



Press Conference

19 February 2009

**Medivir sharpens the strategic focus and
strengthens its financial position**

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Medivir - Key achievements during the last 12 months



- Cathepsin K Candidate Drug MIV-710 selected on February 4th, 2009
- Cash position by end of year 2008 (SEK 284m) with present yearly structural burn rate of SEK 200m
- Hepatitis C polymerase Candidate Drug selected on December 9th in the JNJ/Tibotec collaboration program triggering a milestone payment of € 2.6m
- Applications for approval of Lipsovir (labial herpes) filed and validated in the US and Europe. Approval target date late autumn 2009
- Our biggest deal ever signed in May with JNJ/Tibotec for hepatitis C nucleoside polymerase inhibitors (>USD 190m)
- Strong phase IIa data presented for TMC435 (hepatitis C protease inhibitor)

CEO introduction

- Medivir sharpens the strategic focus and strengthens its financial position



Medivir Pipeline February 2009

Prioritized projects

Project	Indication(s)	Partners/ Date of agreement	Terms	Medivir's markets	Exploratory phase	Optimization	Preclinical dev. *	Phase I	Phase II	Phase III	NDA
Lipsovir® (ME-609)	Labial herpes	In-house			[Green bar spanning from Exploratory phase to Phase III]						
TMC435 (HCV-PI)	Hepatitis C	Tibotec / 2004	EUR 80.5 m + royalties and FTE funding	Nordic region	[Orange bar spanning from Exploratory phase to Phase II]						
MIV-701 (Cath K)	Osteoporosis, osteoarthritis, bone metastases	In-house			[Orange bar spanning from Exploratory phase to Phase II]						
HCVPOL	Hepatitis C	Tibotec / 2008	EUR 142-272 m + royalties and FTE funding	Nordic region	[Purple bar spanning from Exploratory phase to Preclinical dev. *]						
MIV-710 (Cath K)	Osteoporosis, osteoarthritis, bone metastases	In-house			[Orange bar spanning from Exploratory phase to Preclinical dev. *]						
HIVPI	HIV	Tibotec / 2006	EUR 64 m + royalties and FTE funding	Nordic region	[Orange bar spanning from Exploratory phase to Optimization]						
BACE	Alzheimer's	In-house			[Orange bar spanning from Exploratory phase to Optimization]						
Cathepsin S	Rheumatoid arthritis, multiple sclerosis	In-house			[Orange bar spanning from Exploratory phase to Optimization]						
COPD PI	COPD	In-house		World	[Orange bar spanning from Exploratory phase to Optimization]						
Renin	Hypertension	In-house			[Orange bar spanning from Exploratory phase to Optimization]						

Inhouse preclinical program

Inhouse preclinical program

Inhouse preclinical program



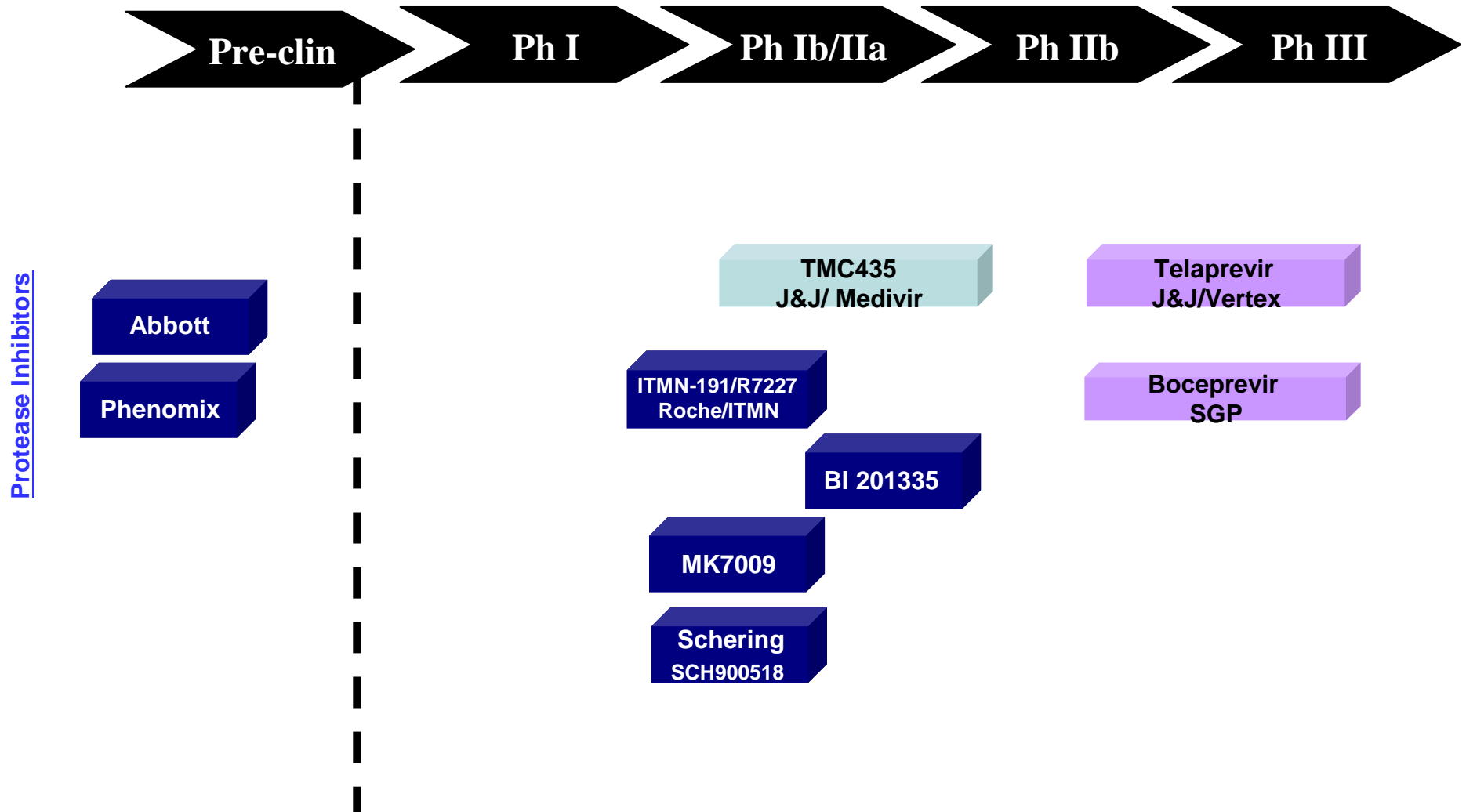
TMC435 - in collaboration with Tibotec / J&J

Presently in final stage of phase IIa for
genotype 1 treatment naïve patients and
treatment experienced patients

Phase IIb planning underway



HCV PI Competitive Landscape



Hepatitis C protease - Medivir/Tibotec - J&J program

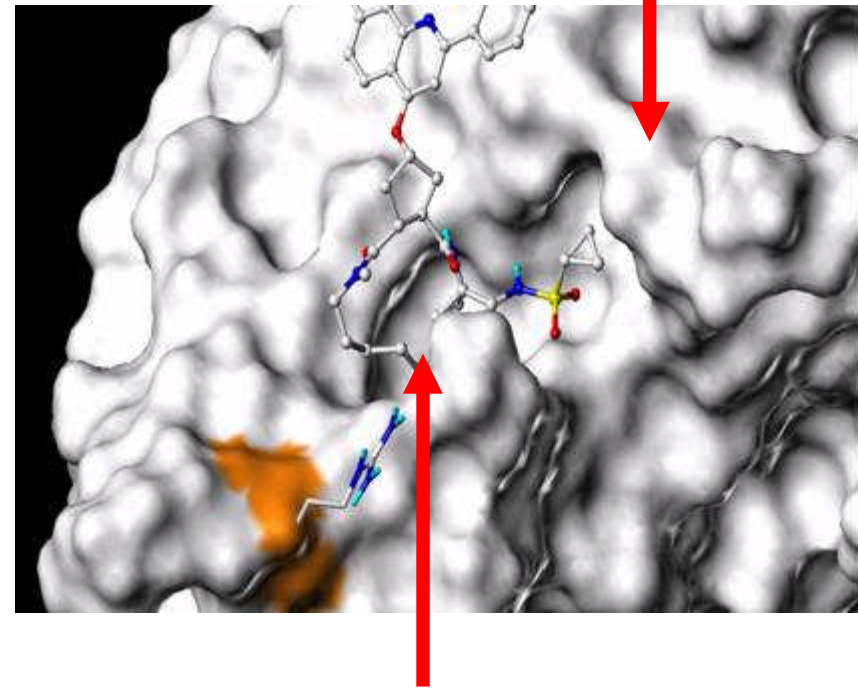
Status

- Phase IIb planning underway
- Phase IIa ongoing
 - Data from 25 and 75 mg dose groups presented in November, more information during spring

Licensing agreement

- Upfront & milestones of EUR 80.5m (EUR 47m remains)
+ royalties on sales
- All development costs covered by Tibotec
- Nordic rights retained by Medivir

NS3/4A:
Key protease for
virus replication



Enzyme inhibiting compound

Opera-1 (cohort 1): Antiviral efficacy (2)

Table 3: Mean HCV RNA changes from baseline and number of patients with HCV RNA levels below lower limit of quantification (LLQ) and detection (LLD) per treatment arm.

Dose/Treatment	Time point (Day)	Mean HCV-RNA change (Log ₁₀ IU/mL)	< LLQ n/N <25 IU/mL	< LLD n/N <10 IU/mL
Panel A Placebo	7	-0.08	0/6	0/6
Panel A TMC435 25 mg	7	-2.63	1/9	0/9
Panel A TMC435 75 mg	7	-3.43	0/9	0/9
Panel B Placebo	7	-1.77	0/6	0/6
	14	-2.56	0/6	0/6
	28	-3.83	3/6	2/6
Panel B TMC435 25 mg	7	-3.47	1/9	0/9
	14	-4.19	3/9	1/9
	28	-4.74	6/9	3/9
Panel B TMC435 75 mg	7	-4.55	1/9	0/9
	14	-5.15	7/9	3/9
	28	-5.52	9/9	8/9

RVR of 89%

HCV RNA levels were assessed with Roche COBAS Taq Man HCV/HPS assay v2 with an LLQ of 25 IU/mL and an LLD of ~10 IU/mL. To calculate mean HCV RNA values, results below LLQ are imputed with 24 IU/mL and values below LLD with 9 IU/mL.

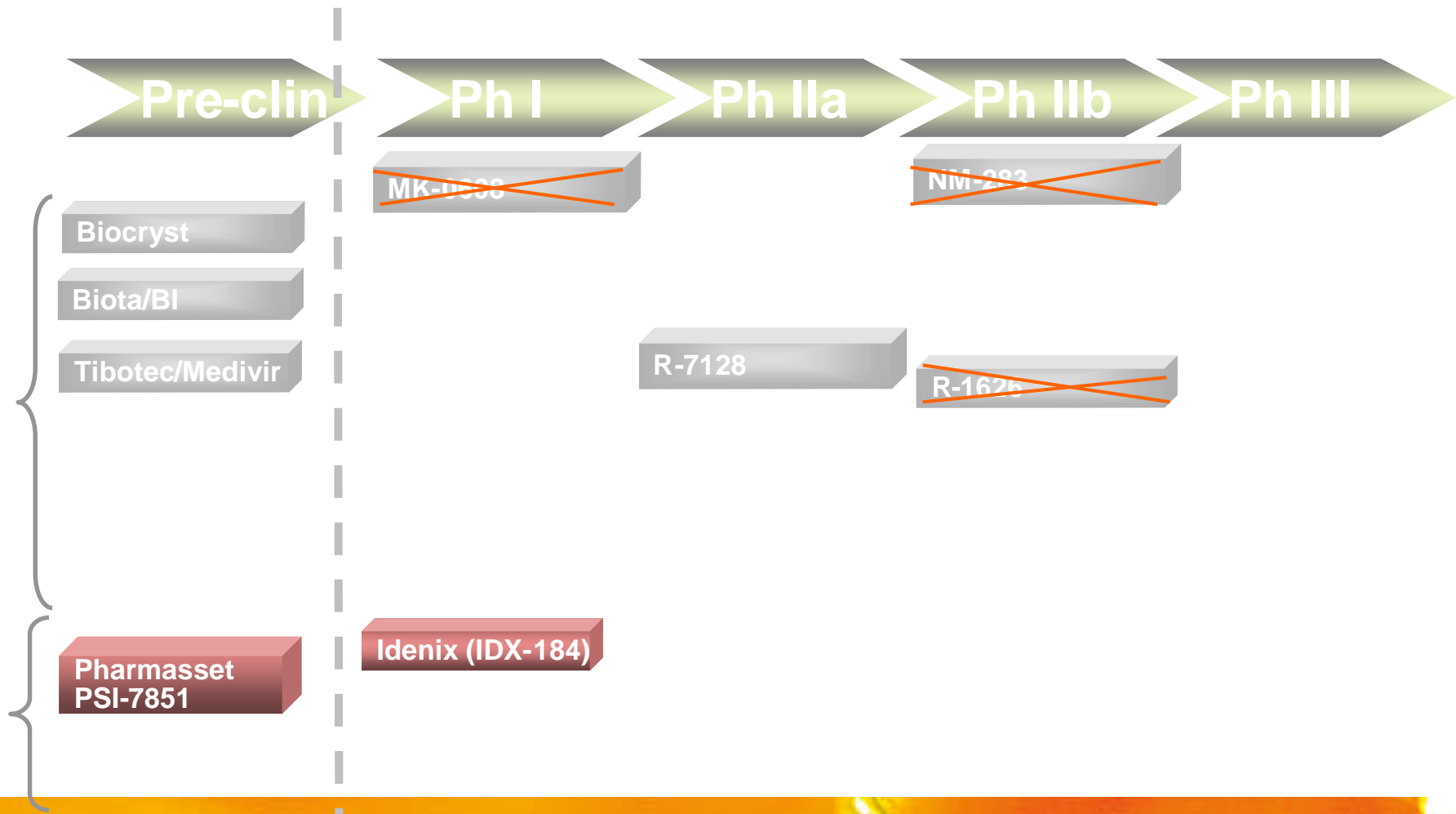


In collaboration with
Tibotec / JNJ

Nucleoside HCV Polymerase Inhibitors



HCV Nucleoside Competitive Landscape



Hepatitis C Polymerase - Medivir/J&J program

Status

- Partnership with Tibotec / Johnson & Johnson since May 15 2008
- Candidate Drug selected on December 9th, 2008, triggering a milestone of € 2.6m
- The selected CD now in preclinical development towards phase I

Patents

- Extensive and non-limiting IP filed

Licensing agreement

- Remaining milestones of € 137m + royalties on sales for one product reaching market.
- Additional € 130m for second compound and indication reaching market + royalties on sales.
- FTE Funding for one year
- All development costs covered by JNJ
- Nordic rights retained by Medivir





In collaboration with
Tibotec/ JNJ

HIV-1 Protease Inhibitor



HIV-PI Program

- License to Medivir IP and start of research collaboration in June 2006
 - Funded research collaboration at Medivir from July 2006 - December 2008
- Highly competitive TPP
- Next milestone is a CD selection

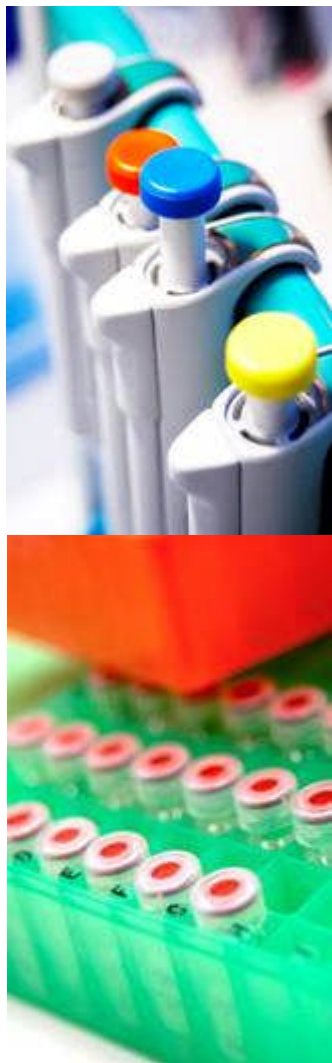


Cathepsin K inhibitors

Osteoporosis and Osteoarthritis



Medivir Cathepsin K Inhibitor Program - Status



- MIV-710 was selected as Candidate Drug in February 4th, 2009. This is a follow-on to MIV-701 having superior pharmacokinetic properties
- A program for a dual Cathepsin S & K inhibitors targeting rheumatoid arthritis, RA, is investigated and could be a part of the future partnering package.
- Strong IP position
- A broad initiative to identify a partner for the full program is now under way

Cathepsin K Inhibitor

- Major market opportunity in both osteoporosis (OP) and osteoarthritis (OA)
- Metastatic bone disease is a major and debilitating adverse complication of several advanced cancers, including breast cancer. Cathepsin K is up-regulated in tumour cells and hence in addition to its direct effect on bone, a cathepsin K inhibitor may well represent a more effective therapy for the prevention of bone metastases
- Cathepsin K inhibitors demonstrate potent and reversible anti-resorptive activity whilst not causing suppression of the beneficial bone formation as expected with other anti-resorptives

Cathepsin K Inhibitor

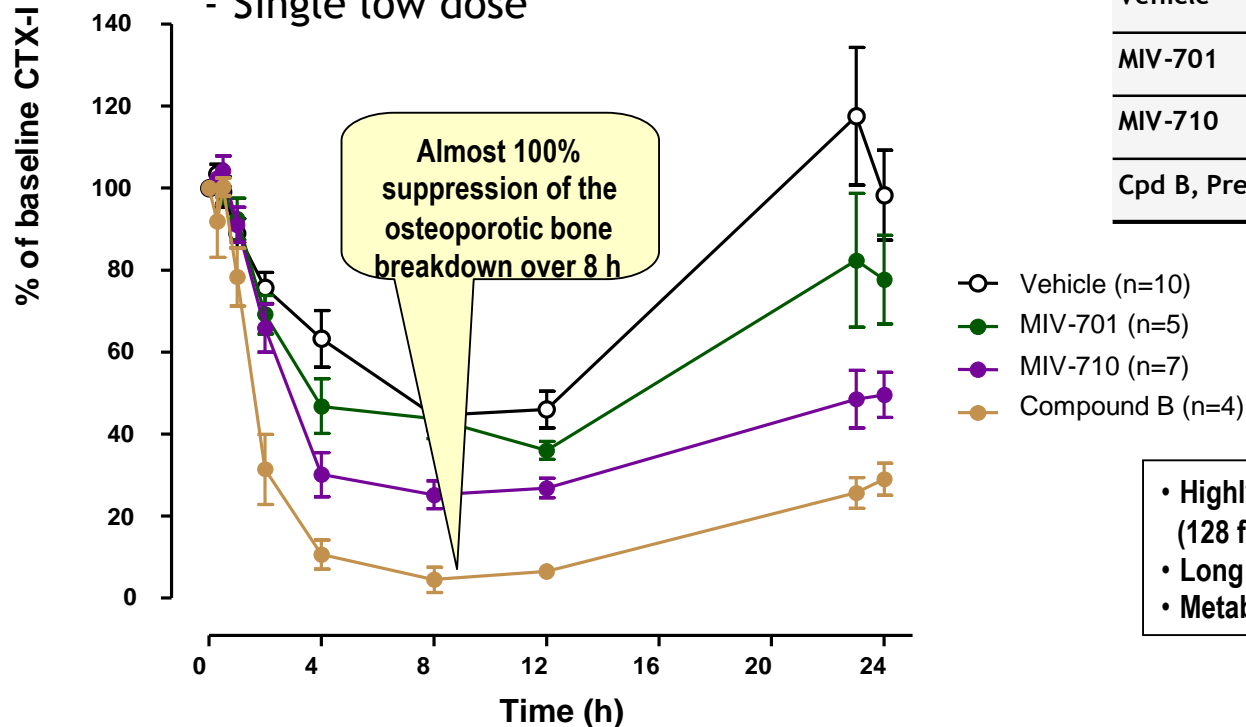
- MIV-710 and the Pre-CD show considerable advantage over odanacatib (Merck, Phase III) in the human osteoclast bone resorption assay, where maintained efficacy is observed up to 8 hours after removing the compound from the media.
- High efficacy, based on CTx-I biomarker levels, has been demonstrated in cynomolgus monkeys
- MIV-710 and the Pre-CD should lead to improved bone formation due to increased PTH levels. Merck's cathepsin K inhibitor, odanacatib, shows a modest increase in BMD which could be due to odanacatib being a once weekly treatment resulting in PTH spikes occurring less frequently. Similarly, bisphosphonate treatment would not be expected to show this increased daily PTH spike
- Several patent applications have been filed and are pending, extending to at least 2025

MIV-710 and Pre-CD compound B

Highly efficacious based on biomarkers for osteoporosis

Reduction in plasma CTx-I, a biomarker of bone breakdown, in cynomolgus monkeys after:

- Oral administration
- Single low dose



Treatment	Max inhibition (%)	Inhibition at 24h (%)
Vehicle	56	2
MIV-701	64	22
MIV-710	75	51
Cpd B, Pre-CD	95	75

- Highly advantageous plasma exposure (128 fold higher compared with MIV-701)
- Long half live
- Metabolically stable

Clinical efficacious dose of ~50 mg once daily expected - low cost of goods

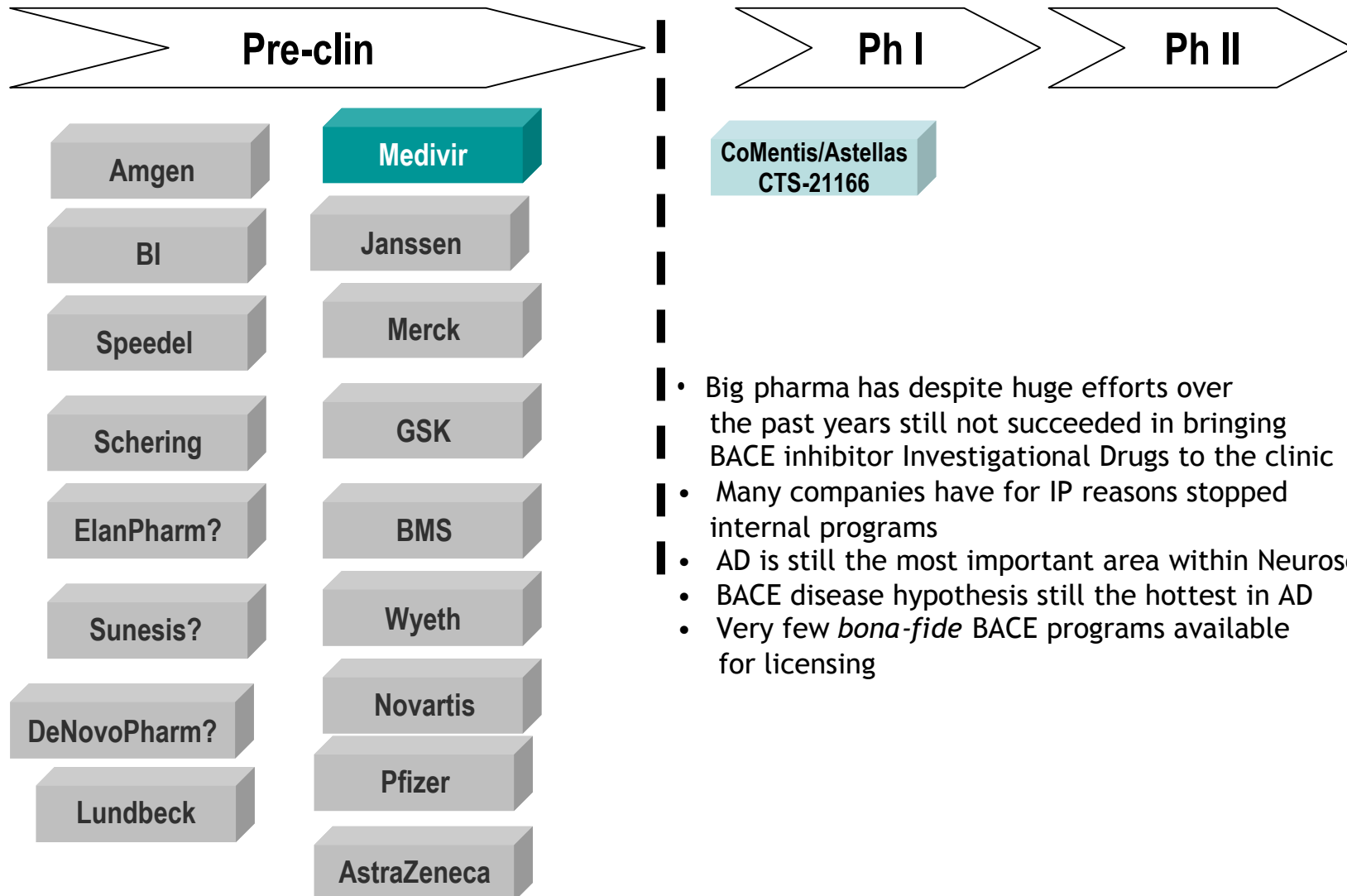




BACE Inhibitors
Alzheimer's disease



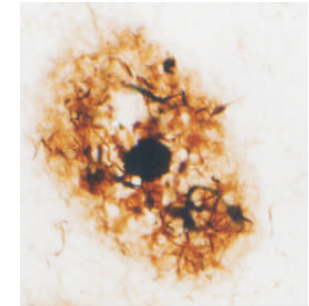
BACE-1 Inhibitors in development



- Big pharma has despite huge efforts over the past years still not succeeded in bringing BACE inhibitor Investigational Drugs to the clinic
- Many companies have for IP reasons stopped internal programs
- AD is still the most important area within Neuroscience
- BACE disease hypothesis still the hottest in AD
- Very few *bona-fide* BACE programs available for licensing

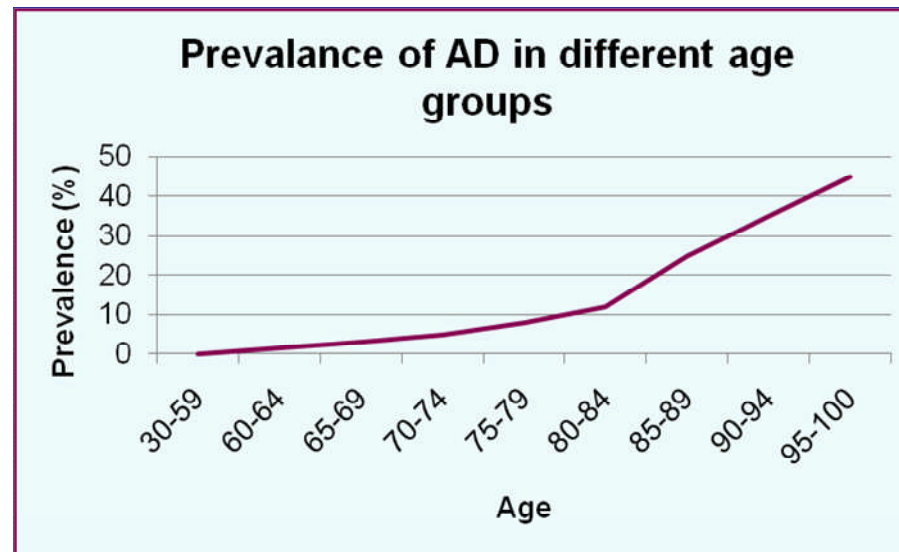
Alzheimer's disease, AD

- Around 24 million AD cases world-wide
- Life expectancy from diagnosis: Approx. 10 years
- The cost for dementia care in Sweden is around 40 billion SEK/ year (\approx heart/vascular diseases and cancer together)
- 60% of all institutional care places are kept by demented persons (30% in the 70s)
- No available drugs cures/prevents the disease
 - Acetylcholine esterase inhibitors
 - Glutamate antagonist



Reduced brain volume
Neuronal cell death
Synaptic degeneration

Plaque (Amyloid β -peptide)



Medivir BACE Program

Novel and patentable lead series

- ✓ 3 validated novel Lead Series
- ✓ 2 additional series are at an earlier stage
- ✓ 1 series at advanced stage

Strong IP (patent) position

- ✓ Extensive and non-limiting IP filed on the 3 Lead Series
- ✓ Novelty on 2 earlier series where IP is still not filed

Potent BACE inhibitors both on enzyme and in cell-based assay

- ✓ Lead inhibitors display potent $IC_{50} < 5 \text{ nM}$ in both BACE enzyme and in cell-based assay, measuring AB40 release

Activity *in vivo* on reduction of AB40 release seen in the CNS upon administration of BACE inhibitor

CD selection expected in approximately 12 month

Partnering discussions initiated

Commercial focus in the coming 12 months

LIPSOVIR	<ul style="list-style-type: none">◆ Regulatory approval in EU & US◆ Secure optimal partnership structure for both EU & US
HEPATITIS C	<ul style="list-style-type: none">◆ HCV PI, TMC435: start of phase IIb clinical trials◆ HCV PI, TMC435: Present more data from the phase IIa study◆ HCV-Polymerase inhibitors: Completion of preclinical GLP safety studies and start of phase I clinical trials
CATHEPSIN K	<ul style="list-style-type: none">◆ Partnering process to be completed
HIV PI	<ul style="list-style-type: none">◆ Candidate Drug selection by Tibotec/J&J
BACE, Alzheimer's	<ul style="list-style-type: none">◆ CD selection and partnering of the BACE program
PHARMA SALES	<ul style="list-style-type: none">◆ Strategic evaluation of Lipsovir for the Nordic markets◆ Secure new co-promotion deals and potential own product(s)
Financial	<ul style="list-style-type: none">◆ Secure a lower cost base