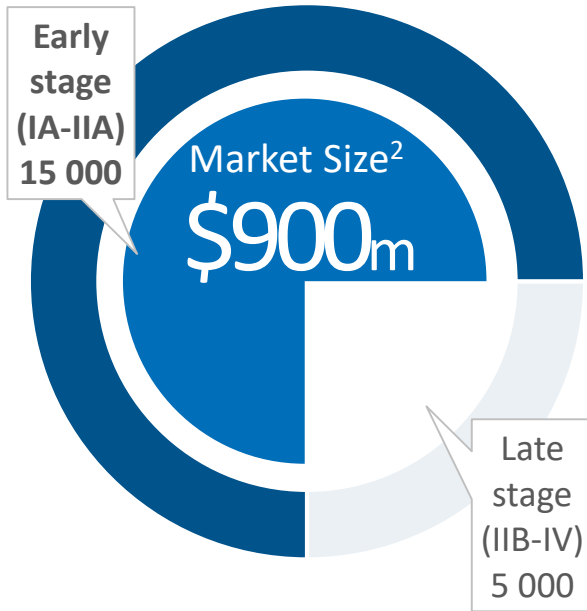
Professor Philip Conaghan, Professor of Musculoskeletal Medicine at the University of Leeds, UK, and MIV-711 lead investigator



# Remetinostat for early-stage CTCL

# CTCL: orphan blood cancer with significant market opportunity

## US CTCL patients<sup>1</sup>: orphan disease



### 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)

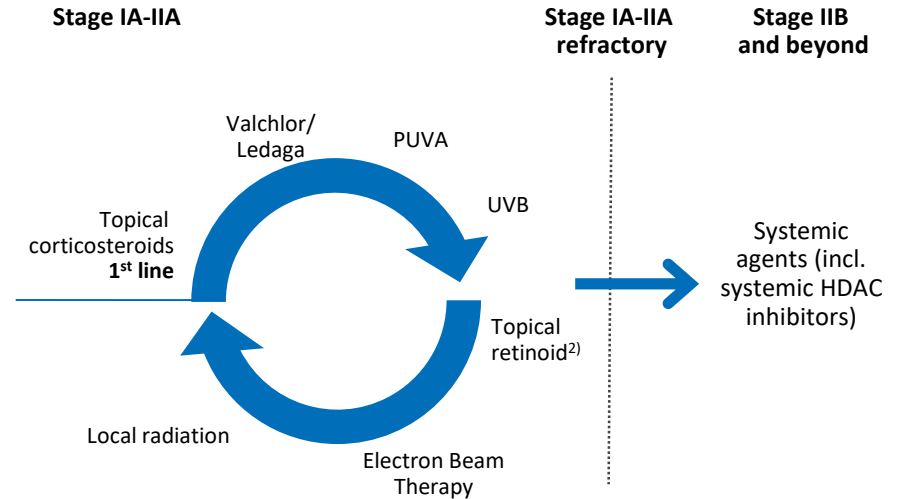
**Key unmet need:**  
balance of efficacy and long-term tolerability



# Patients & physicians need new treatments for early-stage CTCL

- Currently approved early-stage CTCL drugs lack sustained efficacy and/or tolerability and are highly irritating
- Valchlor/Ledaga is a topical alkylating agent (the active agent in mustard gas)
- No single treatment for long-term use
- At this early stage, physicians avoid using systemic drugs, including other HDAC inhibitors, due to the side effect profile

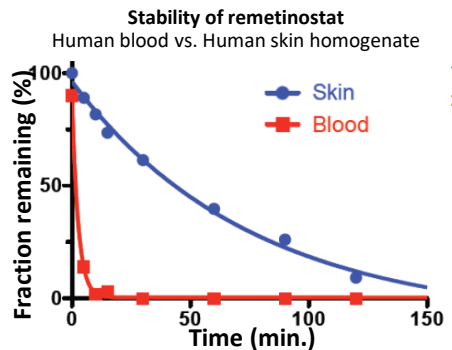
## Currently approved therapies by disease stage



# Remetinostat potential to meet patients' key unmet need

## Designed to act only where needed

- HDAC inhibitors<sup>1</sup> approved in late-stage CTCL patients but not in early-stage patients due to systemic toxicities
- Reteminostat's unique design and topical application provides activity in skin, but rapid degradation in blood



- Expected patent life to ~2034 (including extensions)
- US orphan drug designation

“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 M.D.*  
Stanford University Medical Center, USA

## Addresses key unmet need with positive Phase II data

### Effect on lesions & reduction of pruritus (itch)

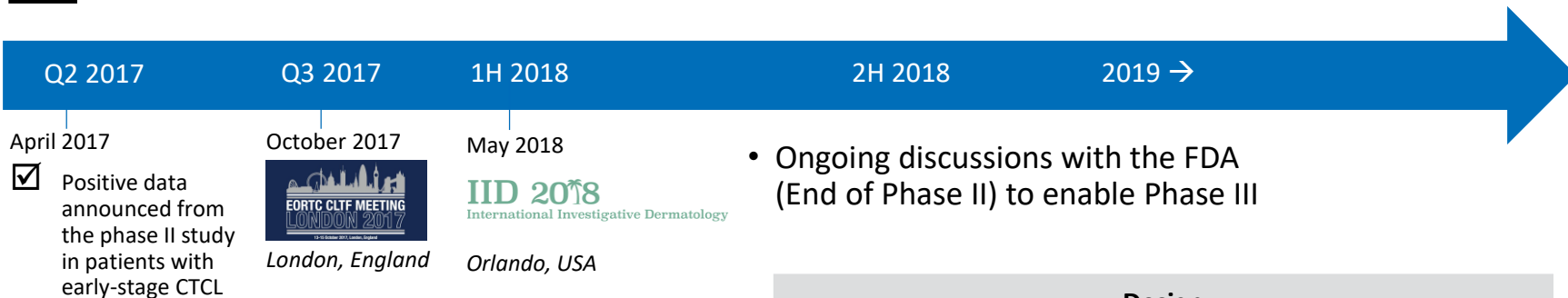
Dose	1% 1x/day n=20	0.5% 2x/day n=20	1% 2x/day n=20
Lesion responses <sup>1</sup>	20%	25%	<b>40%</b>
Patients with clinically significant pruritus <sup>2</sup>	8/20 (40%)	6/20 (30%)	<b>10/20 (50%)</b>
Pruritus responses	37.5%	50%	<b>80%</b>

### Highly tolerable with no systemic side effects

- Even dose distribution of AEs, mostly grade 1 or 2
- No HDAC inhibitor-associated systemic adverse events
- Median time on treatment: 332 days (1% 2x/day dose)

M Duvic *et al.*, EORTC Cutaneous Lymphoma Task Force Meeting (2017), Abstract O55

## Planned Phase III clinical development for early-stage CTCL



**“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 combinatorial approaches in CTCL.”**

*Pierluigi Porcu, M.D.  
Jefferson University Hospital, USA*

- Ongoing discussions with the FDA (End of Phase II) to enable Phase III

### Design

One Phase III study expected to be sufficient for NDA

- Past approvals in CTCL were based on pivotal clinical studies involving  $\leq 260$  patients
- Focus on treatment-experienced patients where the medical need is high

### Costs

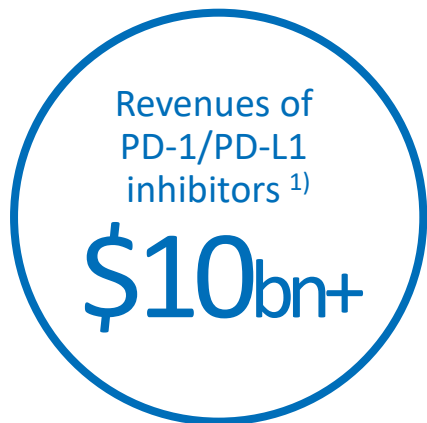
- ~\$50m (SEK 400m) expected clinical costs to NDA submission over a ~3 year period (incl. Phase III study and third party milestones)



# Birinapant for solid tumors

# Despite immuno-oncology breakthroughs patients have unmet needs

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



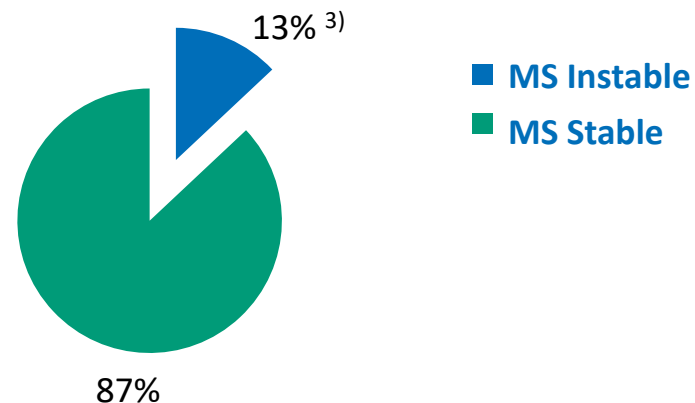
**< 1/2**  
of patients derive  
meaningful clinical  
benefit in approved  
indications

**0-5%**  
ORR in other indications  
such as MSS colorectal  
cancer

## Birinapant may offer access to larger markets by increasing benefit

### One example: colorectal cancer

- Keytruda<sup>®</sup> and other PD1 inhibitors not effective in the largest colorectal cancer population (MSStable)



# Linking targeted therapy with immuno-oncology

## Uniquely potent molecule against a novel target

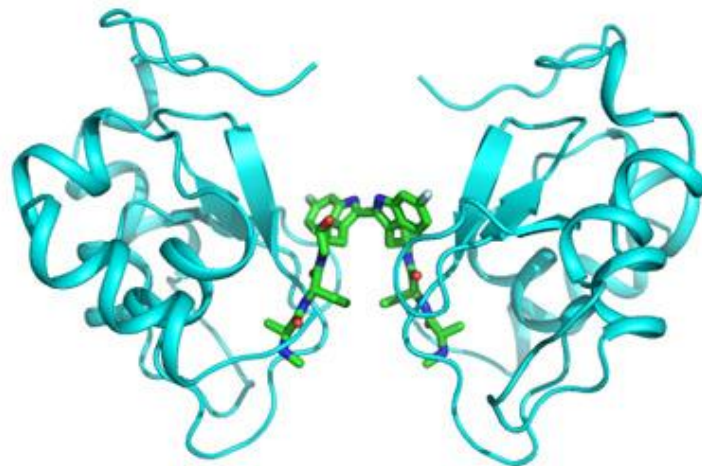
- Bivalent SMAC (second mitochondrial-derived activator of caspases) mimetic
- Targeting of cIAPs results in dual action on T-cells and tumor cells

## Strong rationale for use in combinations

- Synergistic with anti-PD1 and likely other IO pathways
- Efficacy observed in both hematological and solid tumor models
- Phase I/II study in combination with Merck's Keytruda® underway

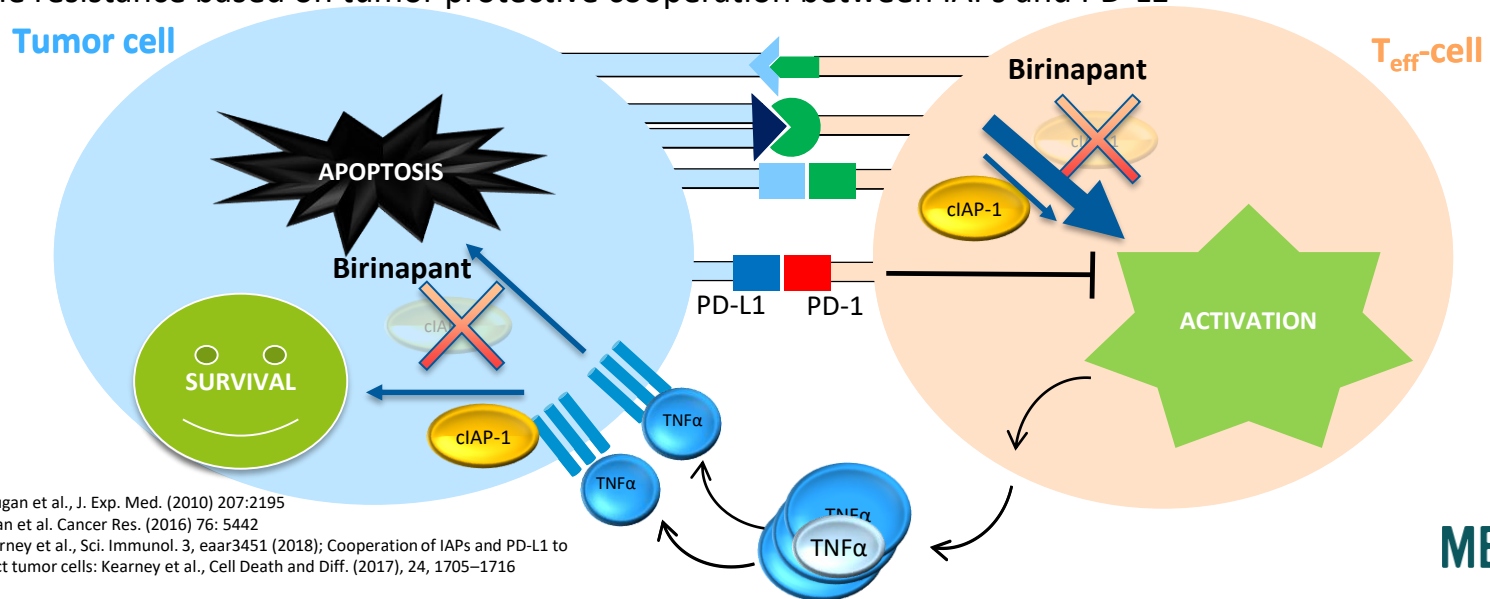
## Blockbuster potential and strong patent position

- Expected patent life to ~2034, including extensions



# Dual action enhances cancer cell death

- Targeting of cIAPs results in dual action on T-cells and tumor cells
  - Enhances pro-apoptotic, and suppresses pro-survival, signaling downstream of TNF- $\alpha$
  - Augments human T cell responses to physiologically relevant stimuli<sup>1</sup>
- Potential to enhance efficacy: combining birinapant with other pro-apoptotic signaling treatments, especially those known to enhance TNF- $\alpha$  expression, e.g. radiotherapy<sup>2</sup>
- Potential to overcome resistance mechanisms: combining birinapant and PD-1/PD-L1 targeting agents may overcome resistance based on tumor protective cooperation between IAPs and PD-L1<sup>3</sup>

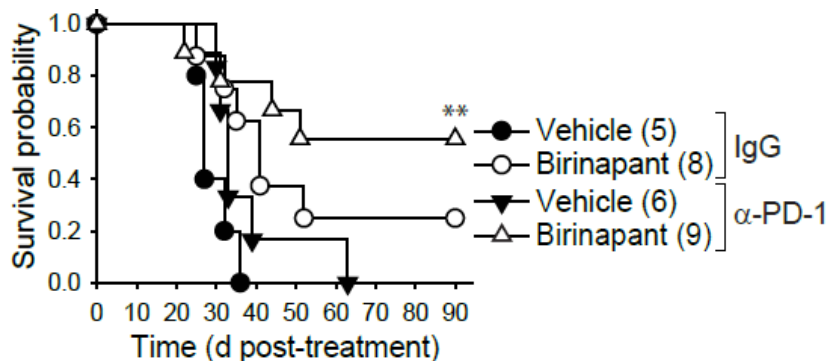




## Potential to enhance patient response with immune-oncology therapies

### Strong rationale for combination with Keytruda®

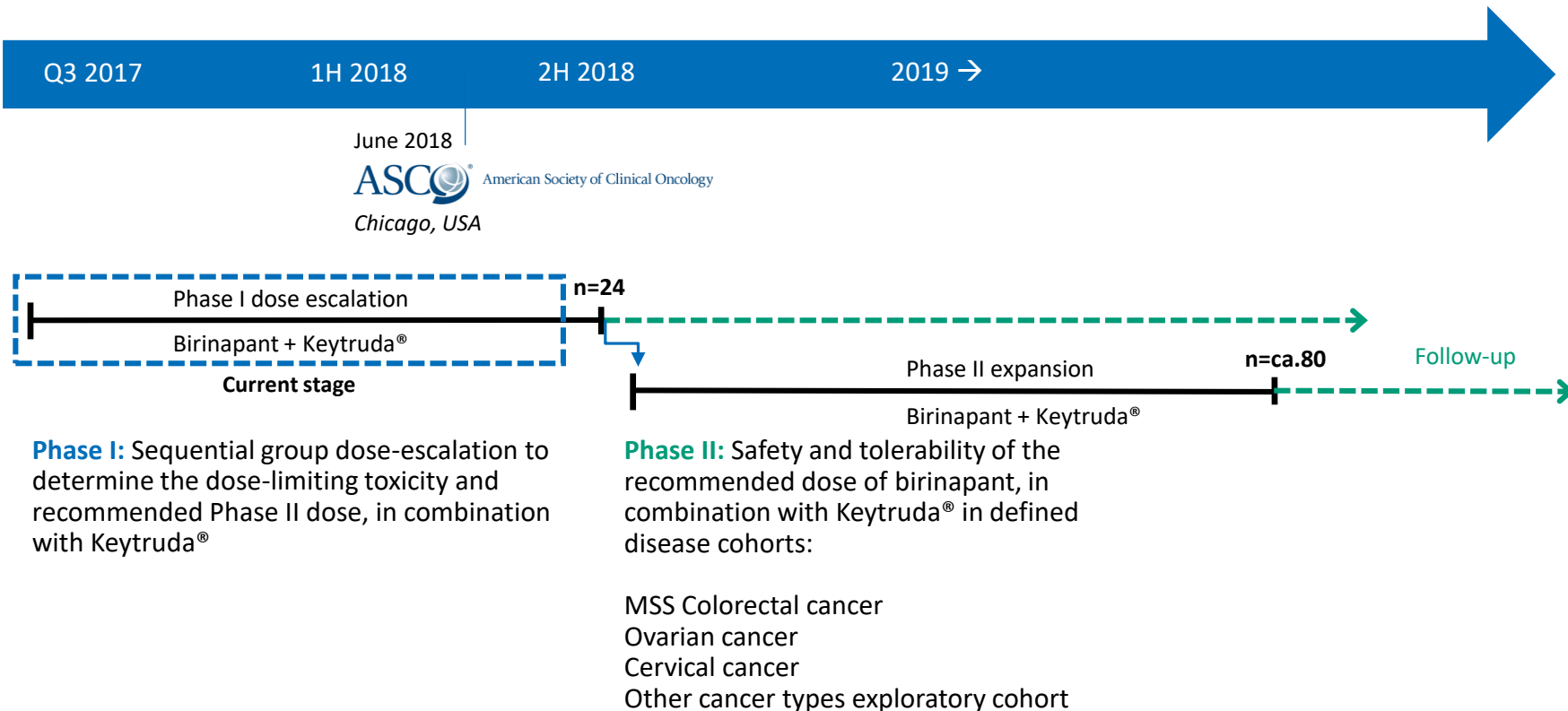
- Birinapant/anti-PD1 mAb combo showed enhanced activity in preclinical models<sup>1</sup> compared to either agent alone



### Phase I/II study underway in collaboration with MERCK

- Development collaboration for the Phase I/II study in solid tumors
- 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 data

# Birinapant/Keytruda® combination: Phase I/II Study underway





# MIV-818 for liver cancers

# HCC is 3<sup>rd</sup> leading cause of cancer-related death worldwide

## Hepatocellular Carcinoma

- Orphan disease in Western markets, but one of fastest growing and most deadly cancers in USA
- Increasing incidence of NASH is becoming the driver of HCC in the west, replacing chronic hepatitis C
- High incidence in China and other east Asian countries
- Genetically heterogeneous leading to limited effect of molecularly targeted therapies

## Patients with advanced HCC are in need of new treatments:

### 1<sup>st</sup> line treatment

#### Multikinase Inhibitors

- Sorafenib
- Lenvatinib
- ~3 month survival benefit



### 2<sup>nd</sup> Line Options

#### (Multi)kinase Inhibitors

- Regorafenib
- *Cabozantinib*
- *Ramucirumab (AFP<sup>hi</sup> patients only)*
- Incremental survival benefit

#### PD-1 antagonists

- Nivolumab
- 15-20% ORR
- Survival benefit yet to be defined

# Potential to improve efficacy and safety for patients with liver cancers

## Improve a nucleoside with Medivir prodrug technology

### Troxacitabine

(nucleoside)

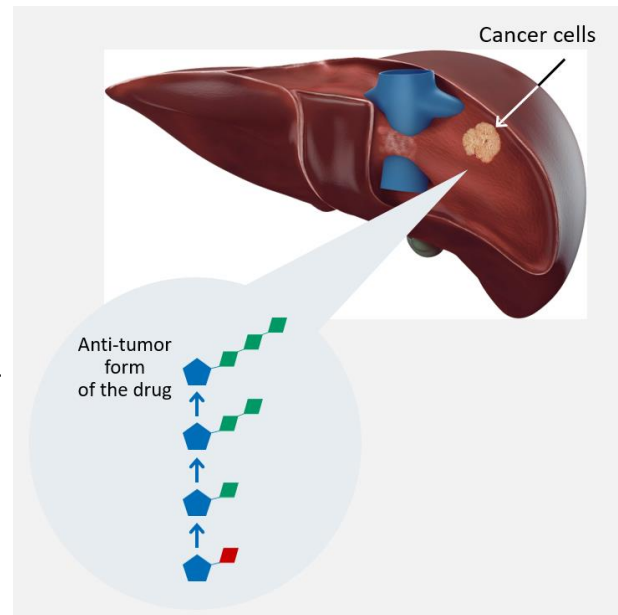
- **Active** in preclinical cancer models and in clinic
- Failed in clinic due to systemic dose-limiting **toxicities**

Medivir  
prodrug  
technology

### MIV-818

(liver-targeted nucleotide prodrug)

- **Enhanced activity** 10x more potent against HCC cell lines than parent troxacitabine
- **Selectivity for cancer** Active on HCC cells while sparing non-cancerous hepatocytes
- **Improved delivery to the liver** >100-fold relative to systemic exposure of troxacitabine
- **Synergy with multikinase inhibitors** (e.g. sorafenib)
- **Market exclusivity** with full new chemical entity patent protection



# MIV-818: Gearing up for Phase I study start





# Outlook

# Cash position and shareholder base

## CASH POSITION



## THE SHARE





# Key milestones throughout the year

## Track record of delivery

## Coming events

JAN – JUL 2018

2H 2018 →

✓ **Completed**  
MIV-818 (liver cancer) IND-enabling preclinical studies

MIV-818  
  
Geneva, Switzerland  
March 2018

MIV-818  
 American Association for Cancer Research  
Chicago, USA  
April 2018

MIV-711  
 2018 WORLD CONGRESS ON OSTEOARTHRITIS  
LIVERPOOL, UNITED KINGDOM

Remetinostat  
 International Investigative Dermatology  
Orlando, USA  
May 2018

Birinapant  
 American Society of Clinical Oncology  
Chicago, USA  
June 2018

✓ **Completed**  
MIV-711 Phase IIa osteoarthritis extension study

- Completion of the dose escalation portion of the birinapant Phase I/II study in combination with Keytruda® (2H 2018)
- Start of MIV-818 (HCC nuc) Phase I study (2H 2018)
- Start of Phase III CTCL study remetinostat (2019)

# Recent and upcoming events and financial reports

## Recent events

Date	Event
19 Apr 2018	Kempen Life Sciences Conference, Amsterdam, Netherlands
5-8 Jun 2018	Jefferies Global Healthcare Conference, New York, US
19-20 Jun 2018	Citi European Healthcare Conference, London, UK
19 Jul 2018	European Biotech Investor Day, New York, US
25 Jul 2018	Interim Report January - June 2018
16 Aug 2018	Solebury Trout Hamptons CEO Roundtable, Bridgehampton, US
29-30 Aug 2018	LSX Nordic Congress, Stockholm, Sweden
10-12 Sep 2018	Nordic Life Science Days, Stockholm, Sweden

## Upcoming events

Date	Event
19-24 Oct 2018	American College of Rheumatology, Chicago, US
26 Oct 2018	Interim Report January - September 2018
5-7 Nov 2018	BIO Europe Copenhagen, Denmark
13-16 Nov 2018	EORTC-NCI-AACR Symposium Dublin, Ireland

# Why Medivir?

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**For more information:**

- Nasdaq Stockholm, ticker: MVIR
- [www.medivir.com](http://www.medivir.com)

- Track record of delivery

3 new drugs from research  
into development in 2 years

2 products from  
idea to market

>20 global partnerships,  
multiple repeat partners

- Strong pipeline from discovery through clinical stages focused in oncology
- Upcoming catalysts with newsflow in multiple projects
- Near-term opportunities for revenues from partnerships



# Appendix

## Positive Phase II data: Confirmed efficacy on skin lesions and reduced itching

### Study design

- 60 patients with stage IA-IIA MF were randomized into three dose arms and treated for up to 12 months
- Index lesions were identified at baseline and assessed throughout the study
- The primary end-point was the proportion of patients with a complete or partial confirmed response assessed using the Composite Assessment of Index Lesion Severity (CAILS)

### Results

- Dose response: CAILS ORR & pruritus VAS responses
- Patients in the highest dose group had the highest proportion of confirmed responses (40%), including 1 complete response
- A positive effect was also seen on the severity of pruritus, a secondary objective in the trial

Dose	Once Daily	Twice Daily	
	1% (n=20)	0.5% (n=20)	1% (n=20)
<b>Lesion Outcomes</b>			
CAILS Confirmed Overall Response Rate (ORR)	4 (20%)	5 (25%)	8 (40%)
Median Duration of CAILS Confirmed Response <sup>1</sup>	2 months	3 months	7 months
<b>Pruritus Outcome</b>			
Patients with clinically significant pruritus at baseline (VAS ≥30 mm at baseline)	8/20 (40%)	6/20 (30%)	10/20 (50%)
Confirmed response in patients with clinically significant pruritus at baseline	3/8 (37.5%)	3/6 (50%)	8/10 (80%)

## Well tolerated without signs of systemic adverse events

### Results

- Across all the dose groups, remetinostat was well-tolerated without signs of systemic adverse effects, including those associated with systemic HDAC inhibitors
- A balanced safety profile across all three doses
- Minimal systemic exposure, even at the top dose
- Most patients remained on study for the maximum possible duration
  - Median time on treatment: 332 days (1% 2x/day dose)

Treatment-related Adverse Events seen in ≥1 Patients <sup>1</sup>	Once daily		Twice daily	
	1%	0.5%	1%	1%
Any Adverse Event	11	10	11	11
Pruritus	5	3	1	1
Any Other Skin <sup>2</sup>	9	10	11	11
Infections	3	1	0	0
Skin papilloma	0	0	1	1

## Positive trends across all Pain and other Patient Reported Outcomes

### **MIV-711 showed consistent tendency to improve patient-reported symptoms, including pain**

- A tendency was observed favoring both the 100mg and 200mg groups for patient-reported pain on the NRS scale (the primary endpoint), however did not reach statistical significance, in the initial Phase IIa study
- This tendency was observed consistently across other patient-reported symptoms such as:
  - Daily reporting of pain in E-diaries
  - Measures of pain associated with the daily activities
  - Satisfaction with the function of the diseased knee
- The Phase IIa extension study showed a sustained effect on pain and other clinical symptoms with additional 6 months of MIV-711
- The findings on pain and other clinical symptoms from these studies will enable the design of future, longer, studies aimed at demonstrating the effects of MIV-711 on both joint structure degeneration and pain and other clinical symptoms



# Drug discovery expertise: Nucleoside Prodrugs & Protease Inhibitors

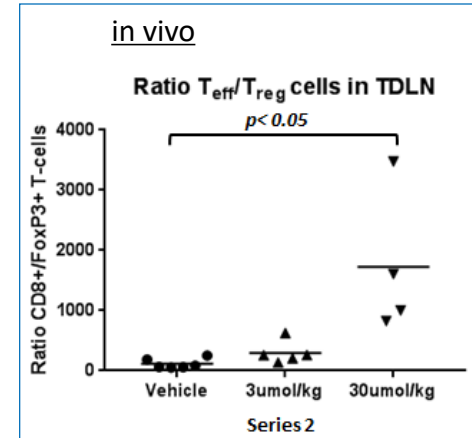
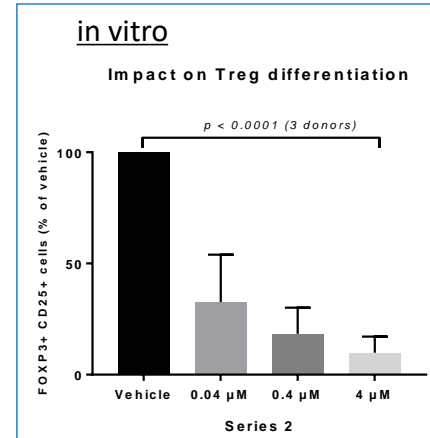
## Leukotide nucleotide prodrug for AML

- Aim to develop better tolerated and more effective agent to improve outcomes for patients with acute myeloid leukemia (AML) and other hematological cancers
- AML is a relatively rare cancer, with around 21,000 cases expected in the US in 2017. The prognosis is poor for many AML patients, especially those who are elderly, because they are often unable to tolerate the intensive treatments currently used to cure the disease.
- Five-year survival of patients in the US diagnosed with AML was 27% in the period 2007–2013

Market exclusivity with full NCE patent protection

## TRIP: T<sub>reg</sub> inhibitor project for immuno-oncology

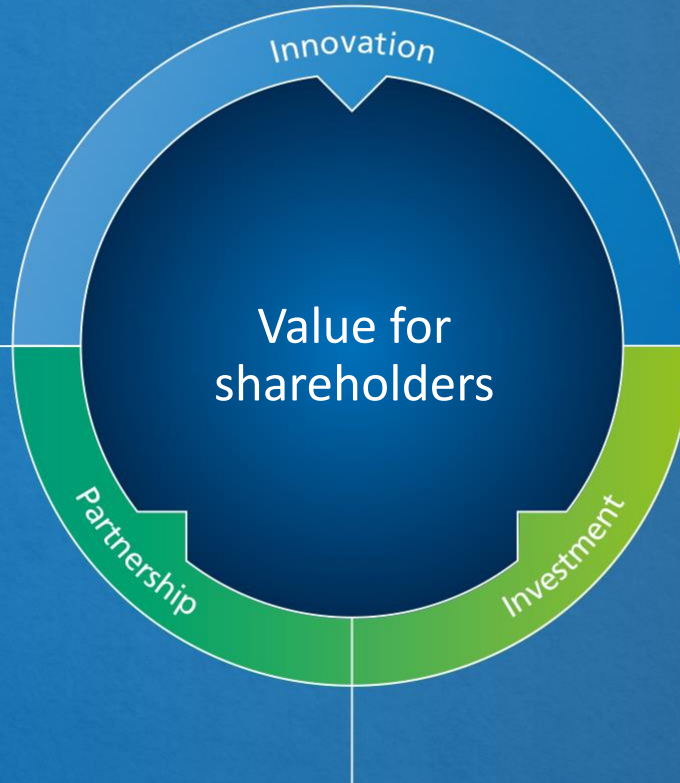
- Novel biological target enabling selective suppression of T<sub>reg</sub> cells
- IP filed on the target itself and 2 classes of small molecules
- Highly potent compounds (K<sub>i</sub> values <15 nM against the molecular target)
- Increase of T<sub>eff</sub>/T<sub>reg</sub> cell ratio demonstrated:





# Track record of delivery

- Medivir was founded 1988
- Public company since 1996



3 candidate drugs into development in 2 years

- MIV-818 for liver cancer
- MIV-323 for RSV
- MIV-802 for HCV

>20 global partnerships,  
multiple repeat partners

>\$400m<sup>1</sup>

2 products from idea to market

- Xerclear/Zoviduo for labial herpes
- Olysio (simeprevir) for HCV, peak sales \$2.3b worldwide

# Transformation into an oncology-focused biopharma company

## <2017 – THE NEW MEDIVIR EMERGES

- Sold BioPhausia (established portfolio of branded generics)
- Transitioned commercial products in the Nordics to partners
- Delivered first oncology development project from in-house research
- Reorganized to increase focus and agility in R&D
- Acquired two clinical stage oncology projects:
  - Remetinostat (Phase II for CTCL)
  - Birinapant (Phase I/II solid tumors)



## >2017 - DELIVERING ON ONCOLOGY PIPELINE

- Remetinostat (early-stage CTCL): delivered positive Phase II topline efficacy & safety from 12 month study
- Birinapant (solid tumors): started Phase I/II combination study with Keytruda
- MIV-818 (liver cancer): completed IND-enabling GLP safety studies
- New cancer project Leukotide based on in-house discovery



# 2017 Accomplishments

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- ✓ MIV-711 groundbreaking phase IIa data announced and presented as late breaker at ACR
- ✓ MIV-711 Fast Track designation from US FDA
- ✓ MIV-711 extension study fully enrolled
- ✓ Remetinostat Phase II data announced and presented at EORTC Cutaneous Lymphoma Task Force meeting
- ✓ Birinapant/Keytruda® Phase I/II study started
- ✓ MIV-802 for HCV in Greater China licensed to Ascleptis
- ✓ Beta lactamase research program licensed to AMRC
- ✓ Distribution of 858 MSEK to shareholders from sale of BioPhausia
- ✓ Completion of reorganization to reduce costs
- ✓ New management team in place, including new CEO



# Financial Summary

## Summary of the Group's figures

(SEK m)

	Q2		Q1 - Q2		Full Year	
	2018	2017	2018	2017	2017	2016
Net turnover	2,8	9,5	7,3	27,3	36,6	93,0
EBITDA	-89,9	-90,9	-163,0	-171,8	-342,6	-300,6
Basic earnings per share, SEK	-3,88	-3,91	-6,96	-7,50	-16,40	-10,94
Net worth per share, SEK	20,33	34,41	20,33	34,41	25,31	64,38
Cash flow from operating activities	-82,7	-82,1	-169,7	-206,0	-358,5	-182,3
Cash and cash equivalents at period end	438,6	624,2	438,6	624,2	467,8	1 698,5

- Net turnover from royalty revenue
- Cost and cash spend is driven by our clinical projects and research portfolio
- Improved cost base post full realization of the reorganization announced in fall 2016

# Board of directors



**ANNA MALM BERNSTEN**, Chairman, director since 2006

- **Education:** M.Sc. in Engineering
- **Background:** M.Sc. in Engineering with an extensive knowledge of the life sciences sector. Runs own consultancy firm operating in the fields of leadership strategy and business development. Experience of senior positions with, amongst others, GE Healthcare Life Sciences, Pharmacia, Assa Abloy, Medivir and Baxter Medical. Former President & CEO of Carmeda AB
- **Other assignments:** Chairman of the Boards of CEBA AB and Oatly AB. Member of the Boards of Cellavision, Pägengruppen and Probi



**ULI HACKSELL** Director since 2018

- **Education:** PhD at Uppsala University
- **Background:** Senior positions in major pharmaceutical and biotech companies for over 25 years and more than 10 years' experience as the CEO of publicly owned companies. As the CEO of ACADIA Pharmaceuticals from 2000–2015, he led its development from a private start-up to a public, multibillion dollar company. In the 1990s, he held senior positions at Astra AB, prior to which he was a Professor of Organic Chemistry at Uppsala University.
- **Other assignments:** Chairman of the Board of Cerecor Inc., and Member of the Boards of InDex Pharmaceuticals AB, Beactica AB and Uppsala University.



**ANDERS R HALLBERG**, Director since 2012

- **Education:** Professor of Medicinal Chemistry at Uppsala University's Faculty of Pharmacy
- **Background:** Held a number of positions as a scientific advisor at AstraZeneca and smaller pharmaceutical companies between 1990 and 2006. Prior to this, he was the Head of the Medicinal Chemistry Department at Astra in Lund. Vice-Chancellor of Uppsala University between 2006 and 2011. He has published over 270 scientific articles, a large number of which are on the subject of pharmaceuticals for the treatment of infectious diseases, and co-inventor of a large number of granted patents. Member of the Royal Swedish Academy of Sciences, and the Royal Swedish Academy of Engineering Sciences. Awarded honorary doctorates in Sweden and other countries
- **Other assignments:** Member of the Boards of foundations and universities.



**LENNART HANSSON** Director since 2018

- **Education:** PhD in Genetics from Umeå University
- **Background:** Extensive experience of pharmaceutical and commercial development in senior positions with both biotech and pharmaceutical companies, such as KabiGen AB, Symbicom AB, AstraZeneca, and Biovitrum AB, and as CEO of Arexis AB. Responsible for Industrifonden's life science operations from 2008 to 2016, and currently working as a senior advisor to the fund on a consultancy basis. He has held seats on the Boards of over 30 companies and is also a co-founder of two pharmaceutical development companies.
- **Other assignments:** Member of the Boards of InDex Pharmaceuticals AB, Calliditas Therapeutics AB and Cinclus Pharma Holding AB. Chairman of the Boards of Ignitus AB and Sixera Pharma AB.



**BENGT JULANDER**, Director since 2017

- **Education:** Pharmacist. Has worked in the pharmaceutical industry since 1978
- **Background:** CEO of Linc AB, which invests in life sciences. Since 1990, primarily active as an investor in and a Member of the Boards of pharmaceutical development companies. Experience of developing and commercialising products
- **Other assignments:** Member of the Boards of Linc AB, Livland Skog AB, Calliditas Therapeutics AB, Proequo AB, Sedana Medical AB, Stille AB and Swevet AB, and a number of smaller companies.



**HELENA LEVANDER**, Director since 2015

- **Education:** B.Sc. in Economics and Business Administration from the Stockholm School of Economics
- **Background:** Extensive experience of the financial and equity markets and of corporate governance issues. Previously employed by Neonet, Odin Förvaltning, Nordea Asset Management and SEB Asset Management, amongst others
- **Other assignments:** Founder and now Chairman of the Board of Nordic Investor Services AB. Member of the Boards of Concordia Maritime AB, Recipharm AB and Stendörren Fastigheter.



**BENGT WESTERMARK**, Director since 2017

- **Education:** Professor of Tumour Biology at Uppsala University, the Faculty of Medicine, since 1986
- **Background:** Dean of the Faculty of Medicine at Uppsala University, 1996-2002, and Vice-Rector of Medicine and Pharmacy, 1999-2002. Chairman of the research board of the Swedish Cancer Society, 2003-2013. He has published over 300 papers in scientific journals, primarily on the mechanisms governing the uncontrolled growth of cancer cells. Member of the Royal Swedish Academy of Sciences, the European Molecular Biology Organisation, and the European Academy of Cancer Sciences. He has received a number of prizes and awards for his research and has been cited over 25,000 times by other researchers
- **Other assignments:** Member of the Board of Hamlet Pharma AB and several advisory groups for medical research financing

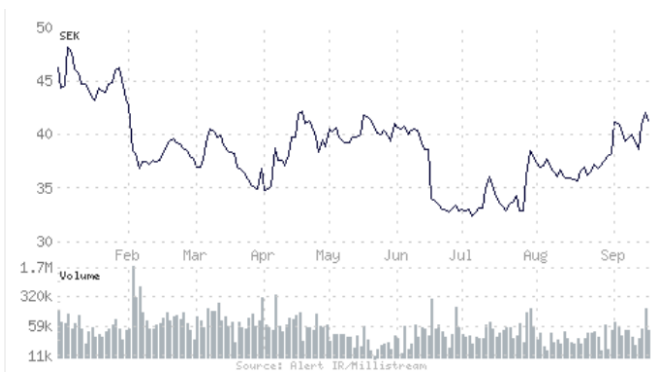
Board of directors with extensive scientific and operational experience of developing and leading businesses within biotech and pharma

# The share and shareholder base

## The Medivir share

- Single class of shares (B shares) outstanding totaling 24,287,818
- Traded on Nasdaq Stockholm Mid Cap, under the ticker MVIR B (ISIN: SE0000273294)
- Current market capitalization of ~SEK 1B (~USD 110m)<sup>1</sup>

YEAR TO DATE SHARE PRICE DEVELOPMENT



## Shareholder base as of 31 August 2018

Owners	Class B Shares	% of Capital
Nordea Investment Funds	1 988 571	8.2
MSIL IPB client account	1 520 416	6.3
Avanza Pension	1 112 323	4.6
Gladiator	1 050 000	4.3
Linc AB	958 283	4.0
UNIONEN	897 970	3.7
Hans Sköld	751 691	3.1
Credit Suisse SA	703 925	2.9
Danica Pension	611 324	2.5
Ålandsbanken	609 551	2.5
Nordnet Pensionsförsäkring AB	434 841	1.8
Bo Öberg	347 744	1.4
SEB life international Assurance	320,000	1.3
Rolf Kraft	259 625	1.1
Nils Gunnar Johansson	235 424	1.1
<b>Total 15 largest shareholders</b>	<b>11 801 688</b>	<b>48.6</b>
Total other shareholders	12 486 130	51.4
<b>Total</b>	<b>24,287,818</b>	<b>100</b>