Mitsubishi Tanabe Pharma Corporation

R & D Meeting

December 1, 2010

Hotel Metropolitan Edmont

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Development Project
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Agenda

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- Current Development Status
  - Accomplishment of Development
  - Progress of Major Development Projects
  - Development Offices of MTPC
  - Progress in Development Projects and Creation of New Growth Drivers
- MP-424 (Telaprevir)
  - Current Treatment for Chronic Hepatitis C
  - Clinical Trial Results of Telaprevir
  - Promotions for Appropriate Use of Telaprevir
- FTY720
  - Multiple Sclerosis and Mechanism of Action
  - Clinical Trial Results
  - Development Status

Current Development Status

- Accomplishment of Development
- Progress of Major Development Projects
- Development Offices of MTPC
- Progress in Development Projects and Creation of New Growth Drivers

Accomplishment of Development

(Since Start of MTPC to 29th of Oct. 2010)

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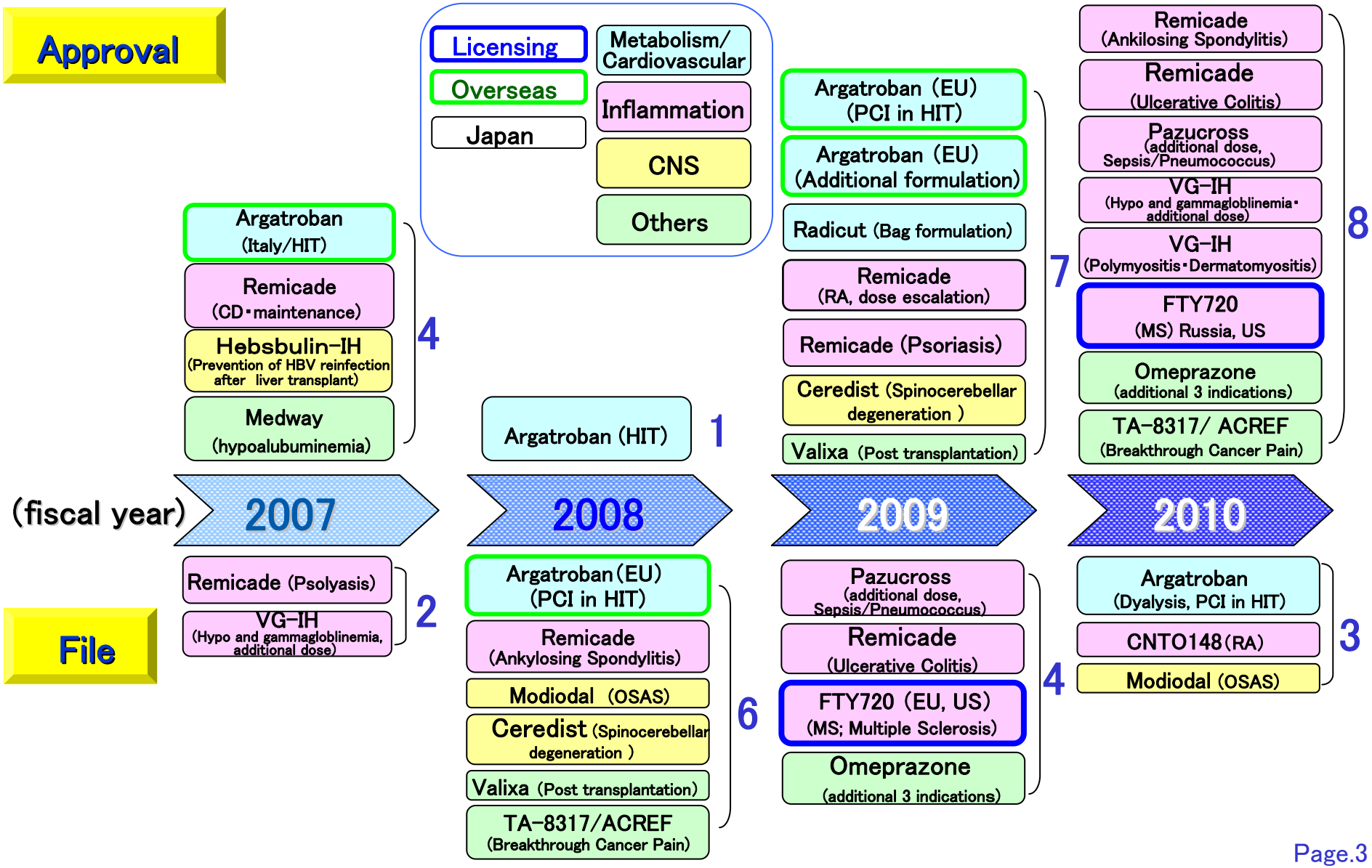
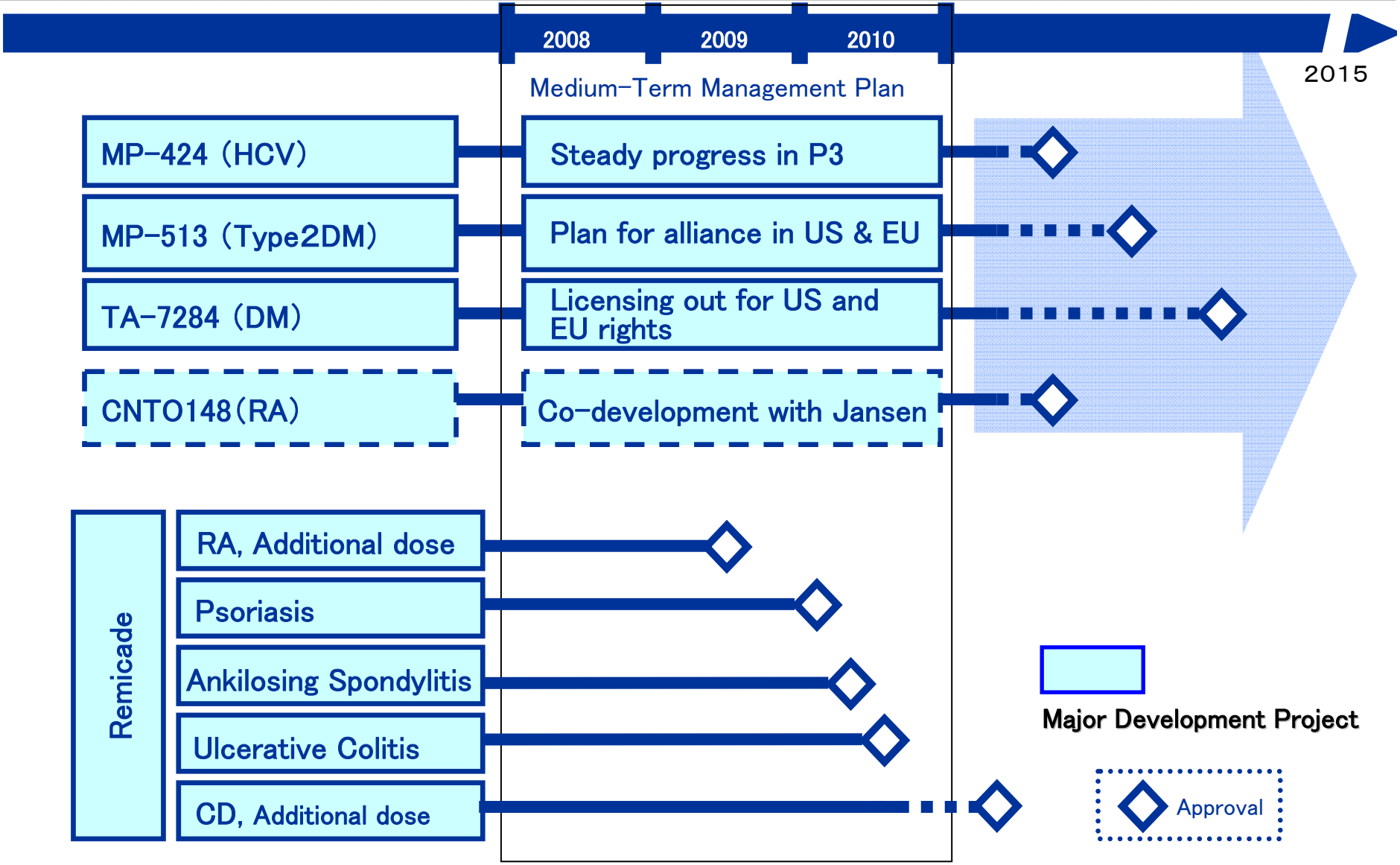


Progress of Major Development Projects (Japan)



Progress of Major Development Projects (Overseas)

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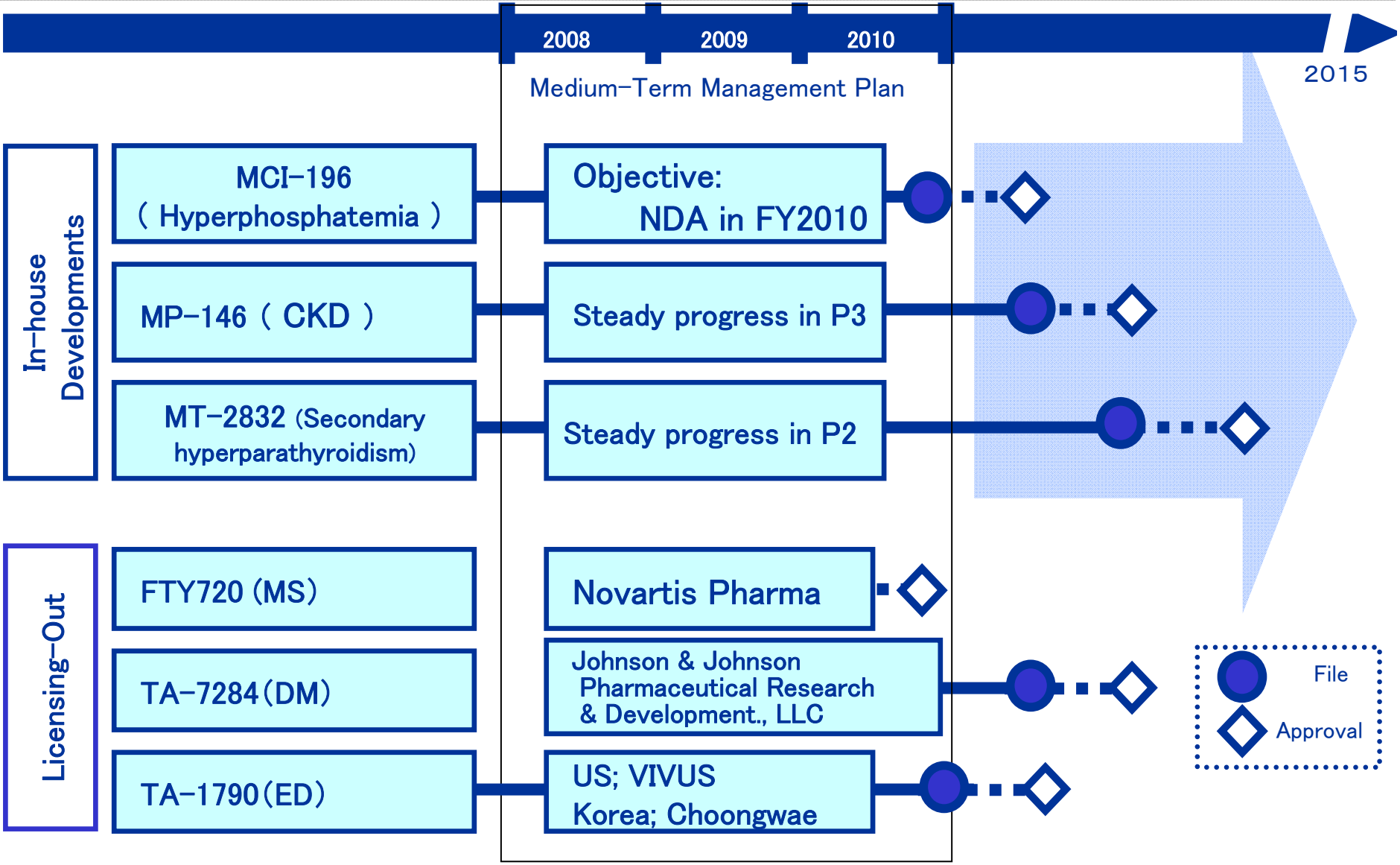
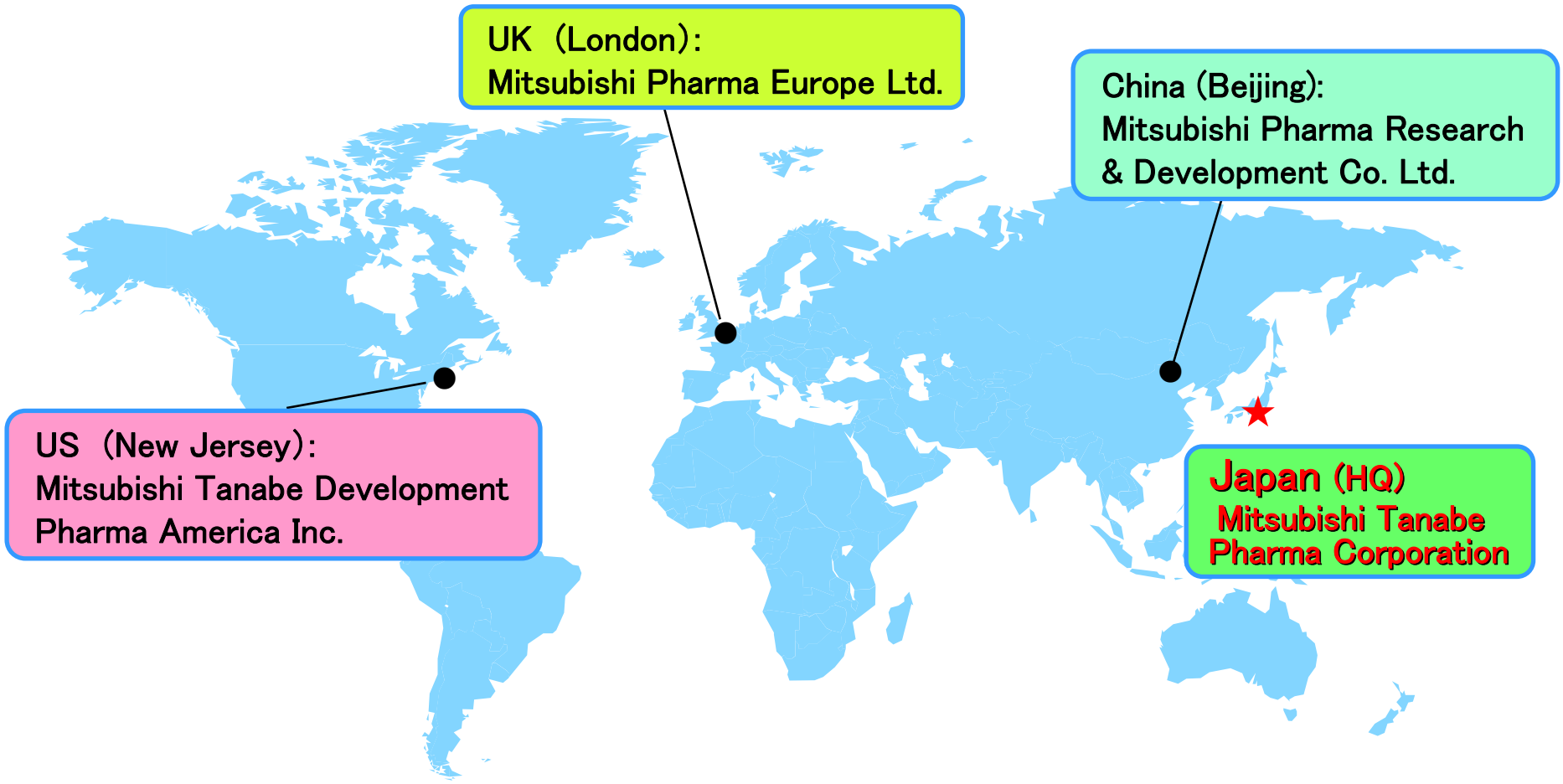


Development Offices of MTPC



Progress in Development Projects and Creation of New Growth Drivers

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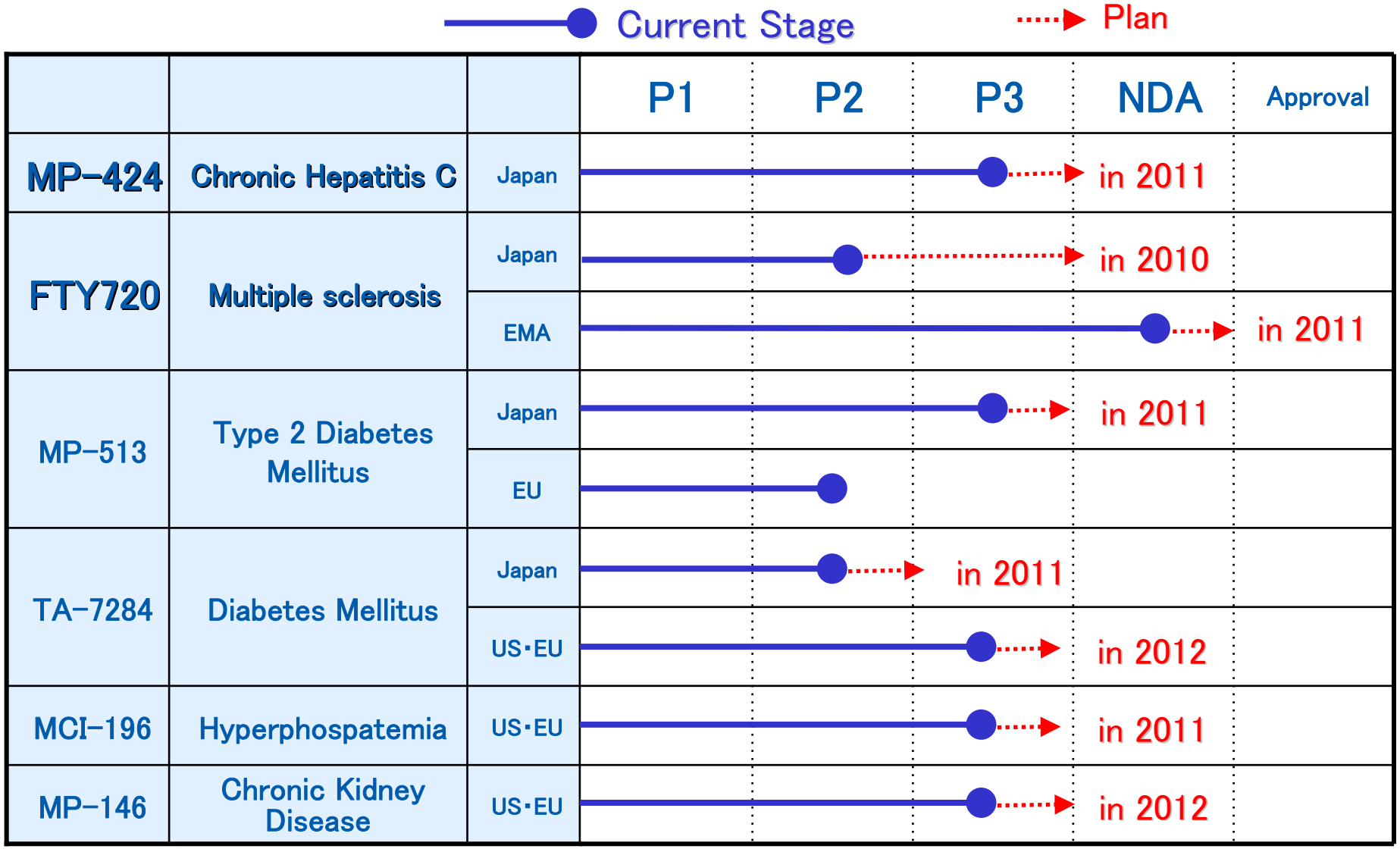

MP-424 (Telaprevir)

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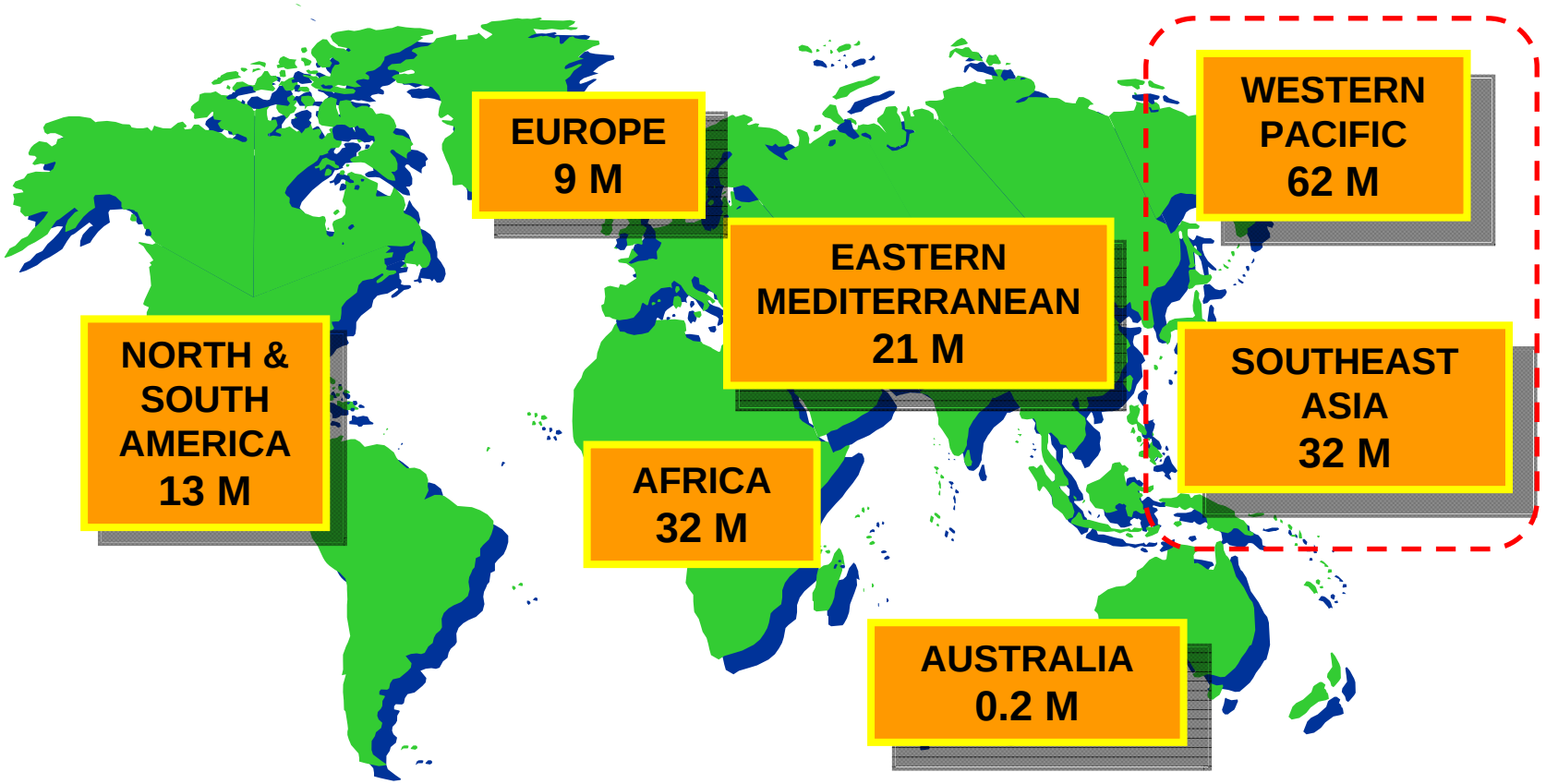
- Current Treatment for Chronic Hepatitis C
- Clinical Trial Results of Telaprevir
- Promotions for Appropriate Use of Telaprevir

Current Treatment for Chronic Hepatitis C

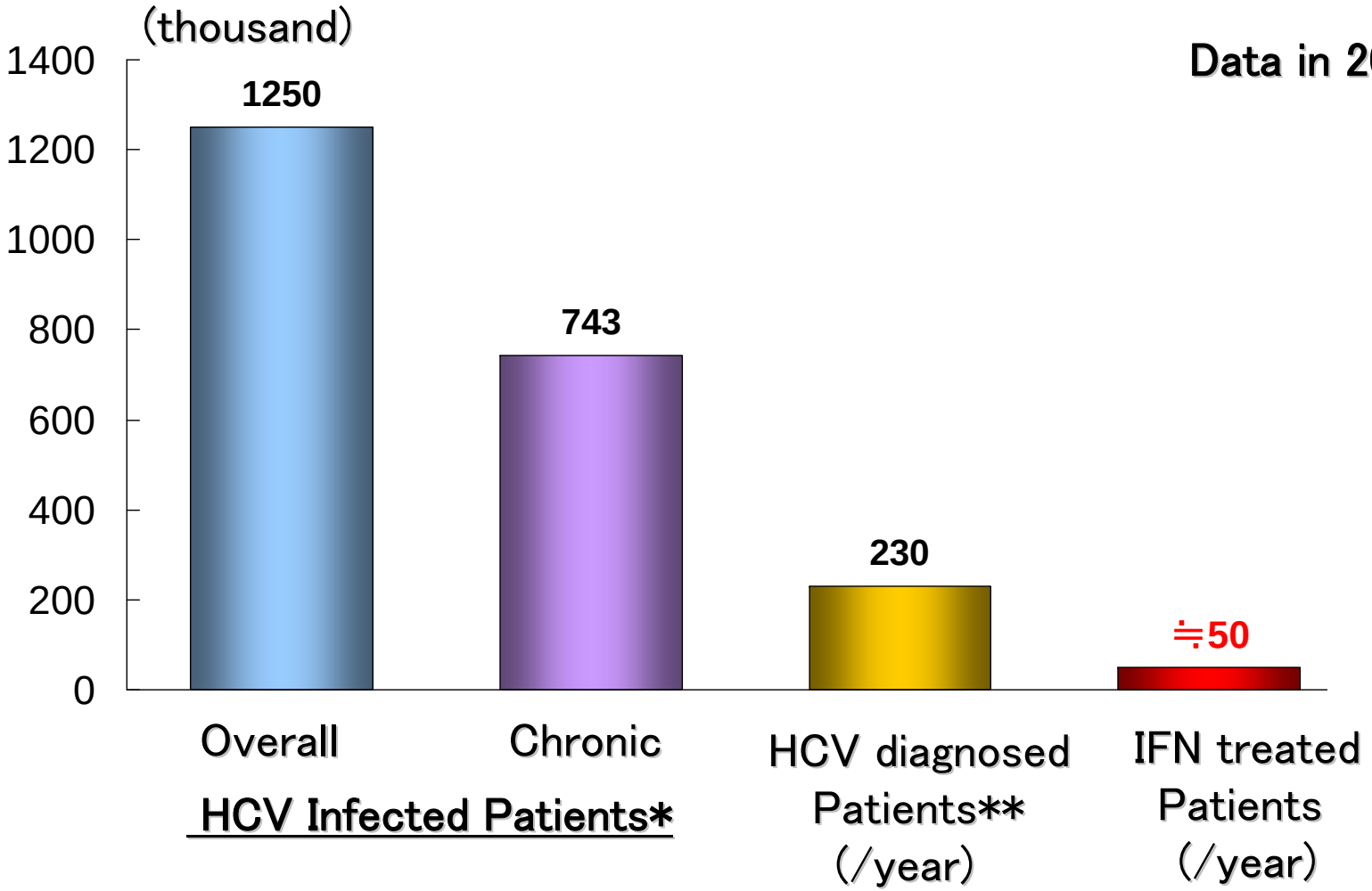
Numbers of HCV Infected Patients in the World

- Ca. 170 million HCV infected Patients (HCV carrier) in the world.
- Relatively high Numbers of HCV carriers in Asian countries.



Weekly Epidemiological Record. N° 49, 10 December 1999, WHO

Number of Treatment Patients of HCV in Japan



*Epidatabase

**MHLW, Investigation of HCV Patients

HCV Treatment for Naïve Patients

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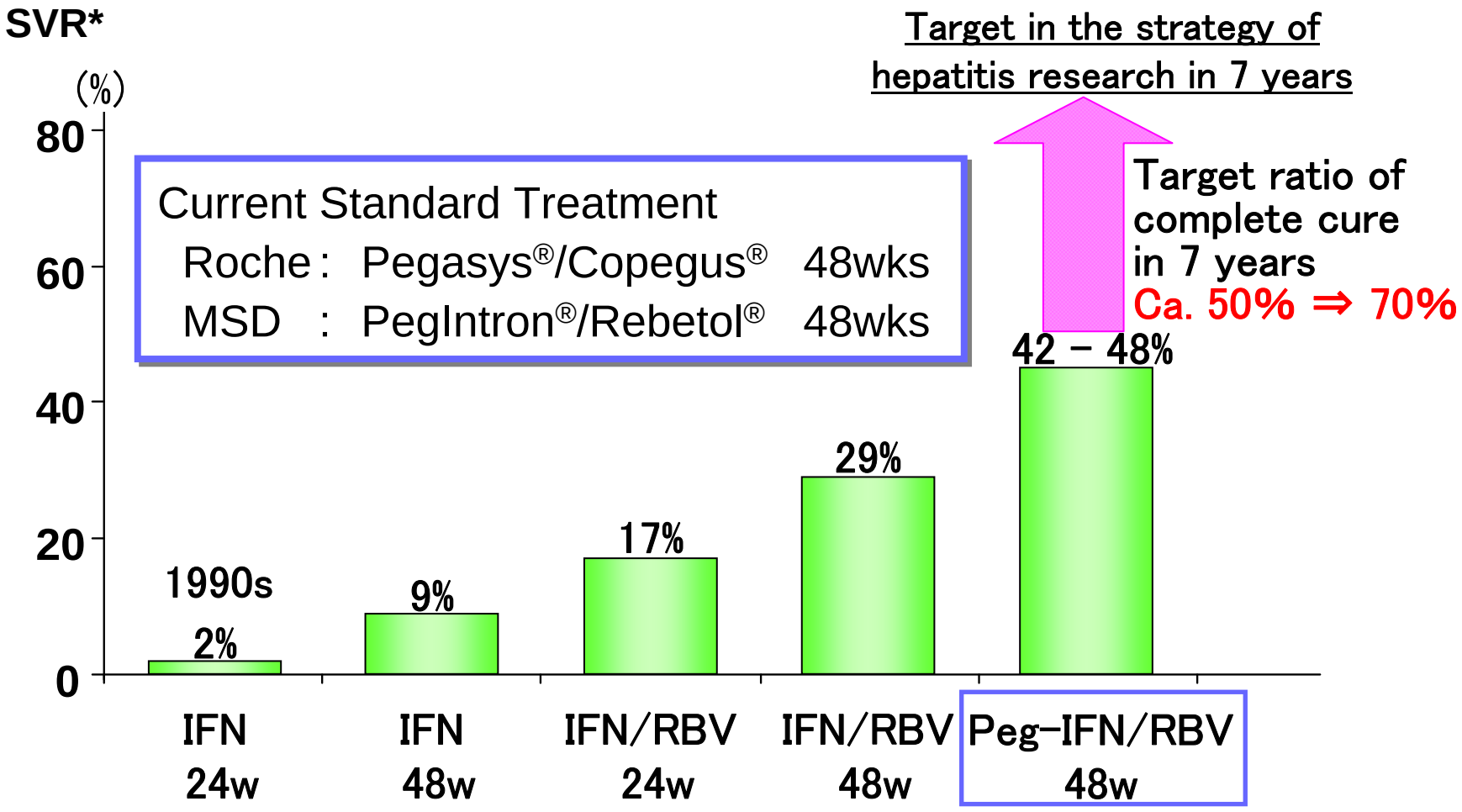
■HCV Treatment Guide Line in 2010

	Genotype 1	Genotype 2
High Viral Load 5.0 Log IU/mL 300 fmol/L 1 Meq/mL and more	Peg-IFNα-2b：Peg-Intron + Ribavirin： Rebetol （48-72week） Peg-IFNα-2a：Pegasys + Ribavirin： Copegus （48-72week） IFNβ ：Feron + Ribavirin： Rebetol （48-72week）	Peg-IFNα-2b ：Peg-Intron + Ribavirin：Rebetol （24week） IFNβ ：Feron + Ribavirin： Rebetol （24week）
Low Viral Load 5.0 Log IU/mL 300 fmol/L 1 Meq/mL less	IFN（24week） Peg-IFNα-2a：Pegasys （24-48week）	IFN（8-24week） Peg-IFNα-2a：Pegasys （24-48week）

Efficacy of HCV Treatment



*sustained viral response

Summary of Committee of Hepatitis Treatment Strategy on June in 2008

HCV Treatment for Relapsers

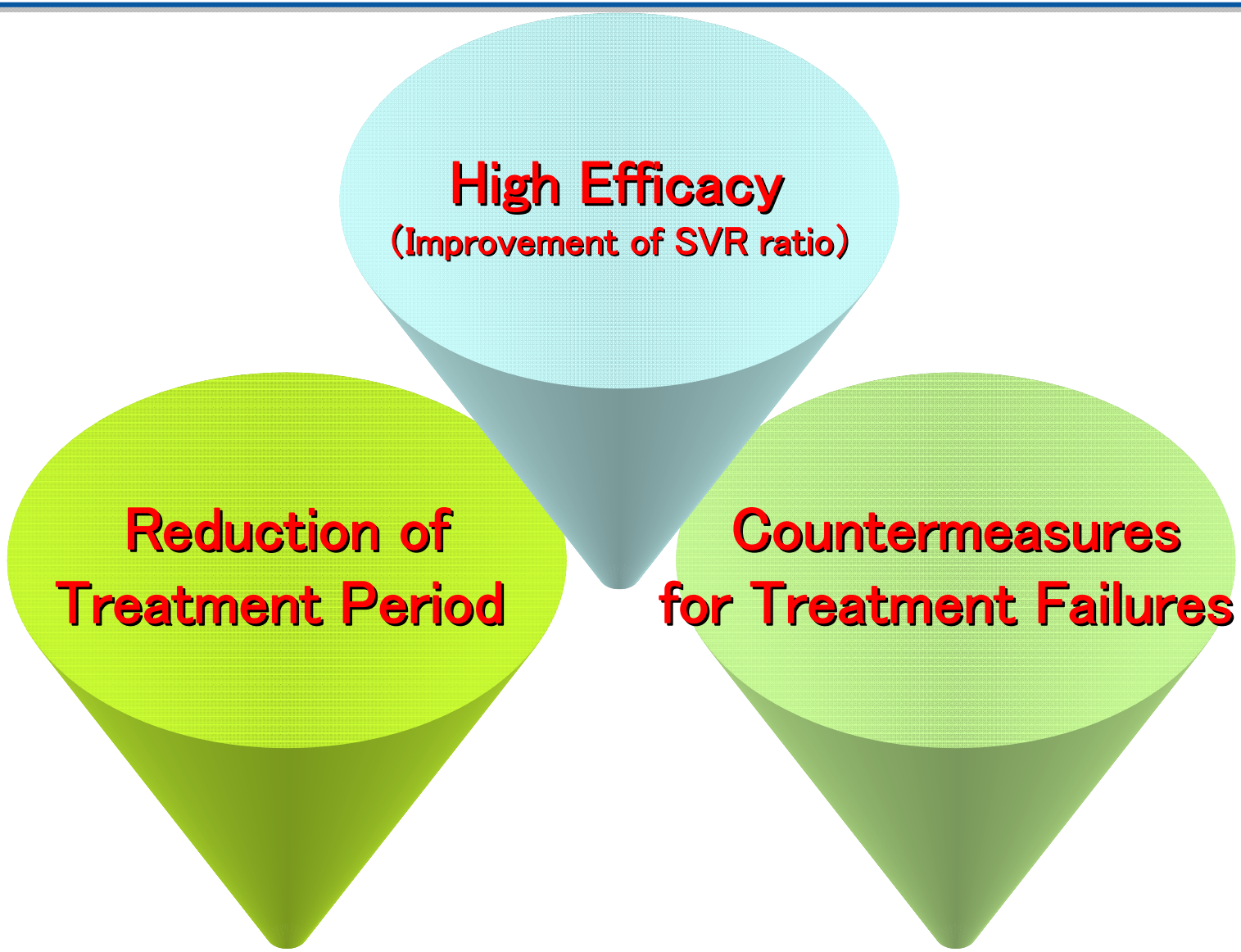
HCV Treatment Guide Line in 2010

Treatment for Relapsers

1. For who had high HCV level at the first treatment with IFN
   - Combination therapy of IFN (α or β) and RBV for from 48 to 72 weeks
2. For who had high HCV level, Type 1, at the first treatment with IFN and RBV, and HCV RNA negative for 36 weeks
   - Combination therapy of IFN and RBV for 72 weeks
3. For who had low HCV level and relapsers/ Non responders of IFN
   - Combination therapy of IFN and RBV

Dr. Kumada et al.; HCV Treatment Guide Line in 2010,

Development Concept of MP-424/Telaprevir



Clinical Results of Telaprevir

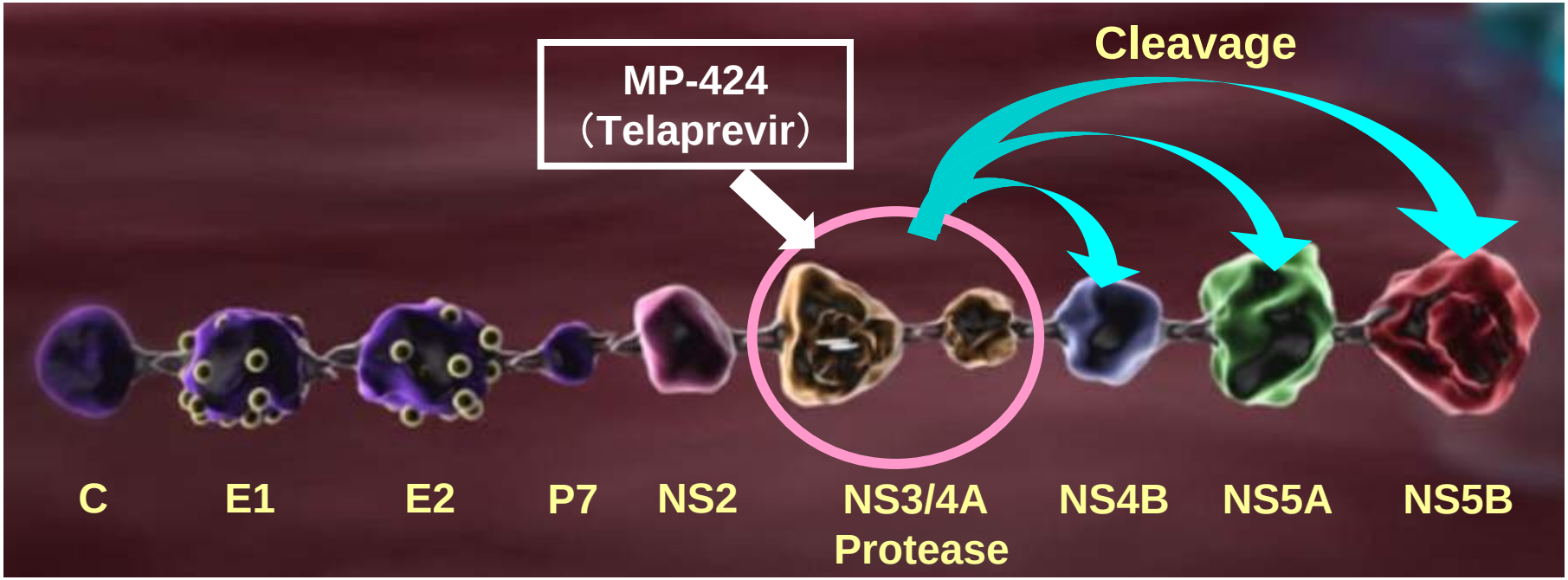
Outline of MP-424/ Telaprevir

【Indication】 Chronic Hepatitis C

【Mechanism of Action】 NS3/4A Protease Inhibitors

【Development Status】

Japan：Preparing for NDA
US： Completion of NDA（Vertex）
Europe： Preparing for NDA（Tibotec）



Kwong A, et al. *Drug Discov Today.* 2006;3(2):211-220.

Development Status of Oral HCV Drugs in the World

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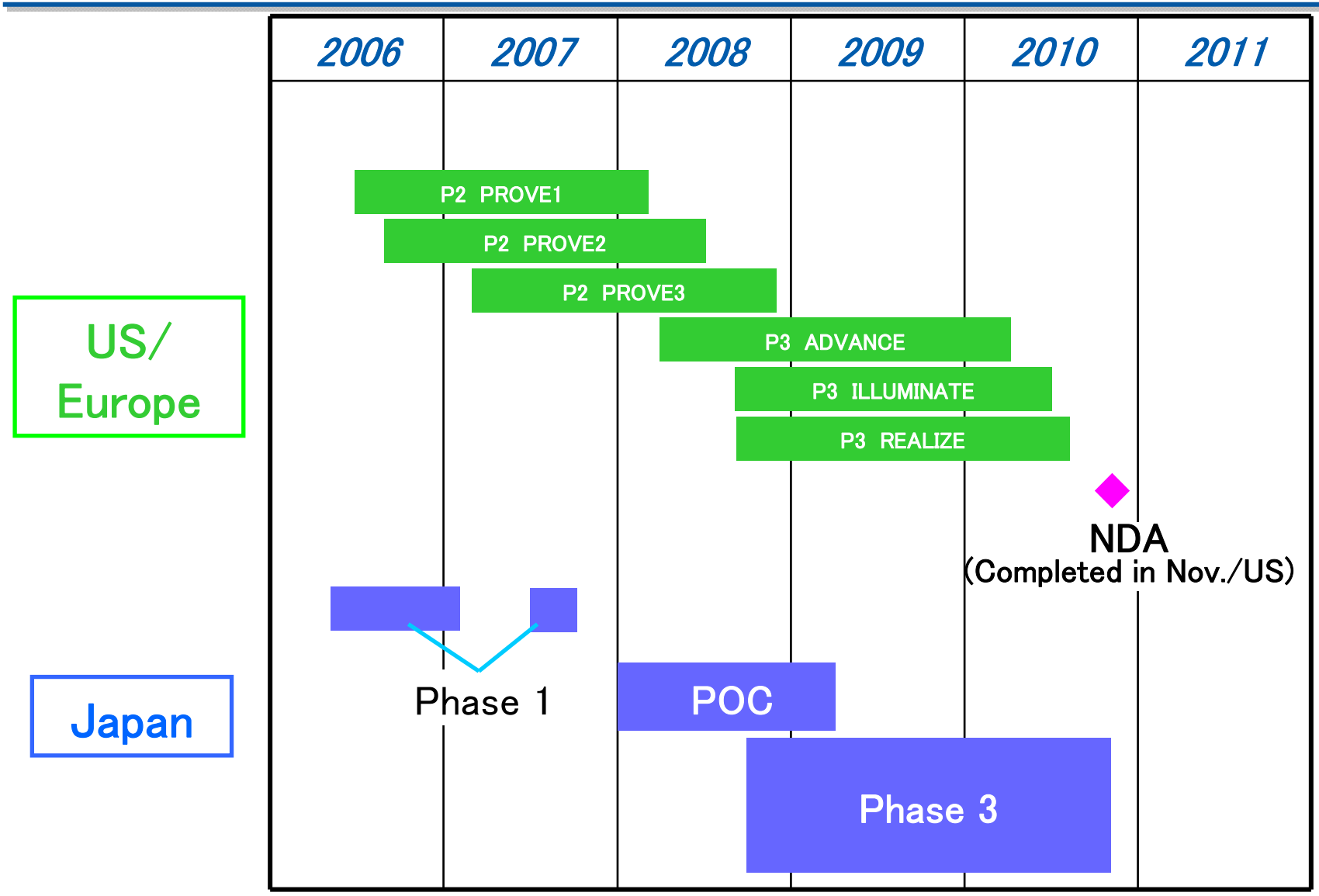
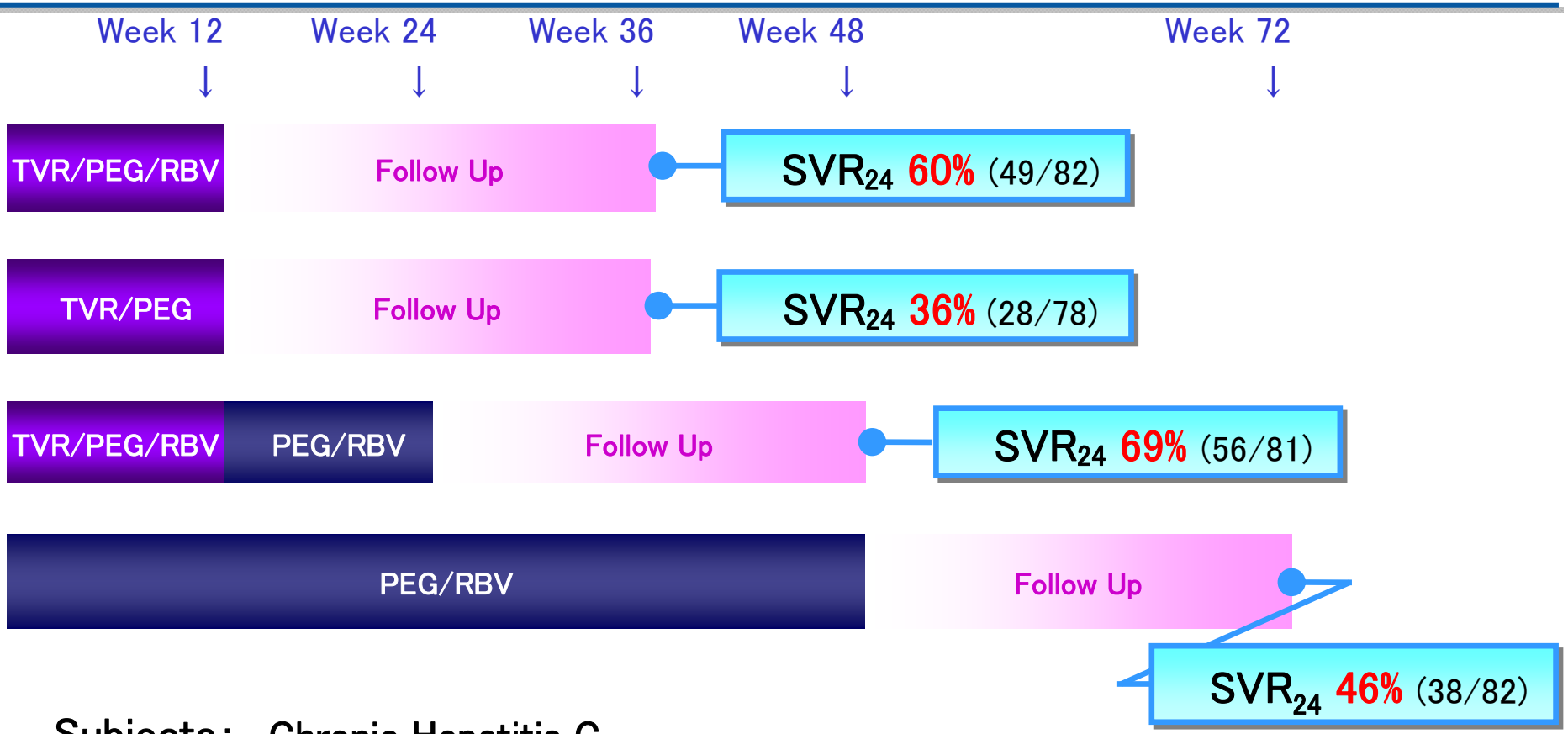
		Phase 2		Phase 3	NDA
NS3/4 Protease inhibitors		BI201335 Boehringer Ingelheim	MK-7009 MSD	Boceprevir MSD	Telaprevir Vertex/JNJ/MTPC
		BMS-650032 Bristol-Myers Squibb	SCH-900518 MSD		
		ITMN-191/R-7227 InterMune/Roche	TMC435 Tibotec/Medivir/JNJ		
NS5A inhibitors		BMS-790052 Bristol-Myers Squib b			
NS5B poly-merase inhibitors	Nucleoside	IDX184 Idenix	PSI-7977 Pharmasset		
		R7128 Pharmasset/Roche	PSI-938 Pharmasset		
	Non-nucleoside	GS-9190 Gilead	Filibuvir Pfizer		

ClinicalTrials.gov, AASLD2010 etc.

Development Schedule of Telaprevir



PROVE 2 Study Results

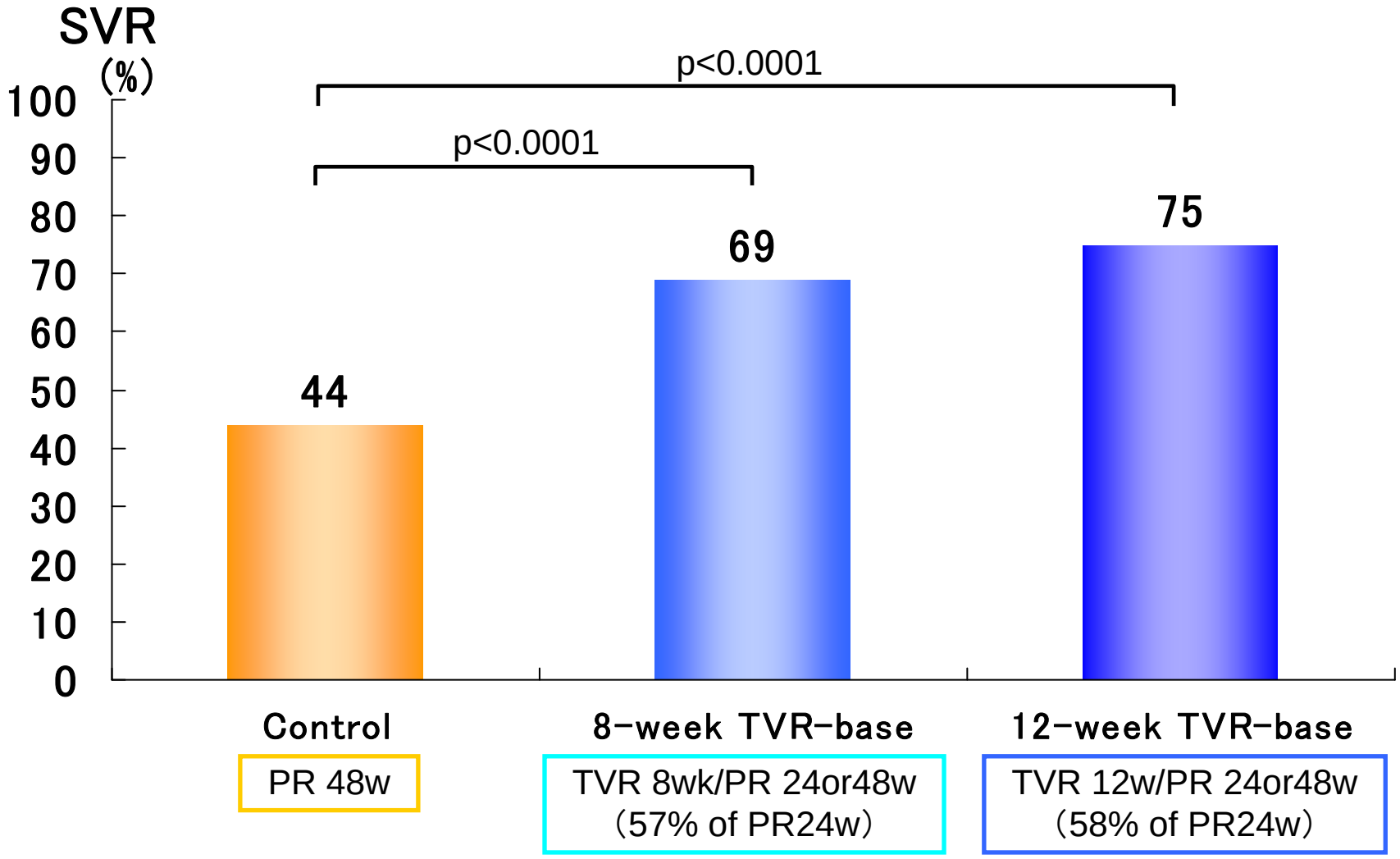


Subjects; Chronic Hepatitis C
(Genotype 1 , Treatment naive)

TVR : Telaprevir
PEG : Pegylated-interferon alfa-2a, RBV : Ribavirin
SVR24 : undetectable HCV RNA <10 IU/L at 24wk post-treatment

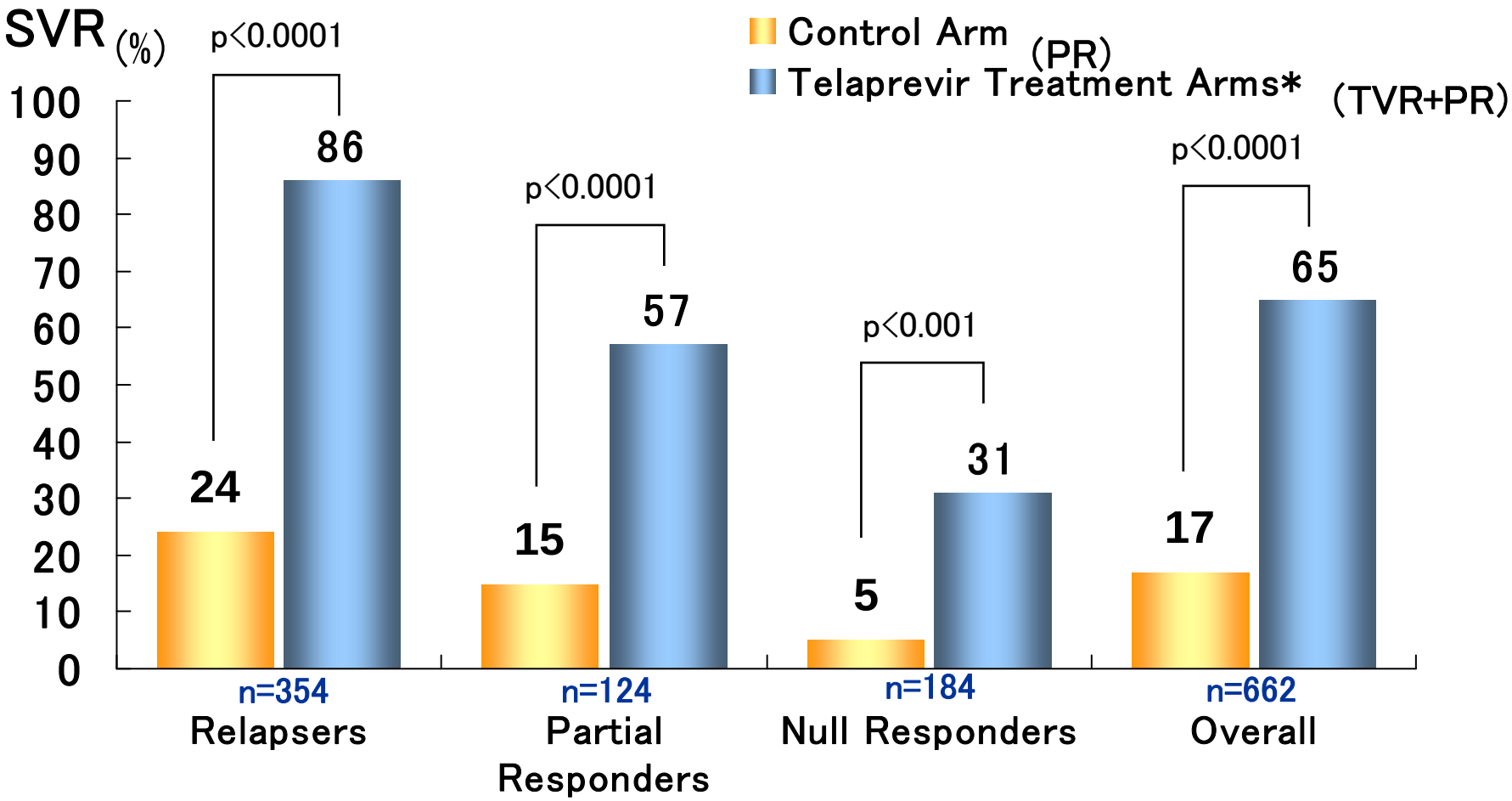
N Engl J Med 360:1839, April 30, 2009

ADVANCE Study Results



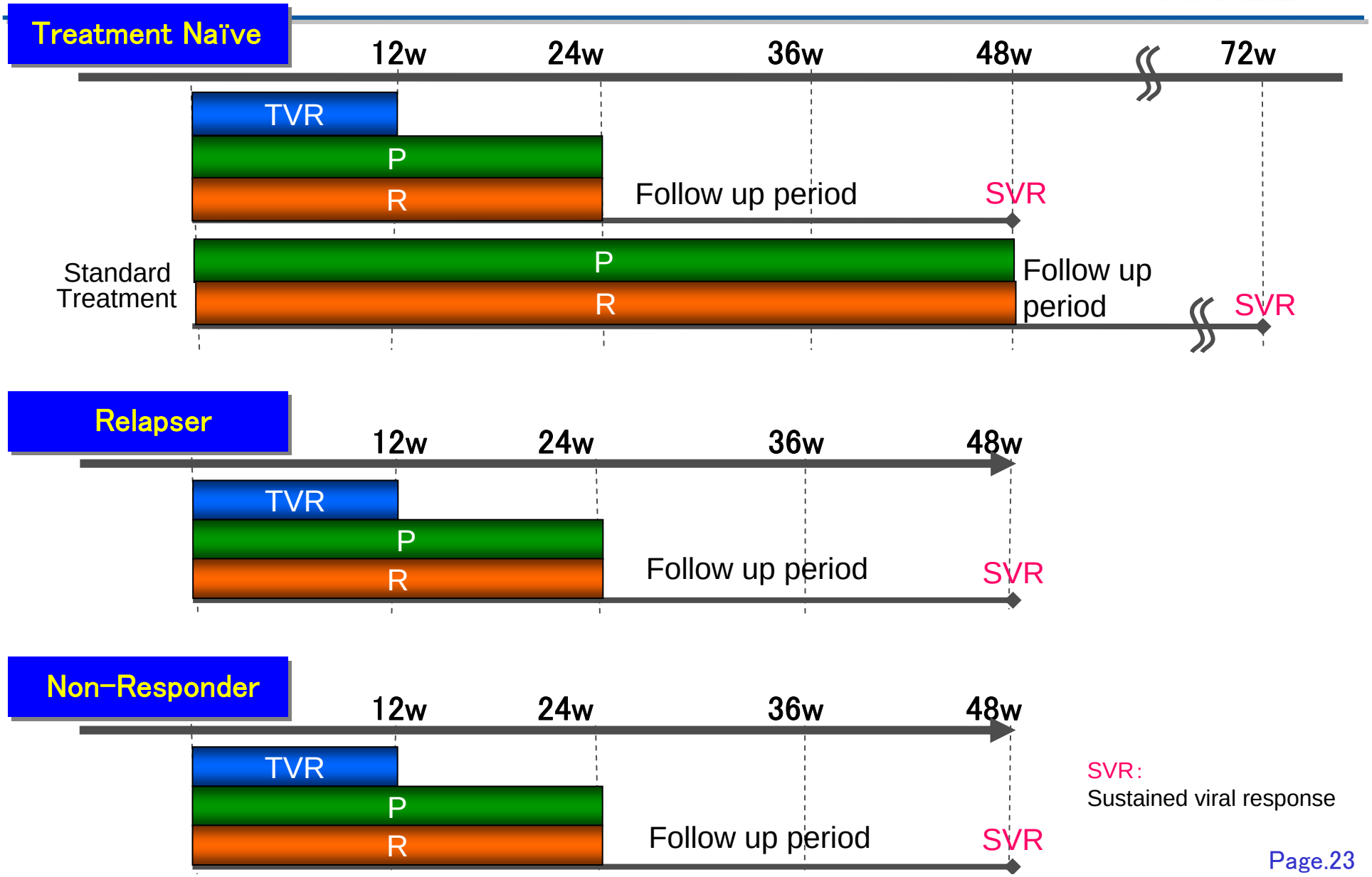
Ira M. Jacobson *et al*, AALSD2010

REALIZE Study Results



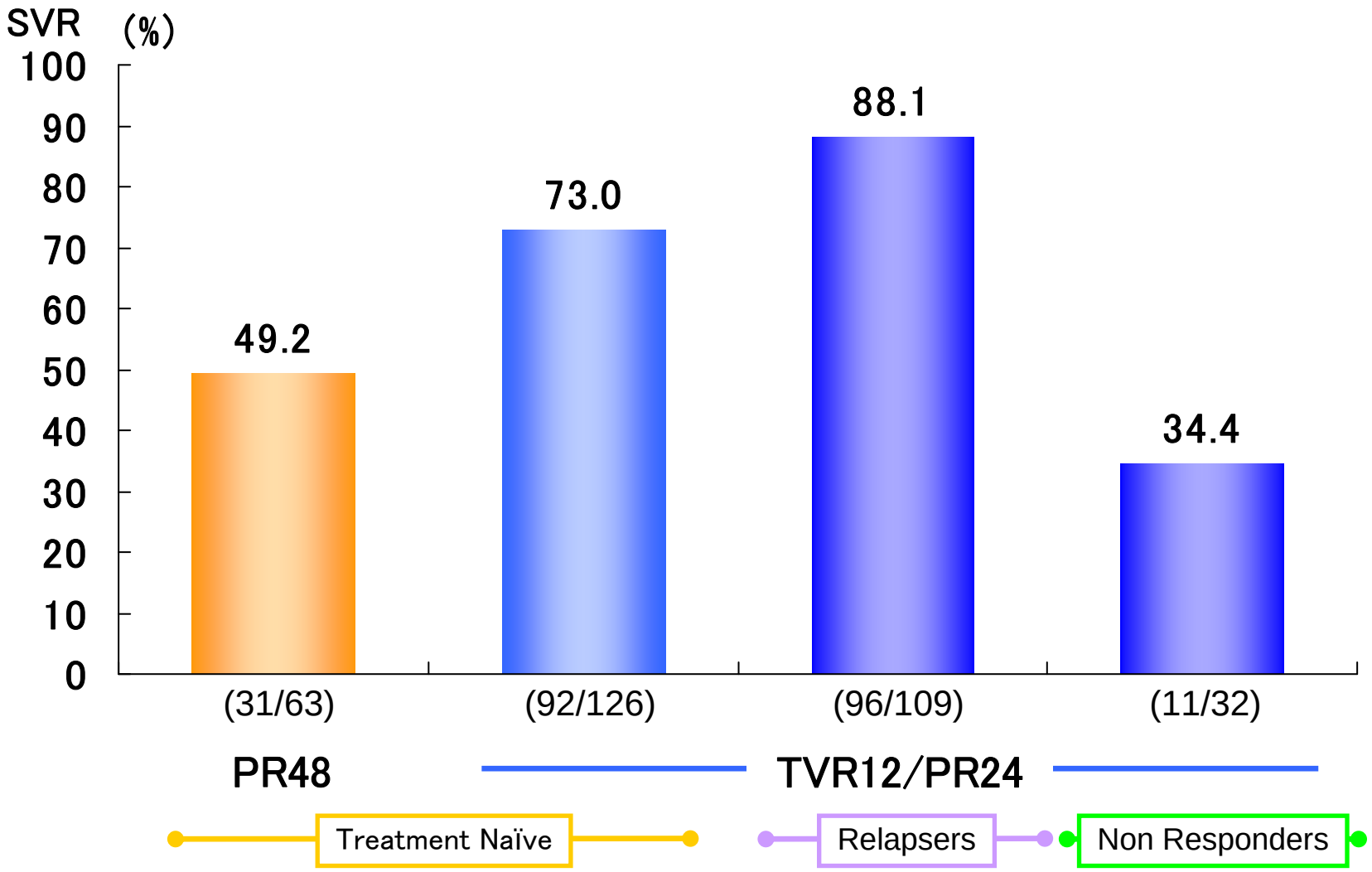
*Telaprevir Treatment Arms; Composite Analysis of 2 Groups

Phase 3 Design in Japan



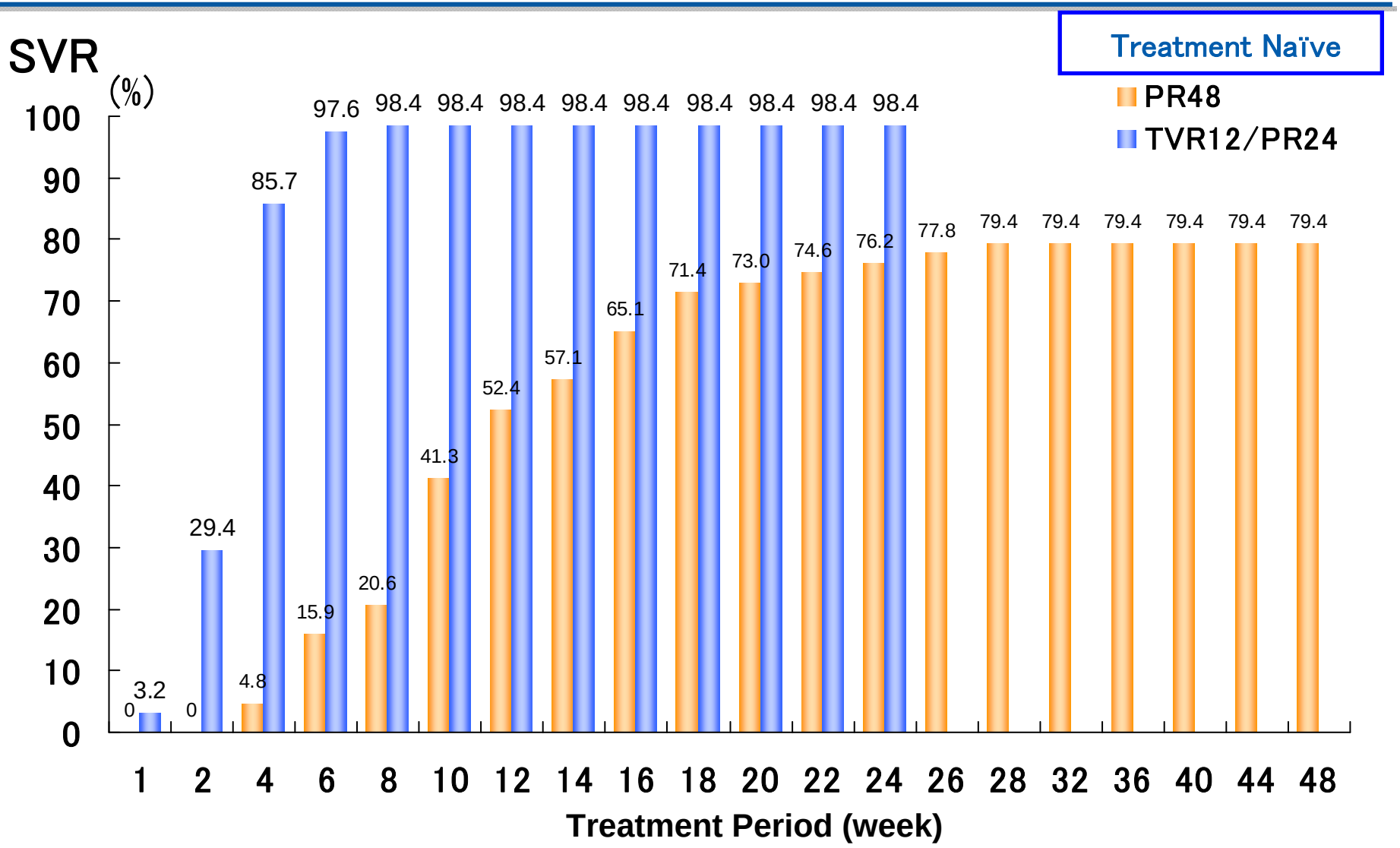
SVR:
Sustained viral response

SVR Ratio

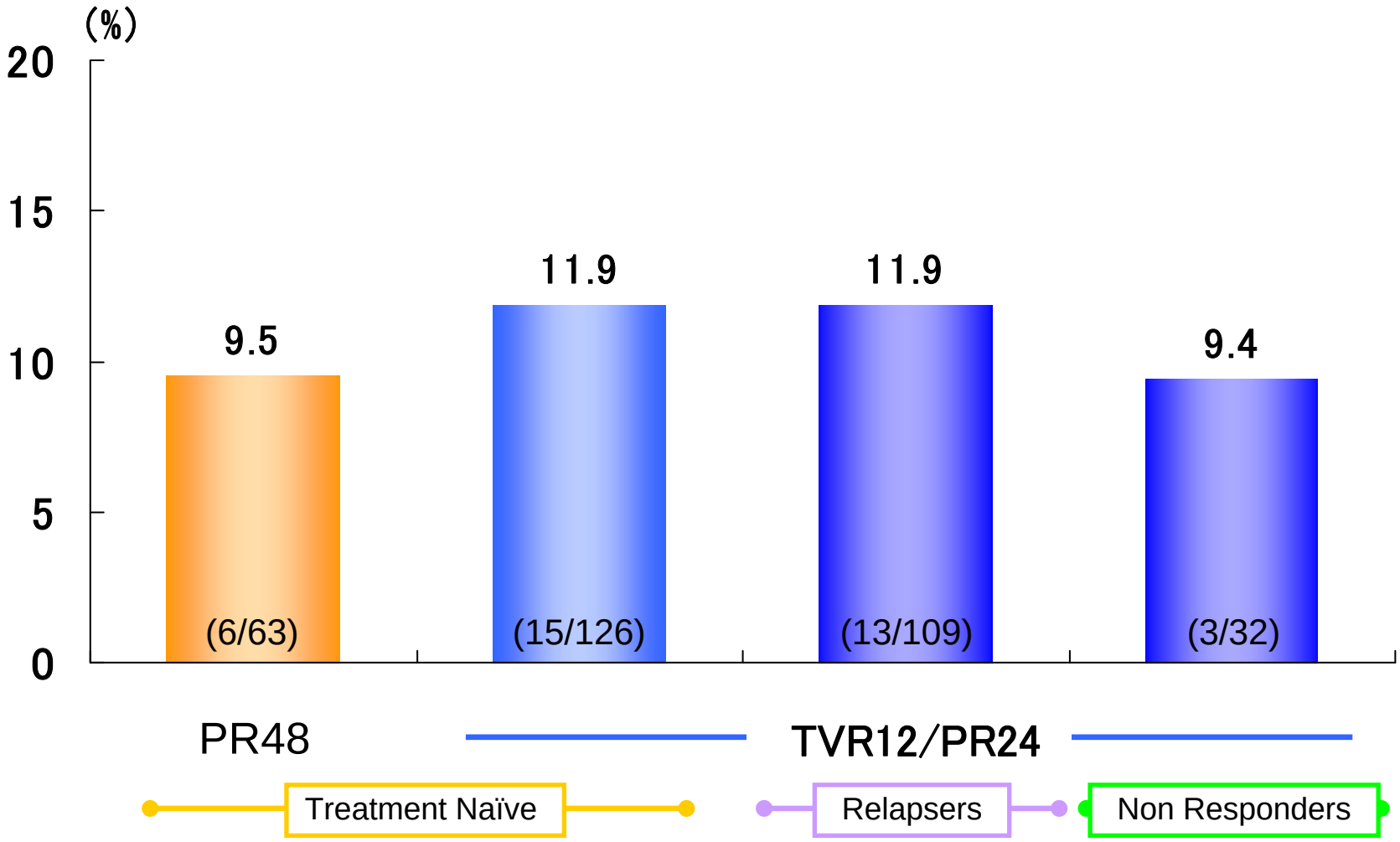


T：Telaprevir（MP-424）、**P**：Peg-IFN、**R**：Ribavirin

Accumulation Negative Ratio of HCV RNA



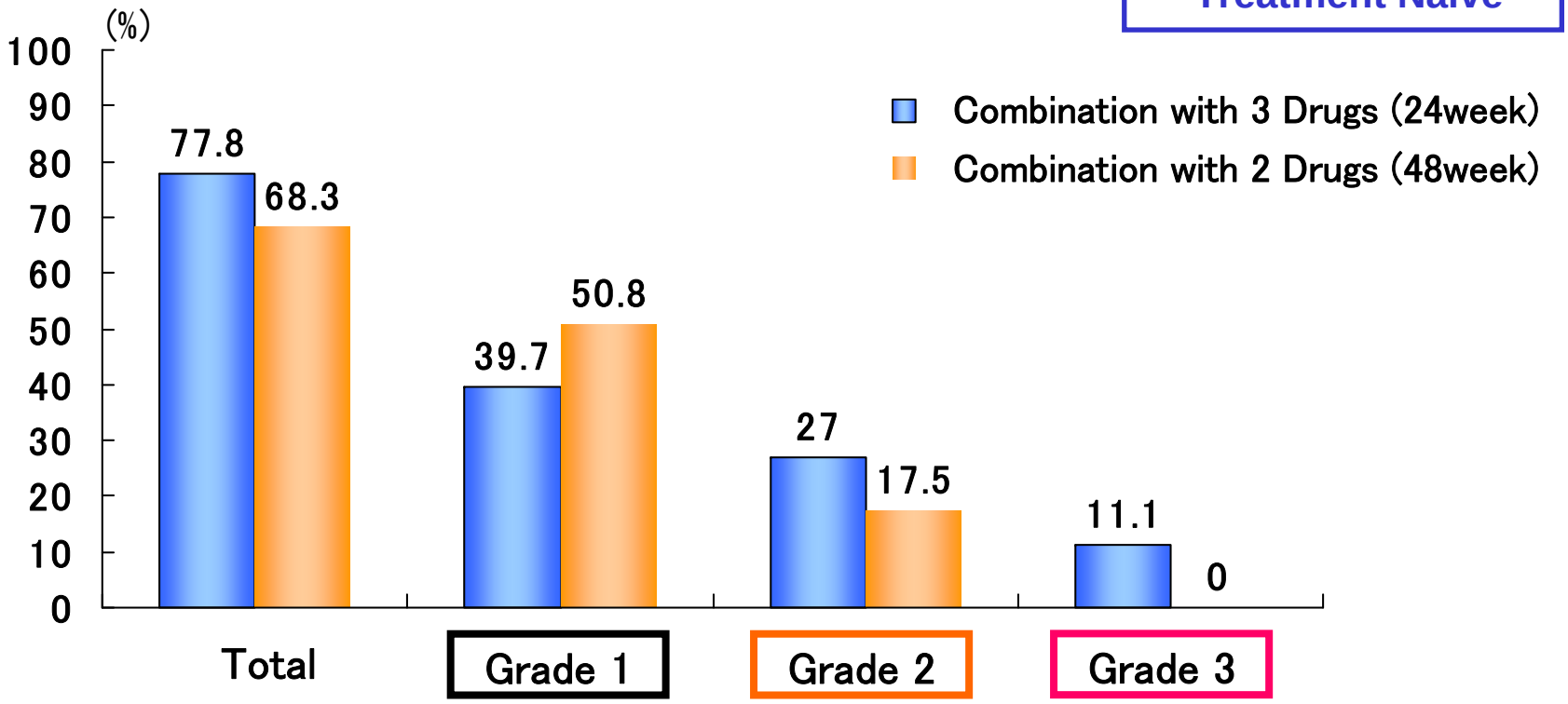
Ratio of Serious Adverse Events



TVR: Telaprevir(MP-424)、P:Peg-IFN、R:Ribavirin

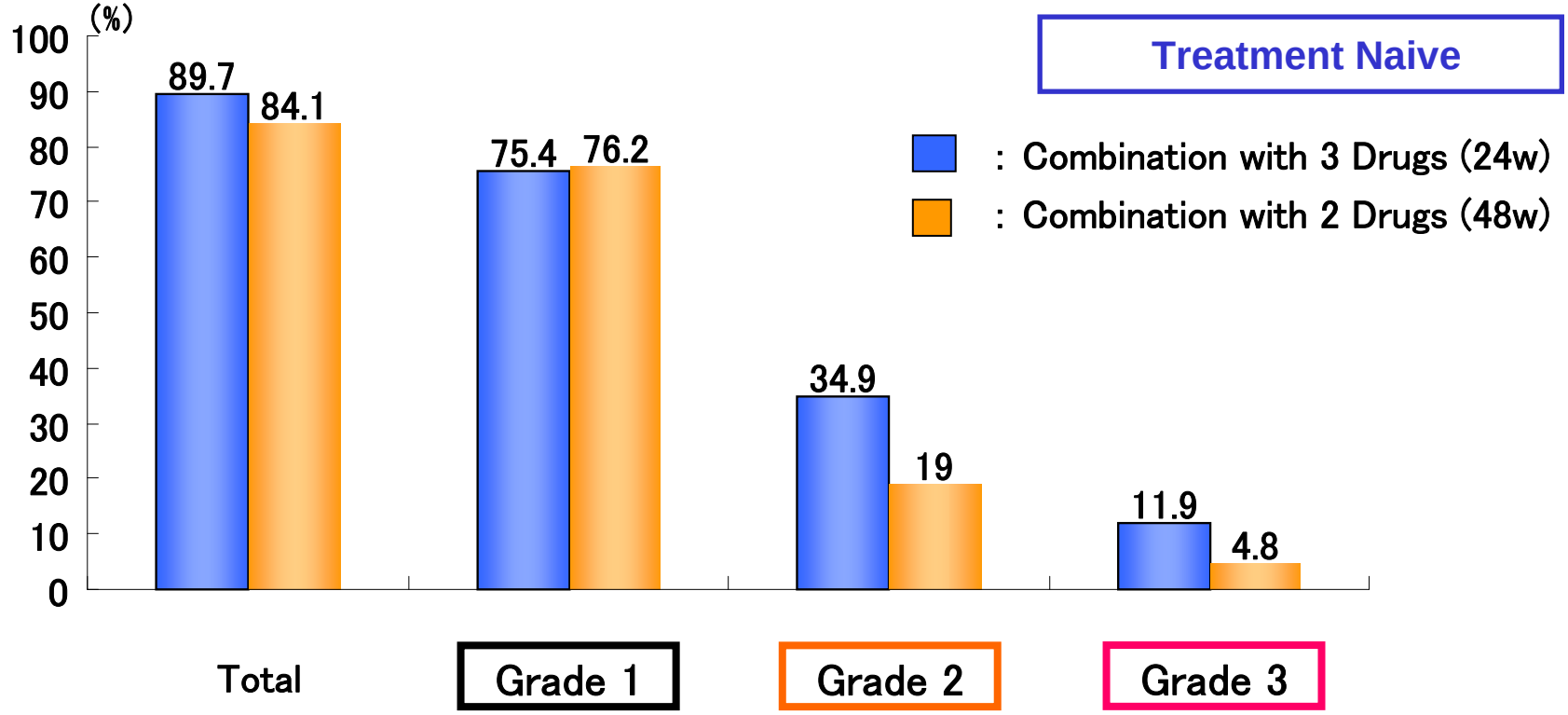
Ratio of Hemoglobin Reduction by Grades

Treatment Naïve



【Grade Standards of Hemoglobin Level】
Grade 1: more and 9.5, less than 11
Grade 2: more and 8, less than 9.5
Grade 3: less than 8

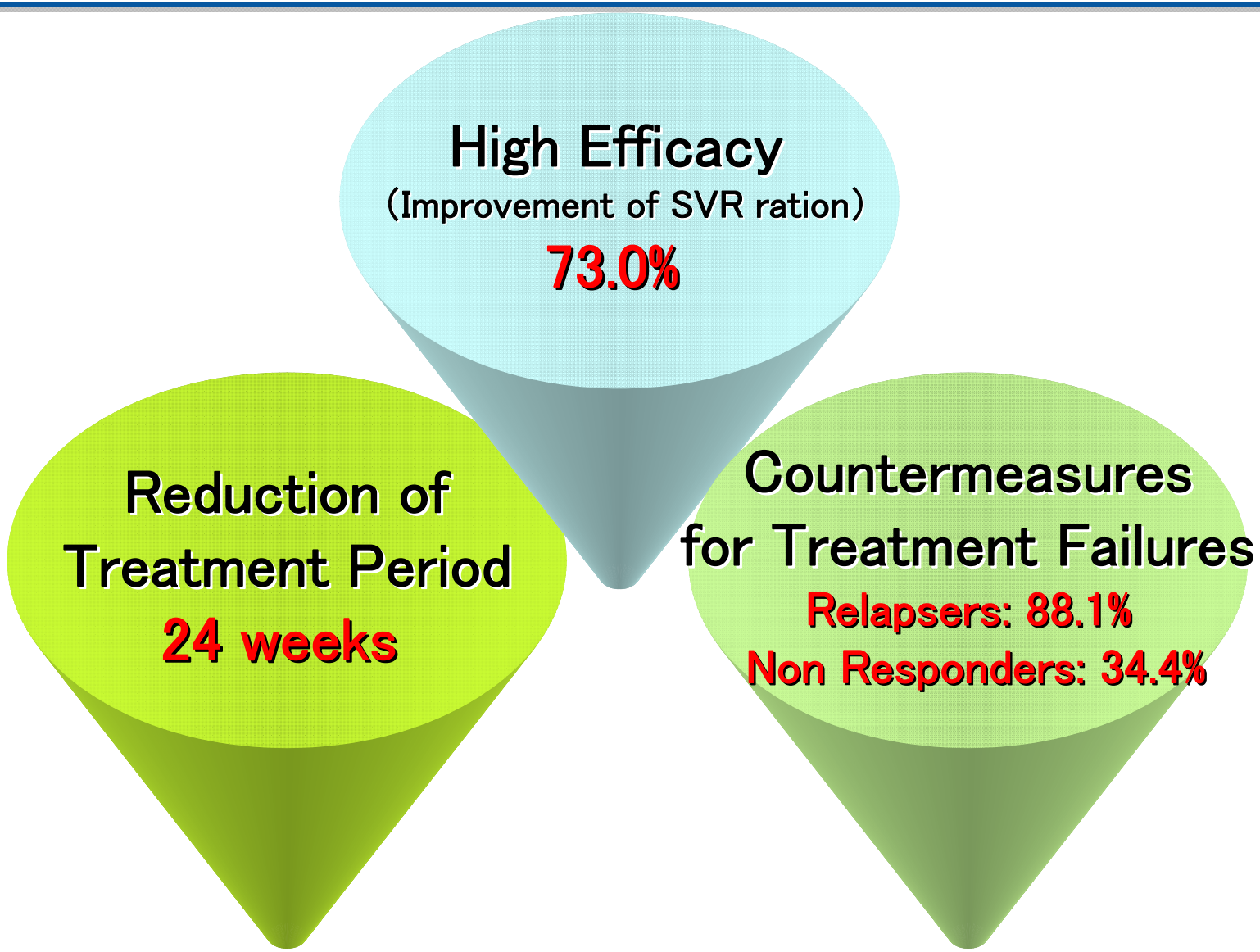
Ratio of Skin Manifestations



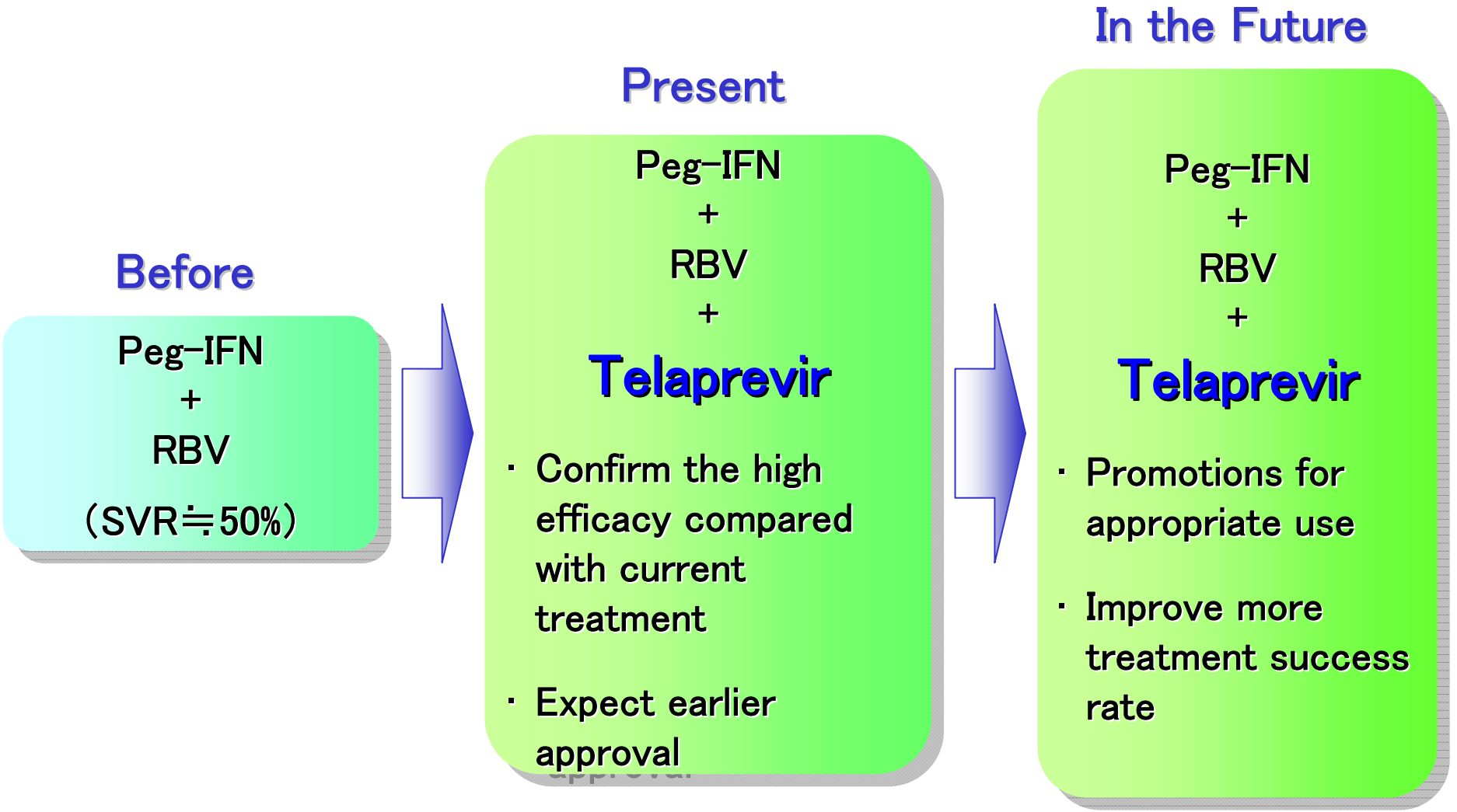
【Grade Standards of Skin Manifestatons】
Grade 1 : less and 50% of body surface area (localized)
Grade 2 : less and 50% of body surface area (multiple/ diffuse)
Grade 3 : more than 50% of body surface area (ulcer/ diffuse of mucosa, excoriation, pathological change, blister, purpura with invasive skin manifestation, SJS[1)], TEN,[2)] DIHS[3)], EM[4)]

1); Stevens-Johnson Syndrome 2); Toxic Epidermal Necrolysis , 3); drug-induced hypersensitivity syndrome , 4); erythema multiforme

Development Concept of MP-424/Telaprevir



The Past, Present and Future Expectations and Efforts



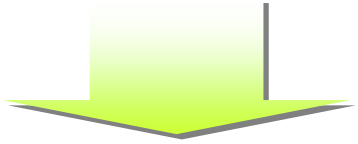
Promotions for Appropriate use of Telaprevir

Promotions for Appropriate use of Telaprevir

■ The countermeasures against examined major adverse events which were observed during the POC study
⇒ AEs are reduced in Phase 3

Introduced Management Program for Adverse Events

■ Telaprevir would be used more safely by promoting appropriate use after marketing.



As a result, the continuity ratio of compliance for the treatment period and higher efficacy are expected.

Management Program 1

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Countermeasures against Anemia and Hemoglobin Reduction

- Control of RBV dosage and use;

  (P3 Study; Protocol)

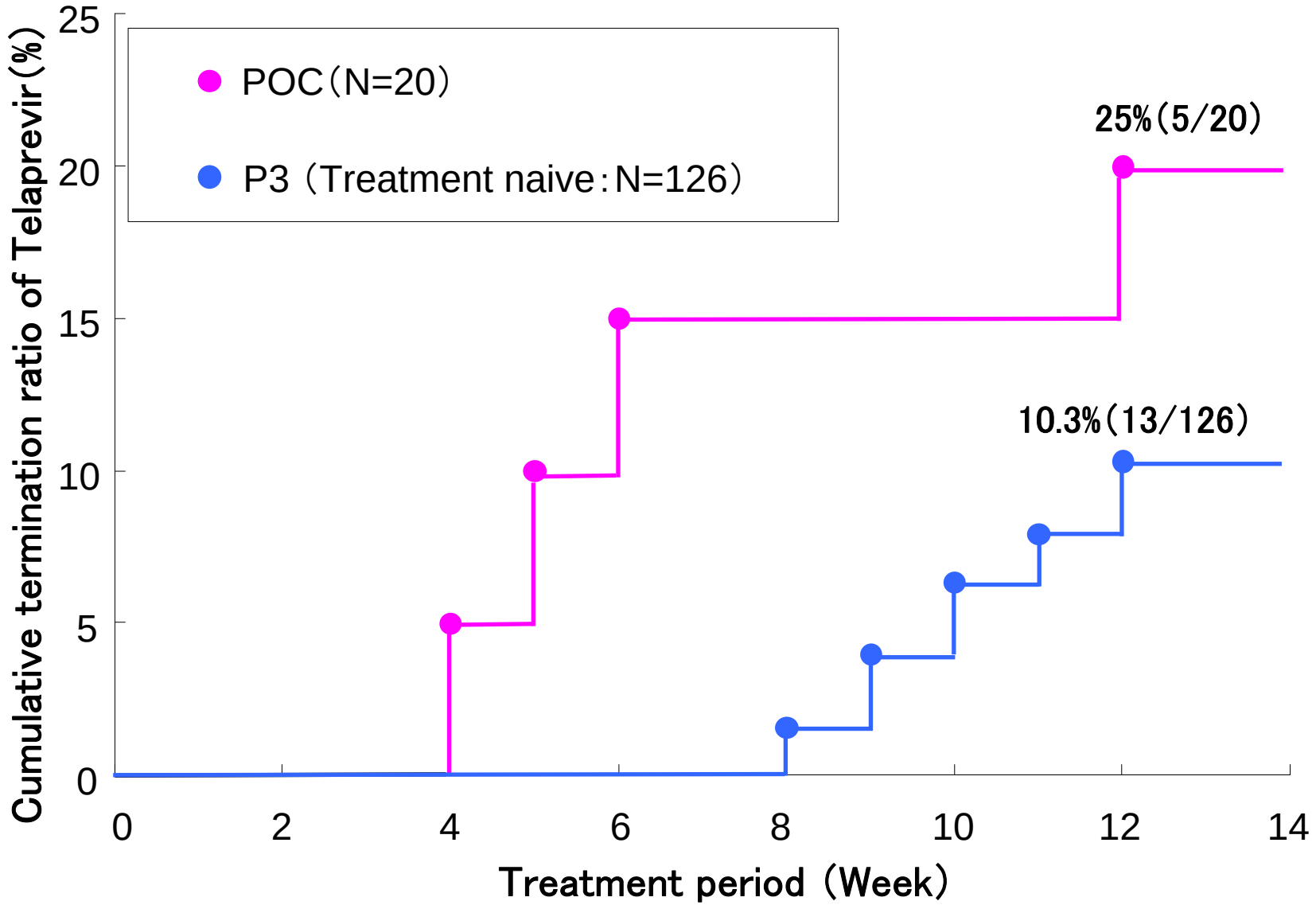
  - Before the treatment;

    In case that Hemoglobin level is under 13g/dL before treatment, reduce RVB dosage for the treatment

  - During the treatment;

    1. If the hemoglobin level reduce under 12g/dL during the treatment, start the reduction of RBV dosage
    2. If the hemoglobin reduce 1g/dL or more within 1 week, and the level under 13g/dL, reduce RBV dosage

Terminate ratio of Telaprevir which was caused by Hemoglobin level reduction



Management Program 2

Countermeasures against Skin Manifestation

- Consult to dermatologists;
  - Consult to dermatologists when any skin manifestation event occur
- Cooperation with hepatologists and dermatologists
  - Evaluate patients risk & benefit, and decide the follow up treatment policy
  - As a basic policy, terminate the administration of Telaprevir in case that grade 3 skin manifestation event occurs
- In case of serious skin manifestation event , terminate the administration
  - Immediately terminate every drug administrations, in case of any suspicious symptom examined to avoid any serious skin manifestation events such as SJS, DIHS.
- Follow the general treatment policy for the skin manifestation (anti allergic drugs, steroid external medicines etc.).
  - In case of serious cases, early systemic administration of steroids could be one of the choice for the treatment.

Improvement of Treatment Success Ratio

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Possibilities of SVR rate improvement

Possibilities of Improvement of “Treatment Failures”

Treatment Success Rate

- Data from Vertex, Study 107, proved SVR 56% for TVR12/PR48 treatment

＊：Vertex Press Release 2010/4

Expansion of Development Area; HCV Treatment in China

Estimated number of patients in China

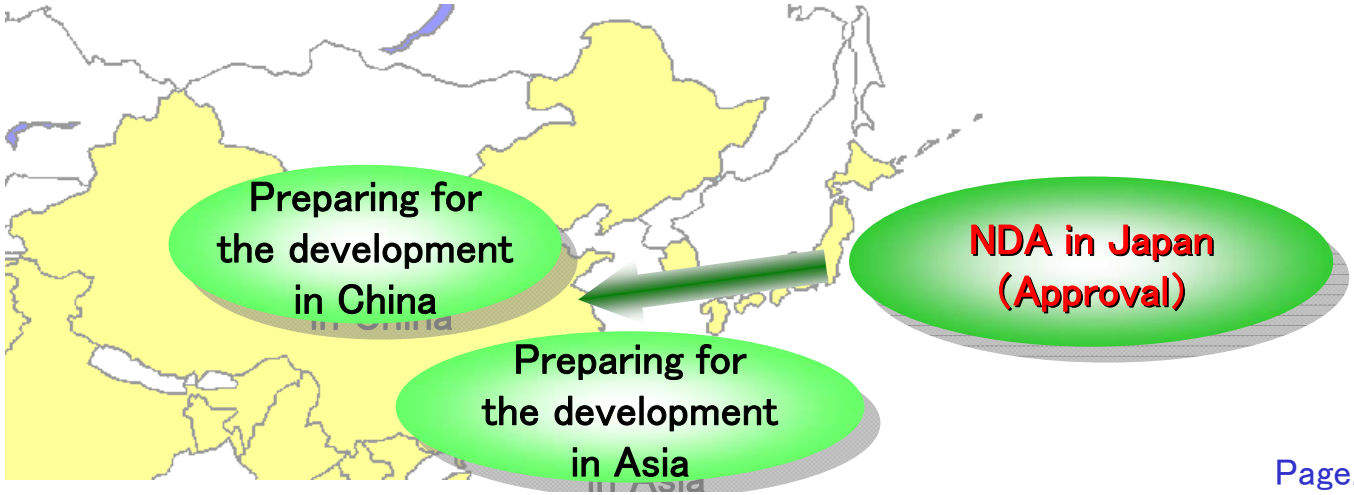
HCV carrier ≒ 43 million

Genotype 1 ratio is high in HCV infected patients

IFN treatment ≒ 30,000 to 40,000 patients
(rapidly increasing, about 10,000 patients are treated by branded IFN)

Standard treatment in China

Combination of Peg-IFN and RBV(48 week)
～same treatment to US/EU and Japan



FTY720

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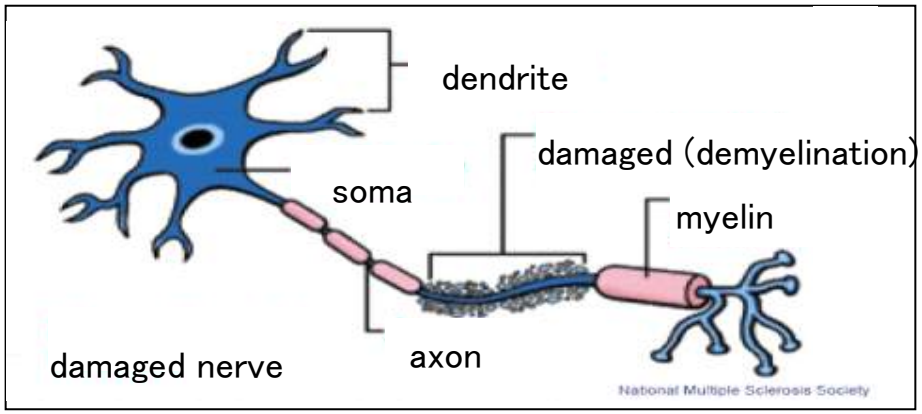
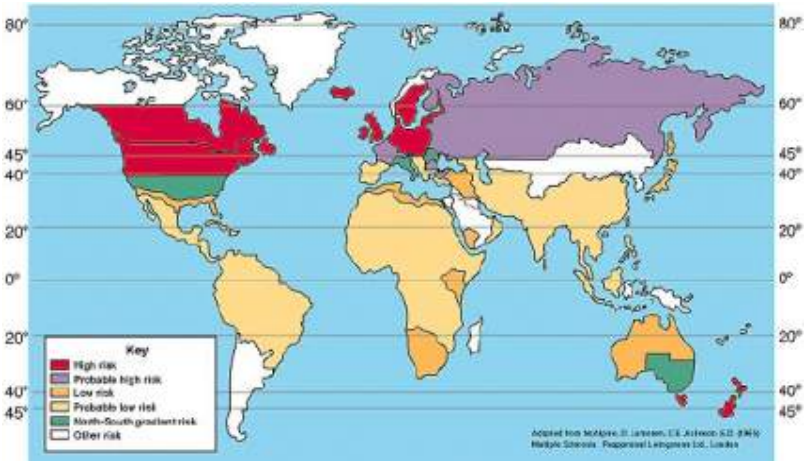
- Multiple Sclerosis and Mechanism of Action
- Results of Clinical Trials
- Development Status

Multiple Sclerosis (MS)





MS has more female patients than male and it develops in the broad age group with a peak of her 30's and the disease rate is high in North Europe and North America.
MS is a unidentified central nervous system chronic inflammatory demyelinating disease to which the myelin sheath of neuronal cell in brain, spinal cord and optic nerve is attacked posteriori by the infiltration of lymphocyte.

【Major clinical symptoms】: sensory disturbance, neuropathy, cognitive imparement, urination disorder, psychological disorder

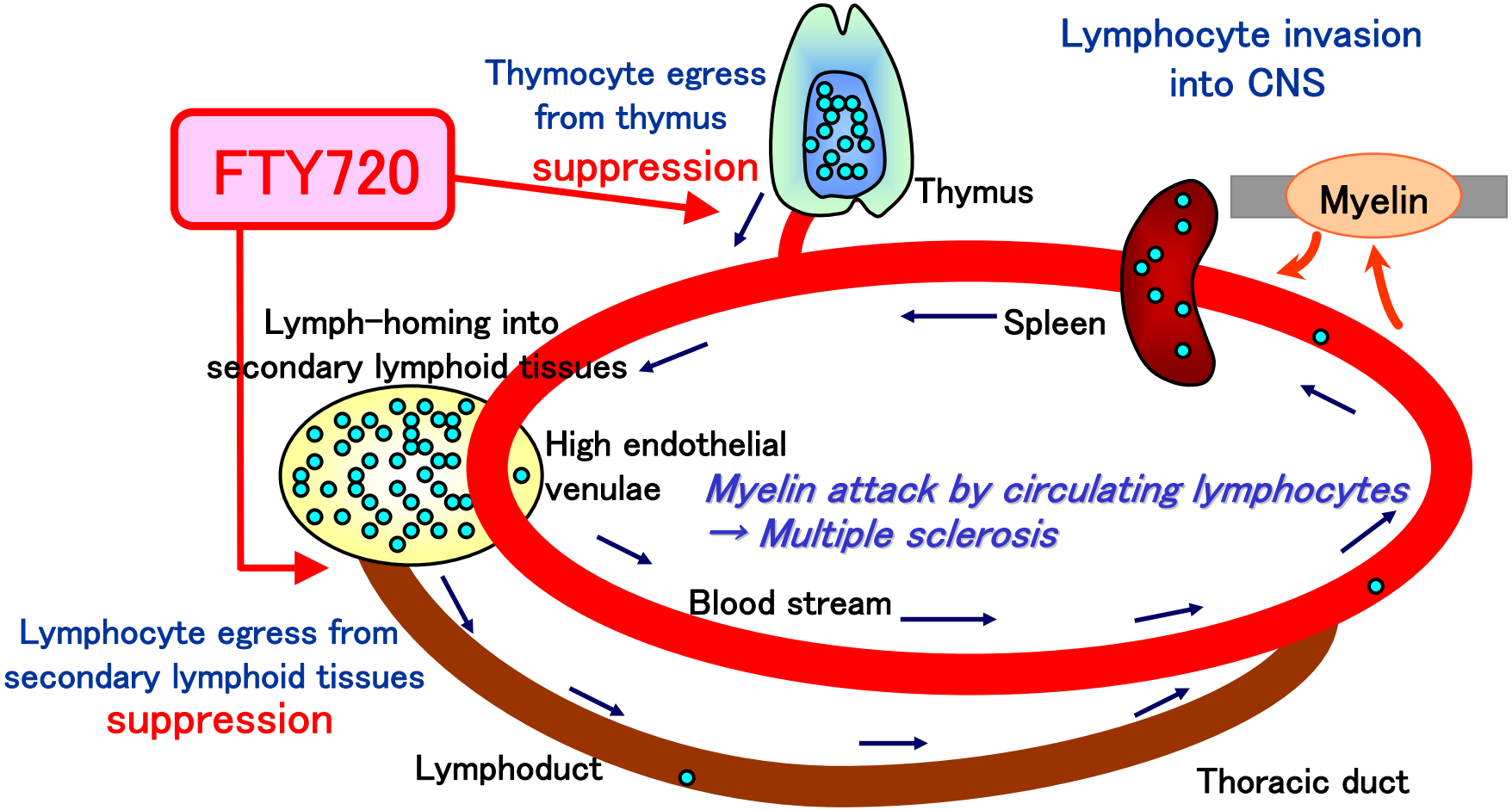
【Current treatment】: Injection only

Symptomatic treatment; steroids pulse treatment

Prevention of relapse・inhibition of progress; IFN products, Glatilamer acetate, Anti-alpha-4 integrin monoclonal antibody

Drug in Blue; Not approved in Japan

Mechanism of FTY720



The effect of the demyelination and infiltration of CD4 T cells in the spinal cords in EAE mice.

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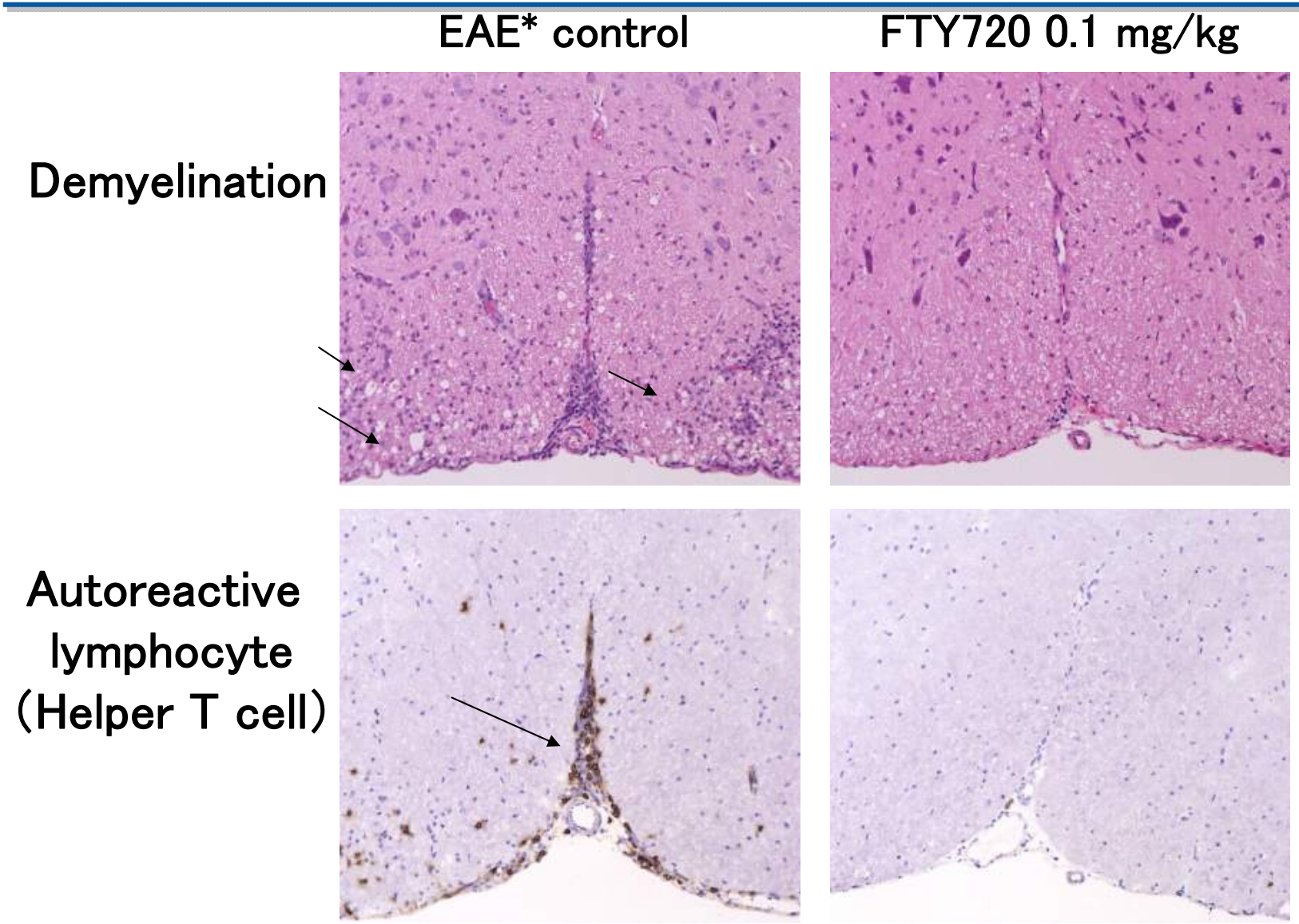
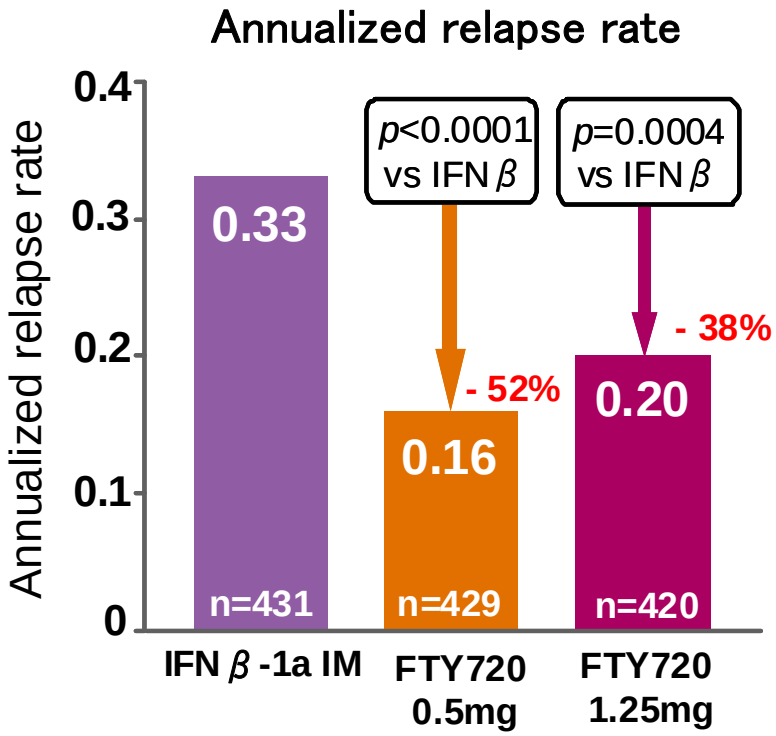


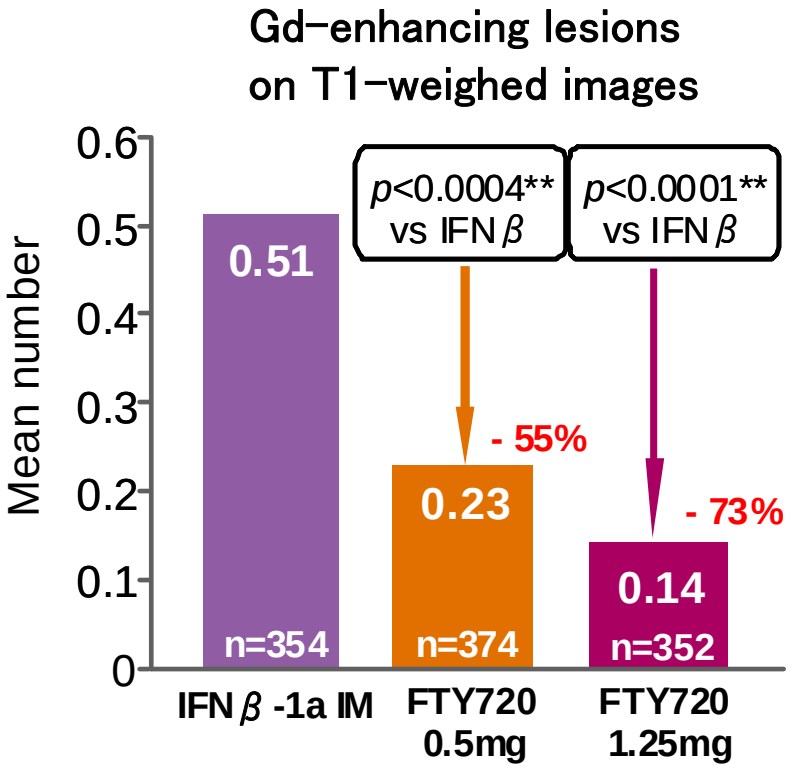
Chiba K. et al. Int Immunopharmacol In press (2010)

* Experimental Autoimmune Encephalomyelitis

TRANSFORMS Results

FTY720 vs. IFNβ-1a, 12M

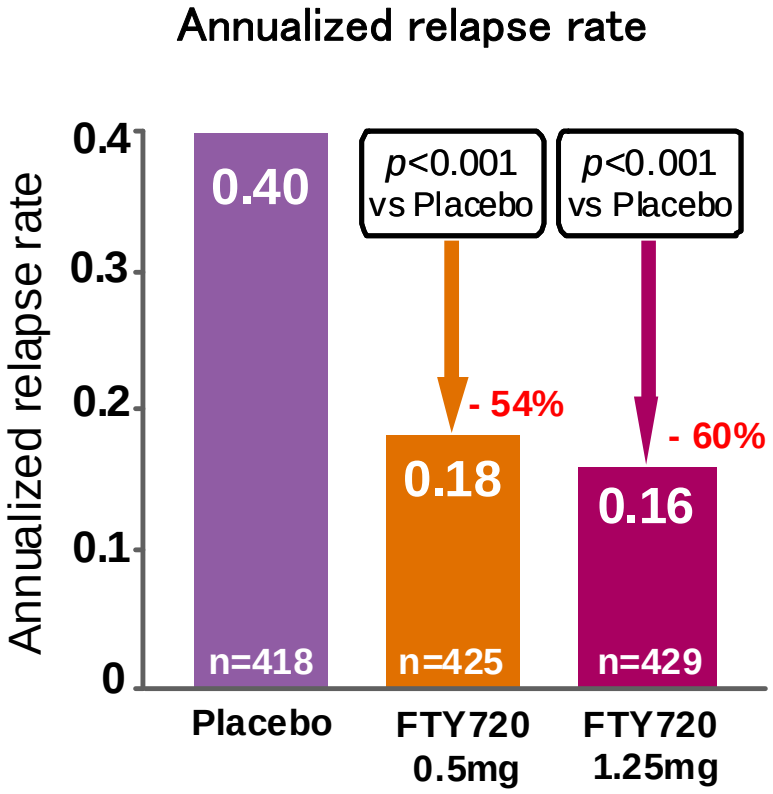


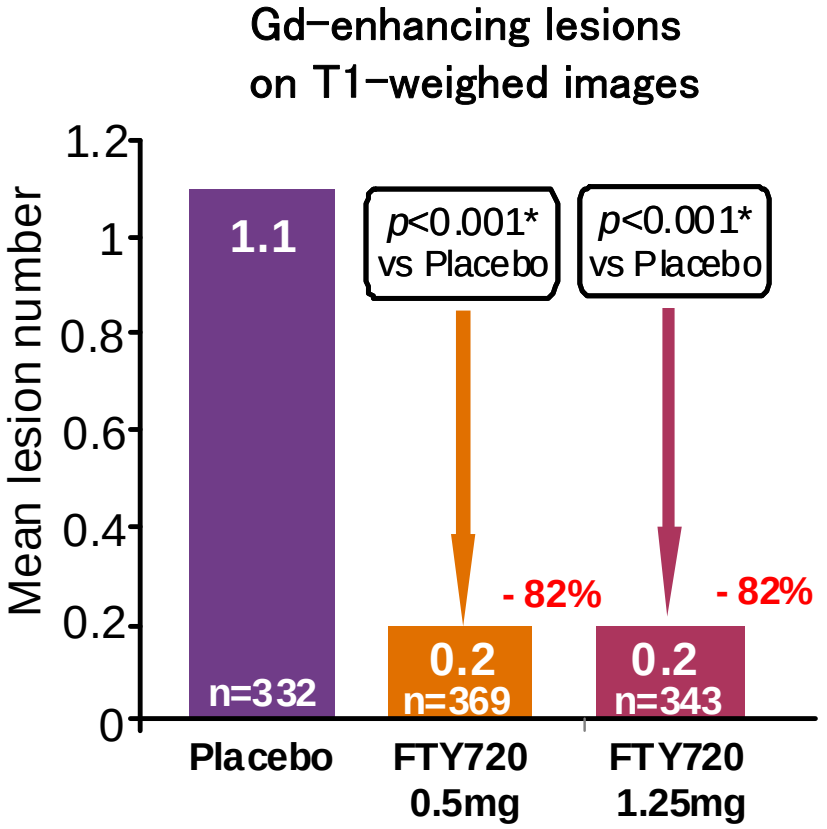


Cohen, J.A. et al. N. Engl. J. Med., 362, 402 (2010)

FREEDOMS Study Results

FTY720 vs. Placebo, 24M





Kappos, L. et al. N. Engl. J. Med., 362, 387 (2010)

Development Status : NDA and Approval

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Indications : treatment of patients with relapsing forms of multiple sclerosis to reduce the frequency of clinical exacerbations and to delay the accumulation of physical disability

Dosage and Administration : 0.5mg hard capsules, orally once daily

Overseas : Licensed out to Novartis Pharma AG

October, in 2010 : US Approved and Launched

Q4, in 2010 : Expected Switzerland Approval

Q1, in 2011 : Expected EMA Approval

Expected UK & Germany Launch

Japan : Co-Development with Novartis Pharma K.K.

P2 study completed, acquire expected results

December in 2010 : Planned NDA

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Cautionary Statement

The statements contained in this presentation is based on a number of assumptions and belief in light of the information currently available to management of the company and is subject to significant risks and uncertainties. Actual financial results may differ materially from these forecasts depending on a number of important factors.