

The background of the slide is a blurred photograph of laboratory glassware, including a graduated cylinder and beakers, suggesting a scientific or pharmaceutical setting.

# Medivir

*A specialty pharmaceutical company focused on infectious diseases*

**Jefferies Health Care Conference  
London 27 September**

**Rein Piir EVP Corporate Affairs & IR**

# Medivir in Brief

Listed:	1996
Ticker:	MVIR
Exchange:	OMX NASDAQ
Market Cap (SEK / €):	3.200 / 350 Million

## **Focused infectious disease pipeline – multiple paths to value creation**

- World leading science in the field of infectious disease
- TMC435 – a potential hepatitis C blockbuster in Phase III development
- 10 projects in clinical and pre-clinical development, 7 in partnerships with pharma, all Nordic marketing rights kept by Medivir

## **Product sales and market presence**

- Nordic infrastructure and sales of own products secured through acquisition of BioPhausia, today bringing € 50m in sales and €10 m in EBITDA.
- The launch of Xerclear® (in-house developed cold sore treatment) via partners initiated in the US (Rx) in March 2011 and in EU (OTC) by GSK expected in Q1-2012

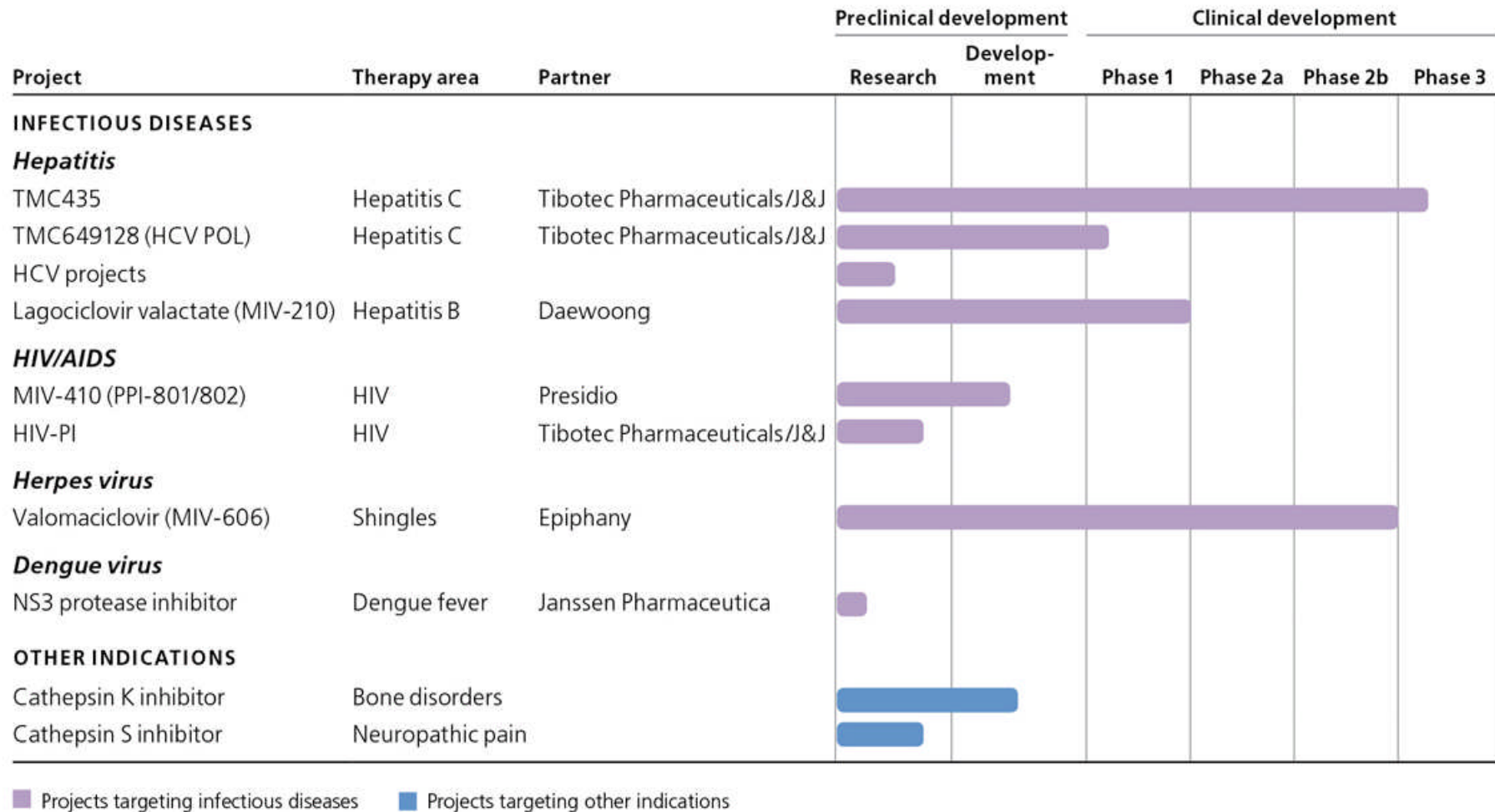
## **Strong balance sheet**

- €75 in cash and secured cash runway towards launch of TMC435 in late 2013

## **Strong commitment of long-term institutional shareholders**

- Approximately 30% international shareholders

# Strong pipeline with multiple paths to value creation

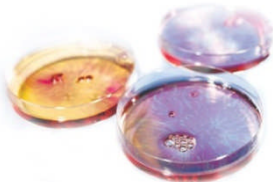


# Key innovation and commercialisation at Medivir



## **TMC435 – Considered best in class hepatitis C drug**

- Excellent antiviral activity and strong safety profile demonstrated in Phase IIb studies
- High convenience – one pill, once daily, no food interactions
- Global Phase III trials and interferon-free combination trials ongoing



## **Strong pipeline in development**

- Strong pipeline of innovative infectious disease drugs
- World class expertise in polymerase and protease drug targets

**BioPhausia**

## **Commercial presence and platform**

- Product portfolio including strong brand names
- Established commercial platform to be used at TMC435 launch in Nordic region
- Key competence within regulatory affairs and logistics



## **Xerclear® / Xerese™ - in global launch phase 2011**

- Differentiated product profile - unique preventive effect and blue-chip marketing partners

# Hepatitis C in the Nordic region

## - Major market with substantial growth potential

### The Nordic HCV market

- An estimated 115.000 chronic HCV patients in the Nordic region
- About 3.000 are currently treated yearly at a patient cost of SEK 175,000 ( €20,000)
- The treatment rates will increase as new, safer and improved treatments are introduced

### Medivir has retained the Nordic commercial rights

- High priority and focus on pre-launch activities to facilitate broad and rapid market access for TMC435 well in advance of launch
- Aiming to capture a significant share of the protease inhibitor market due to the highly competitive attributes of TMC435
- Medivir will in addition receive royalties from TMC435 sales in rest of the world

### Treatment evolution – Main market driver

- Patient warehousing of HCV patients with G1 is acknowledged – Approx 10-20% of these patients are in an acute phase and need treatment immediately
- Share of PI treated naïve patient will rapidly increase as PI's gain recognition



## **Our hepatitis C franchise**

Partnered and in-house product portfolio

# Commercializing TMC435 – Our Core Product



- **Strong safety profile:** no adverse events over SoC in the Phase IIb PILLAR and ASPIRE studies
- **Excellent anti-viral efficacy** shown in Phase IIb PILLAR and ASPIRE studies
- **High convenience:** one pill, once daily, no food interactions
- **Fully enrolled Phase III clinical trials:** approval anticipated late 2013

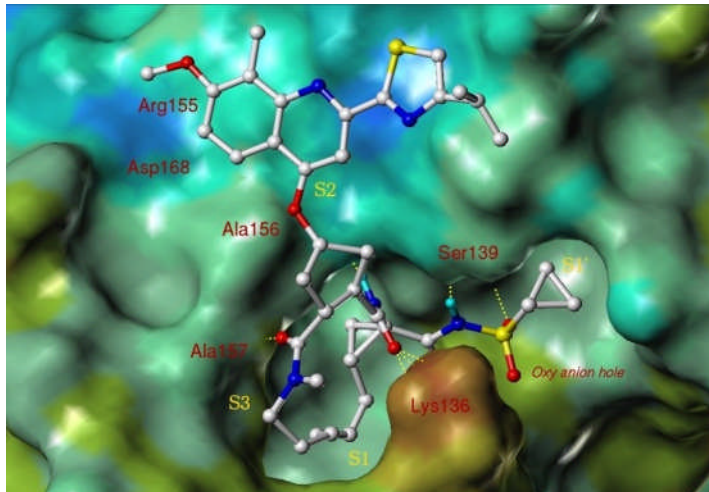


# Medivir commitment to HCV - TMC-435



## The commercial opportunity

- € 80.5 million deal value
  - € 30 million still outstanding
  - Royalties on sales worldwide
- Medivir retain Nordic market rights
  - Prevalence of chronic HCV infected ~115,000
  - Current treatment rates ~ 3 000



## Summary & Status

- Potent HCV NS3/4A protease inhibitor
- Broad global clinical development program ongoing:
  - Phase III combination trials with PEG/RBV ongoing
  - IFN-free combinations with DAA agents initiated and/or in planning phase
- Long patent life
  - IP extending to 2026 and 2028

### **Decision Resources, Report March 2011:**

*-TMC-435 has the potential to emerge as the future gold-standard therapy in our Drug Comparator Model because of its superior clinical profile over the current therapies we evaluated-.*



# TMC435 - Late Stage Clinical Development Program

## Phase IIb Follow Up

**PILLAR (C205)** (n=386)  
Genotype-1 infected treatment-naïve patients  
(SVR24 results at AASLD 2011)

**DRAGON (C215)** (n=92)  
Genotype-1 infected treatment-naïve patients  
(SVR24 results at Digestive week Japan Oct-11)

**ASPIRE (C206)** (n=462)  
Genotype-1 infected treatment-experienced patients  
(SVR24 results, late Q4-11)

## Phase III Ongoing (fully enrolled)

**QUEST 1 (C208)** 375  
Genotype-1 infected treatment-naïve patients

**QUEST 2 (C216)** 375  
Genotype-1 infected treatment-naïve patients

**PROMISE (C3007)** 375  
Genotype-1 infected *relapsed* patients

### Japan phase III program

Genotype-1 infected *naïve and treatment experienced* patients

## IFN free combination studies with other DAAs

**TMC435 and TMC647055**, a non-nucleoside NS5B inhibitor developed by Tibotec Pharmaceuticals (initiated)

**TMC435 and PSI-7977**, a nucleotide NS5B inhibitor. A Phase II, interferon-free, 12 or 24 weeks, +/- ribavirin PoC study in genotype-1 prior null responders (to be initiated)

**TMC435 and TMC649128**, a nucleoside NS5B polymerase inhibitor developed in collaboration with Tibotec (in planning)

TMC-435: Regulatory filing in 2013, approval anticipated late 2013

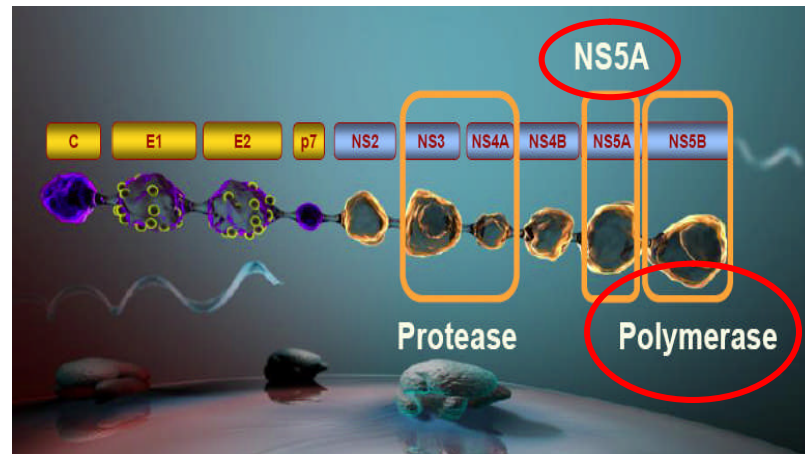
# Medivir commitment to HCV - 2<sup>nd</sup> DAA programs

## TMC649128 (HCV PolI)



### A major commercial opportunity

- € 147 million deal value
  - € 95 million outstanding
  - Royalties on global sales
- Medivir retain Nordic market rights
  - Prevalence of chronic HCV infected ~115,000
  - Current treatment rates ~ 3 000



### Summary & Status

- Nucleoside/tide NS5B inhibitor
- An ideal DAA agent for future TMC435 IFN-free combination regimen
- High barrier to resistance and broad genotype coverage
- Long patent life
  - IP extending to 2027 and 2029
- Phase Ib trial in gt1 HCV patients initiated

### Preclinical In-House Programs

- An NS5B nucleoside/tide program
- An NS5A program in LO phase



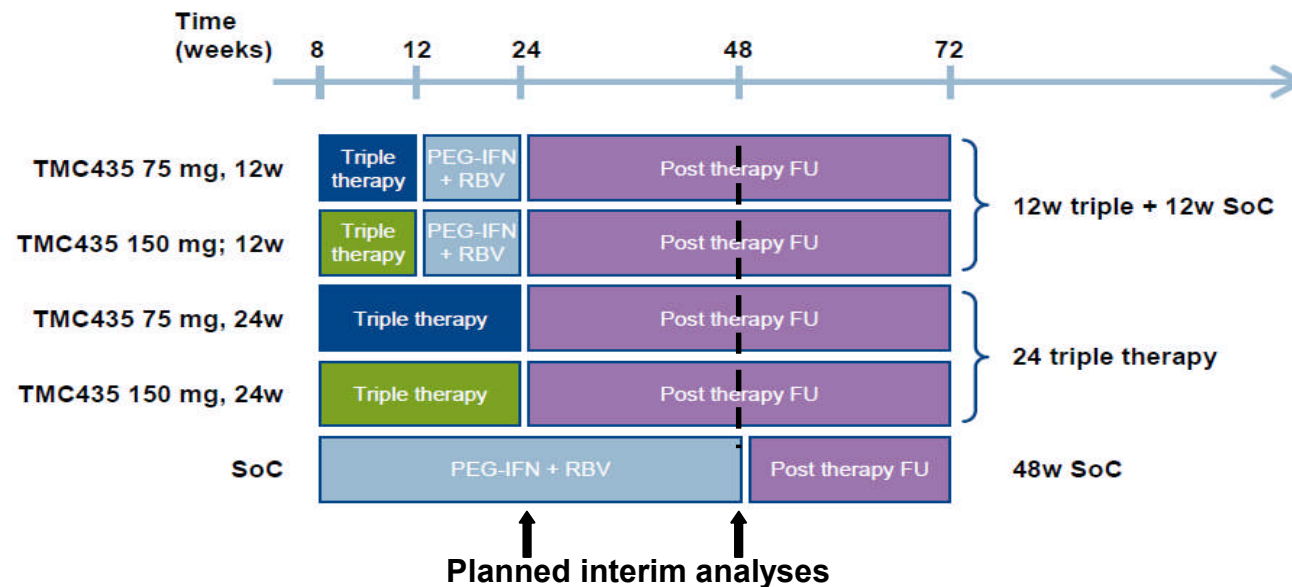
# **Our hepatitis C franchise**

TMC435 - results clinical development

# TMC435 Phase 2b (PILLAR C205)

## - study design

- 386 genotype-1 treatment-naïve patients
- Once daily (*q.d.*), 75 mg and 150 mg TMC435 + SoC:
  - 12-week triple therapy followed by SoC alone up to week 24 or
  - 24-week triple therapy
- Response-guided TMC435 treatment duration:
  - End treatment at Week 24, if
    - HCV RNA <25 IU/mL detectable or undetectable at Week 4, *and*
    - HCV RNA <25 IU/mL undetectable at Weeks 12, 16, and 20
  - All other patients continued Peg/RBV for up to 48 weeks



# TMC435 Phase 2b (PILLAR C205)

## - 48-week interim analysis of safety and efficacy (SVR24)

**Patient population:** Treatment-naïve genotype 1 patients

**Efficacy:** 83% of patients were able to stop all therapy at week 24 in the TMC435 treatment groups

Potent and consistent antiviral efficacy with SVR24 rates of up to 84%

**Safety:** No clinically relevant difference in safety and tolerability between TMC435 and placebo groups

Sustained Virological Response 4 and 24 Weeks after Planned End of Treatment (EoT);					
% (n/N)	TMC435 12PR24 75mg q.d. N=78	TMC435 24PR24 75mg q.d. N=75	TMC435 12PR24 150mg q.d. N=77	TMC435 24PR24 150mg q.d. N=79	Placebo N=77
SVR4	87.2 (68/78)	86.5 (64/74)	84.9 (62/73)	88.5 (69/78)	71.2 (42/59)
SVR24	83.6 (61/73)	76.1 (51/67)	83.1 (59/71)	84.4 (65/77)	N/A

\* < 25 log<sub>10</sub> IU/mL undetectable

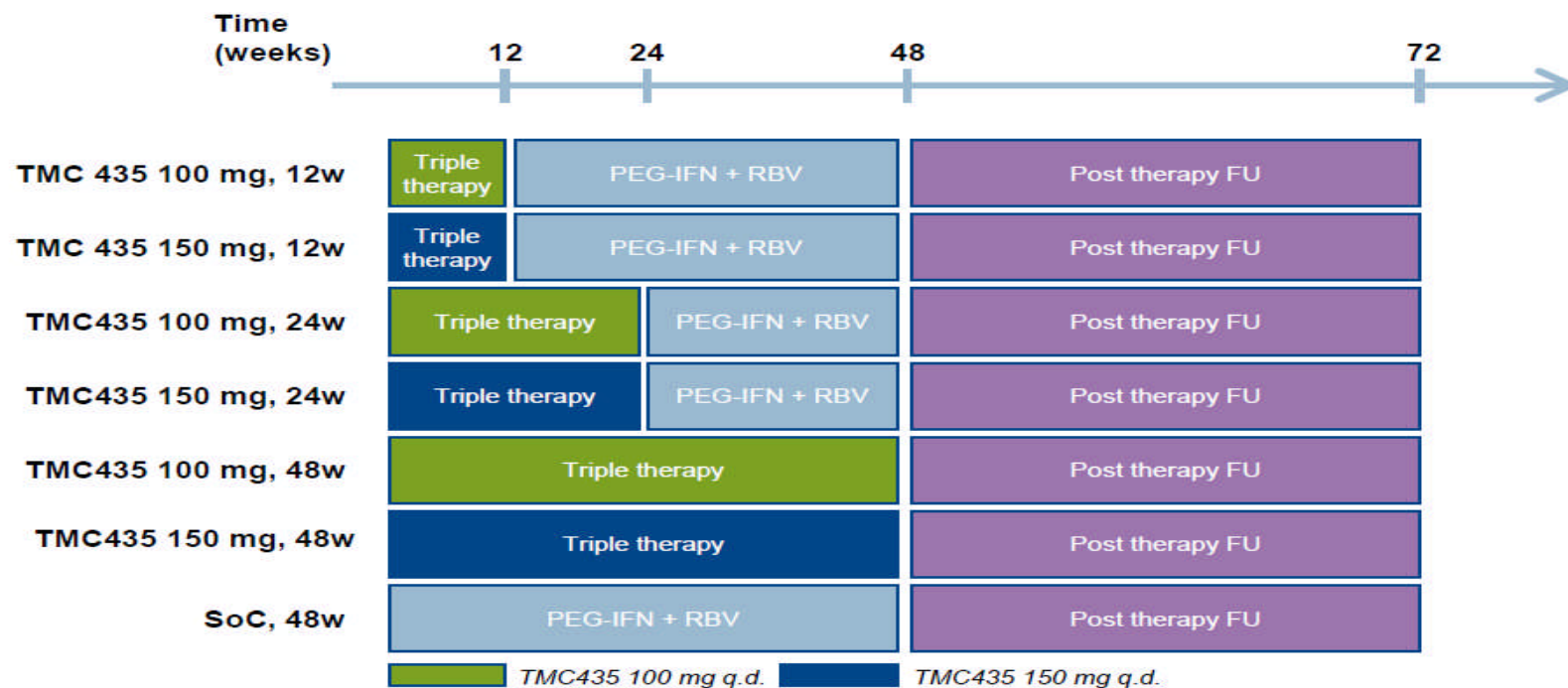
q.d.: once daily, PR: pegIFNalpha-2A and ribavirin,

SVR4 and SVR24: patients with undetectable HCV RNA 4 and 24 weeks after planned EoT, respectively.

N/A: Patients in the control arm continue SoC until Week 48 and SVR24 data was not available

# TMC435 Phase 2b (ASPIRE C206, treatment experienced) - study design

- 462 genotype-1 treatment-experienced patients (relapser, partial- and null responder patients)
- Once daily (*q.d.*), 100 or 150 mg TMC435 + SoC:
  - 12-week triple therapy followed by 36 weeks of SoC
  - 24-week triple therapy followed by 24 weeks of SoC
  - 48-week triple therapy



# TMC435 Phase 2b (ASPIRE C206)

## - 48 week interim analysis of safety and efficacy

**Patient population:** Treatment experienced patient group  
62 percent (287/462) of patients had advanced liver disease (Metavir F2-F4)

**Excellent Efficacy:** TMC435 shows high SVR4 rates in prior treatment failures, also in the very difficult to treat partial and null responder patient groups, compared to PEG/RBV alone:

- 87% vs. 50% in prior relapsers,
- 77% vs. 11% in prior partial responders and
- 57% vs. 23% in prior null responders

**Promising Safety:** TMC435 was safe and well tolerated at all doses and treatment durations

Virologic Response Rates in TMC435 Dose Groups (150 mg q.d.) vs Placebo						
% (n/N)		TMC435 12PR48 N=66	TMC435 24PR48 N=68	TMC435 48PR48 N=65	All TMC435 PR48 N=199	Placebo PR48 N=66
Prior Relapser	EoT SVR4	92 (24/26) 84 (21/25)	93 (25/27) 93 (25/27)	92 (24/26) 85 (22/26)	<b>92</b> (73/79) <b>87</b> (68/78)	<b>70</b> (19/27) <b>50</b> (12/24)
Prior Partial Responder	EoT SVR4	78 (18/23) 64 (14/22)	83 (20/24) 86 (18/21)	86 (19/22) 82 (18/22)	<b>83</b> (57/69) <b>77</b> (50/65)	<b>17</b> (4/23) <b>11</b> (2/18)
Prior Null Responder	EoT SVR4	65 (11/17) 56 (9/16)	71 (12/17) 60 (9/15)	77 (13/17) 56 (9/16)	<b>71</b> (36/51) <b>57</b> (27/47)	<b>25</b> (4/16) <b>23</b> (3/13)



# TMC435 Phase 2b (ASPIRE C206)

## - 48-week interim data compared with competitor drugs

- **Excellent efficacy**
  - high SVR4 rates in prior treatment failures, also in the very difficult to treat partial and null responders
  - high efficacy demonstrated despite large proportion of patients with cirrhosis and advanced liver disease; **62 percent** (Metavir F2-F4)
- **Promising safety profile**
  - safe and well tolerated at all doses and treatment durations

Virologic Response Rates in TMC435 and clinical competitor HCV PIs						
% (n/N)		BI201335 BI24PR48	Telaprevir INCIVIK T12PR48	Boceprevir VICTRELIS B44PR48	TMC435 PR48	Placebo PR48
Prior Relapser	SVR4	-	-	-	87	50
	SVR24	-	86	75		
Prior Partial Responder	SVR4	-	-	-	77	11
	SVR24	50	59	52		
Prior Null Responder	SVR4	-	-	-	57	23
	SVR24	35	32	-		

# TMC435 Phase 2b (ASPIRE C206)

- treatment experienced patients


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## Conclusions 48-week interim analysis:

- ✓ TMC435 treatment arms demonstrate excellent SVR4 response rates in all patient subgroups
- ✓ Notably, the partial and null responder groups demonstrated significant response rates
- ✓ TMC435 was safe and well tolerated

# Upcoming News Flow

## Expected key news flow highlights during the coming 6 month

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- ✓ Q2 TMC435, 48-week interim data from the Phase IIb C206 (ASPIRE) trial in treatment-experienced patients
  - ✓ Q2 Closing of the BioPhausia offer
  - ✓ Q2 Start of Phase Ib trials with TMC649128
  - ✓ Q3 TMC435 receives Fast Track Designation from FDA
  - ✓ Q3 TMC435 enters in two DAA combination trials
  - ✓ Q3 TMC435 Phase III enrollment completed
  - ✓ Q3 Appointment of new CEO, Maris Hartmanis
  - Q4 Digestive week Japan - C215 (DRAGON) full SVR24 data
  - Q4 AASLD - C205 (PILLAR) full SVR24 data
  - Q4 AASLD – additional data on TMC435
  - Q4 C206 (ASPIRE) full SVR24 data
  - Q4 Phase Ib results with TMC649128
  - Q1 OTC launch of Xerclear® in Europe by GSK
  - Q1-12 Start of Phase I trials with MIV-711
  - Q1-12 Start of Phase III trials with TMC435 in prior null and partial responder patients