

The background of the slide is a blurred photograph of a laboratory setting. In the center, there is a clear glass beaker containing a liquid, with the number '20' visible on its side. To the left, a portion of a laboratory scale is visible. The overall scene is brightly lit, creating a clean and professional atmosphere.

# Medivir

*A collaborative and agile pharmaceutical company with an R&D focus on infectious diseases and a leading position in hepatitis C*

**Q2-2013 Conference Call 22 August 2013**

**Presenting team**

**Maris Hartmanis, CEO**  
**Charlotte Edenius, EVP Development**  
**Richard Bethell, EVP Discovery Research**  
**Rein Piir, EVP Corporate Affairs & IR**



## **Reflections on Q2 2013**

**Maris Hartmanis, CEO**

# We streamlined operations and sharpened our focus in Q2, 2013

## Overall operations

- Our Rx pharmaceutical portfolio was affected by typical seasonal variations but continued to show stability
- To increase focus in our Nordic pharmaceuticals business we divested our parallel trading franchise, Cross Pharma, which strengthened our financial position
- Henrik Krook was appointed EVP Commercial and joined Medivir on August 19

## Simeprevir

- Simeprevir was granted priority Review by the FDA. The Advisory Committee meeting is confirmed for October 24
- A Marketing Authorization Application for the treatment of patients with genotype 1 and genotype 4 chronic hepatitis C was filed with the European Medicines Agency (EMA)
- Positive efficacy and safety data were presented from four Japanese phase III studies
- All interferon-free combination trials with simeprevir continue to make progress. The phase II trial (HELIX-1) with simeprevir and samatasvir (IDX719) was initiated

## R&D

- We refocused the internal HCV efforts and are exploring the nucleotide-based polymerase inhibitors following a discontinuation of our NS5A program
- The Cathepsin K phase I trial was completed
- The Cathepsin S project is moving towards CD selection during H2, 2013

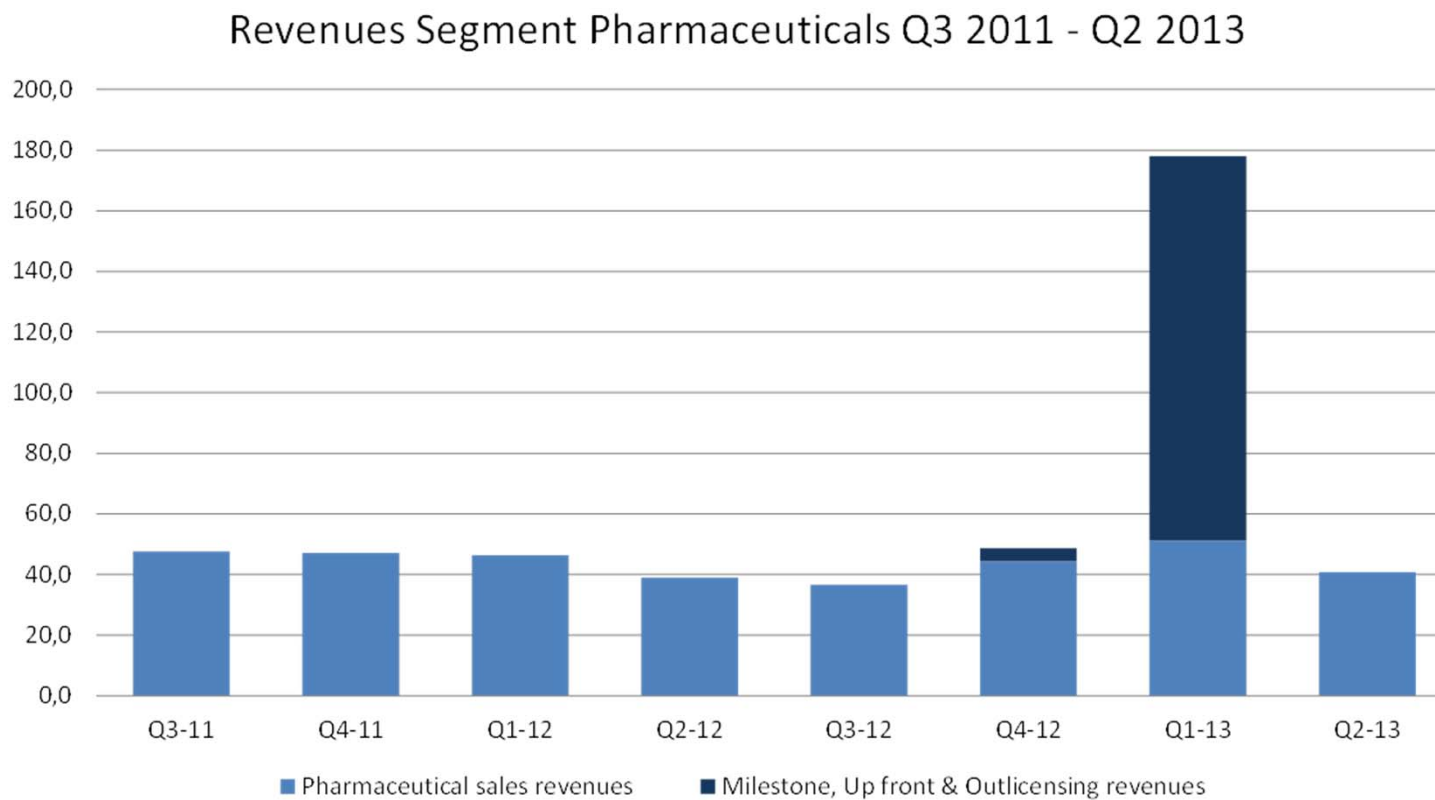
## Consolidated profit performance

(SEK m)	2013 Apr-Jun	2012 Apr-Jun	2012 Jan-Dec
Net turnover	40.7	39.0	170.6
Gross profit	23.5	24.3	109.3
EBITDA	-46.9	-47.7	-165.3
EBIT	-62.0	-56.4	-201.3
Profit/loss before tax	-62.1	-57.0	-210.8
Profit/loss after tax	-63.7	-65.4	-234.1

## Net turnover breakdown

(SEK m)	2013 Apr-Jun	2012 Apr-Jun	2012 Jan-Dec
Outlicensing and partnership agreements/Non-recurrent payments	-	-	4.4
Pharmaceutical sales	40.7	39.0	164.9
Other services	-	-	1.3
<b>Total</b>	<b>40.7</b>	<b>39.0</b>	<b>170.6</b>

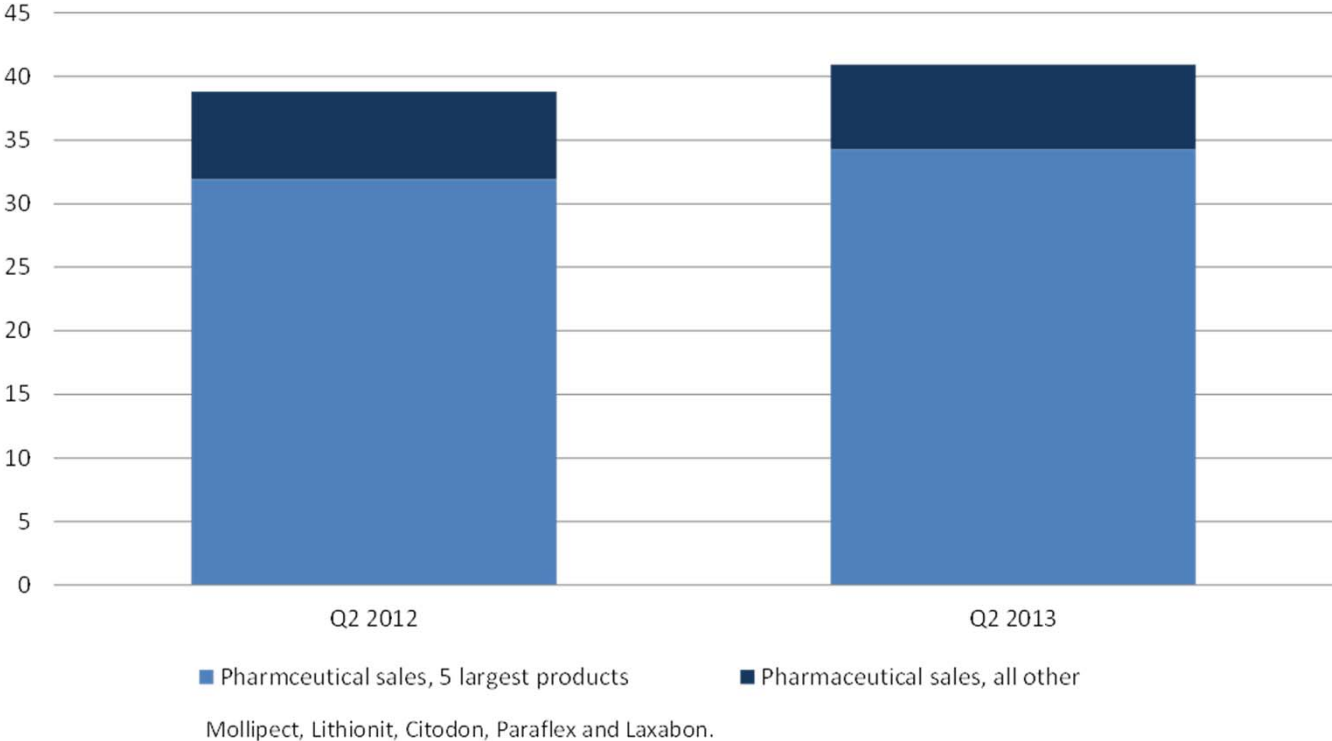
## Quarterly sales trend in Pharmaceuticals, SEK m\*



\*The BioPhausia corporate group is included from May 31, 2011.

# Segment Pharmaceuticals, sales Q2 2012 vs. Q2 2013

Pharmaceutical sales revenues Segment Pharmaceuticals  
Q2 2012 vs. Q2 2013



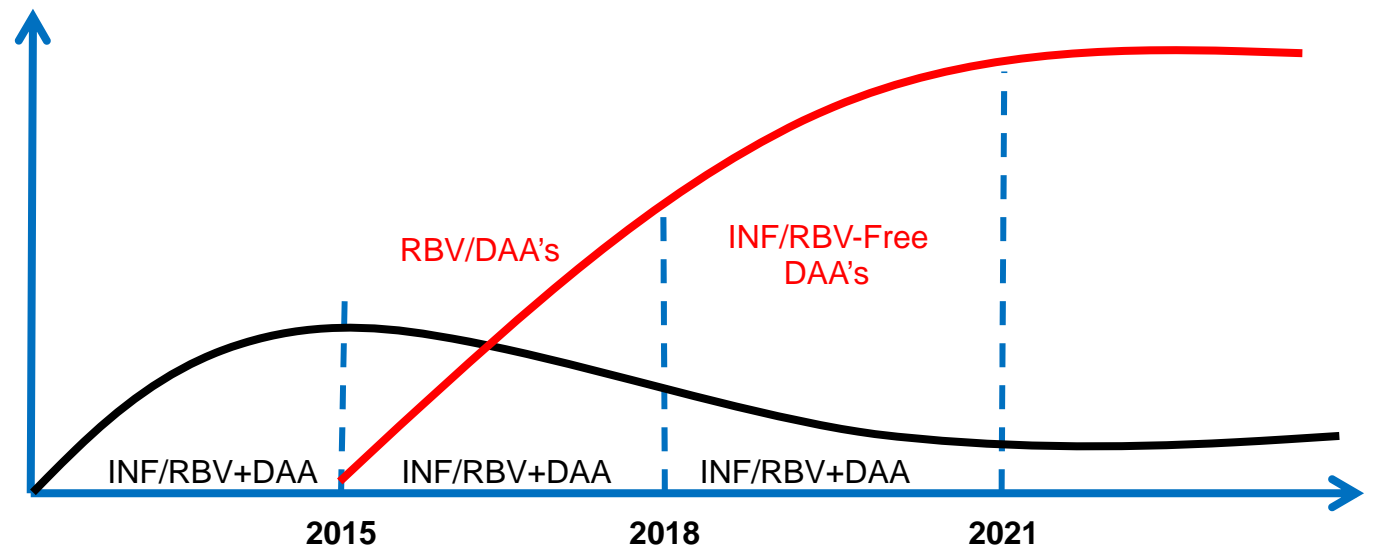
# Long term goal – eradication of hepatitis C



The evolution in treating hepatitis C will expand the market value, number of patients treated and regions over the next 10-15 years

Regional, patient and pricing differences will drive the segments in the future

Value/Patients treated









## **Key R&D highlights from Q2 2013**

**Charlotte Edenius, EVP Development**

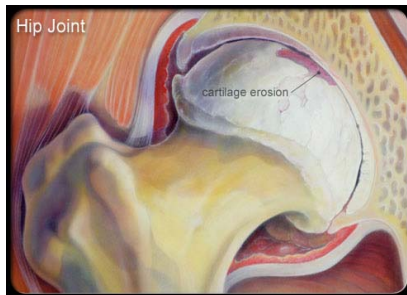
# Pipeline status

Field	Project	Partner	Preclinical phase		Clinical phase			Market	
			Re-search	Deve-lopment	Phase I	Phase IIa	Phase IIb		Phase III
<b>Anivirals</b>									
Labial herpes	Xerclear (Zoviduo, Zovirax Duo)	GlaxoSmithKline (GSK)							
Hepatitis C	Simeprevir (TMC435), NS3 protease inhibitor	Janssen Pharmaceuticals							
Hepatitis B	Lagociclovir valactate (MIV-210)	Daewoong							
Hepatitis C	NS5B nucleotide-based polymerase inhibitor	Janssen Pharmaceuticals							
Hepatitis C	NS5B nucleotide-based polymerase inhibitor								
HIV	Protease inhibitor	Janssen Pharmaceuticals							
<b>Other indications</b>									
Bone related disorders	Cathepsin K inhibitor								
Neuropathic pain	Cathepsin S inhibitor								

# MIV-711 - A cathepsin K inhibitor for bone related disorders, including osteoarthritis

## Mechanism of action

- Cathepsin K dissolves collagen I in bone and collagen II in cartilage
- Genetic, animal and human data shows that cathepsin K inhibition improves bone quality

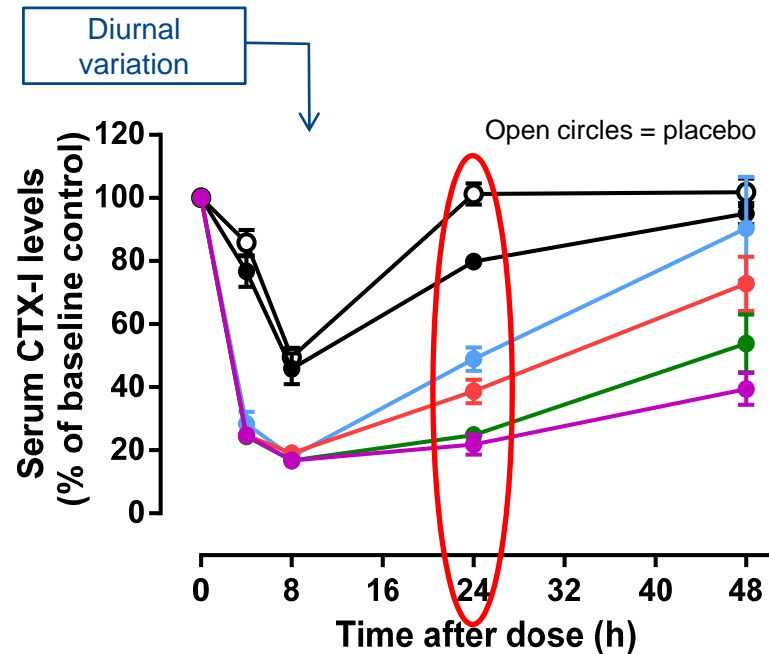
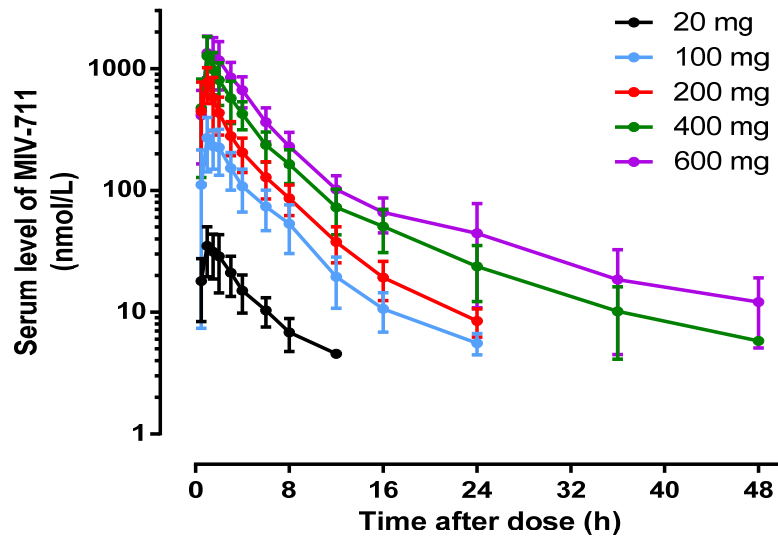


## Phase I study recently finished

- Placebo controlled, double-blind study in healthy subjects
- Ascending single and multiple (7 - 28 days) once daily dosing
- Biomarkers for bone and cartilage turnover (CTX-I, CTX-II etc)
- Single dose data presented recently
- Business development activities initiated aiming for partnership for further clinical development

**MIV-711 - a phase I clinical candidate efficacious in preclinical models of osteoarthritis and osteoporosis**

# Pharmacokinetics and effect on CTX-1, a bone resorption biomarker of single doses of MIV-711



- Uncomplicated PK supporting once daily dosage
- Safe and well tolerated at all doses tested (up to 600 mg)
- Serum levels of CTX-I were reduced by up to 79% at 24 h after dose



## **Simeprevir**

- A potent HCV protease inhibitor in registration phase**

# Simeprevir - phase III development program in HCV G1 & 4 infected patients

- **QUEST 1 and 2** (treatment-naïve) - *final data presented at EASL*
- **PROMISE** (prior relapser) - *final data presented at Digestive Week*
- **CONCERTO 1-4 in Japan** (treatment naïve & experienced) - *results presented at Japan Society of Hepatology's Annual Meeting*

## *Ongoing phase III studies:*

- **China:** naive GT1 HCV patients – *fully enrolled (n=444)*
- **ATTAIN:** prior non-responders (SMV vs TVR) – *fully enrolled (n=765)*
- **RESTORE:** HCV GT4 infected patients – *fully enrolled (n=107)*
- **C212: HIV-HCV** co-infected patients – *fully enrolled (n=109)*
- **12 weeks full stop**, open-label, single-arm study in treatment naïve GT1 patients

***Regulatory applications filed in JPN, US and EU aiming for a broad label***

# Simeprevir - Regulatory status and summary phase III

## *Regulatory applications filed in:*

- **Japan** for hepatitis C genotype 1, naïve, prior non-responders or relapsed – Feb, 2013
- **US** for hepatitis C genotype 1 – Priority Review granted in May, 2013
- **EU** for hepatitis C genotype 1 and 4 – April, 2013

## **Overall SVR12 rates**

- 80-81% in naïve and 79% relapsed patients (including 22-31% F3-F4)
- 89-91% in naïve and 96-100% in relapsed patients in Japan

## **83-91% SVR12 rates with 24 weeks treatment**

- 85-91% of patients stopped all treatment at 24 weeks in QUEST-1, -2 and PROMISE

## **Excellent safety and tolerability**

- Overall incidence of adverse events similar to placebo, including rash and anemia
- Safety and tolerability confirmed in Japanese program












## **Simeprevir**

**- All oral interferon-free combination update**

# Simeprevir in interferon-free combinations

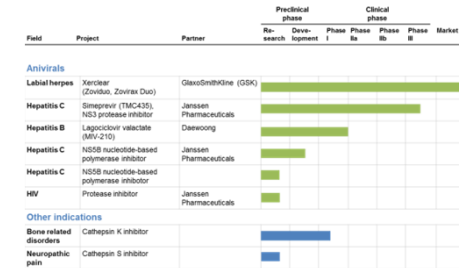
Ribavirin

<b>Simeprevir + Sofosbuvir</b> (nucleotide)	+/-		N=80 Cohort a: nulls, F0-F2 N= 87 Cohort b: only METVIR score <b>F3 and 4 patients</b> (nulls + naives)
	+/-		
<b>Simeprevir + Daclatasvir</b> (NS5A inhibitor)	+/-		N=180 Naives and nulls <b>Incl. F3/4 up to 35 %</b>
	+/-		
<b>Simeprevir + TMC647055/r</b> (NNI; non-nucleoside)	+/-		Naives/relapser and nulls Non-cirrhotics
<b>Simeprevir + VX-135</b> (nucleotide)	+/-		DDI study completed Phase II to start H2 2013 on track
<b>Simeprevir + IDX719</b> (NS5A inhibitor) <b>+/- TMC647055/r</b>	+/-		HELIX-1 Phase II started during Q2 HELIX-2 to start during Q3

**Simeprevir is strongly positioned to become a principal component of future IFN-free therapies**



# Key events in the coming 12 month



- H2-13 Results from phase I-study with MIV-711, our cathepsin K inhibitor (bone related disorders)
- H2-13 Start of the phase II study - HELIX-2 (simeprevir + TMC647055 and samatasvir - IDENIX)
- H2-13 Start of Phase II with simeprevir and VX-135 (Vertex)
- H2-13 Potential CD selection in Cathepsin S (neuropathic pain) program
- H2-13 Anticipated approval in Japan for simeprevir
- H2-13 Goal to start phase I trials with Medivir/Janssen nucleotide NS5B-inhibitor
- H2-13 Data from the phase II combination study with simeprevir and daclatasvir (BMS)
- H2-13 Presentations at AASLD
- H2-13 SVR data from Cohort 2 with simeprevir and sofosbuvir phase II study
- H1-14 Anticipated approval of simeprevir in the US
- H1-14 Anticipated approval of simeprevir (triple) in EU
- H1-14 Potential CD selection in our internal Nucleotide NS5B inhibitor program
- H1-14 Presentations at EASL

[www.medivir.com](http://www.medivir.com)

**Ticker: MVIR**  
**Exchange: OMX / NASDAQ**

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