Mitsubishi Tanabe Pharma

Mitsubishi Tanabe Pharma Corporation

Progress and Future of Development Pipeline

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Board Director,
Executive Officer
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Deutsche Securities, Inc.
Japan Pharmaceutical Conference 2011
September 22, 2011
CONRAD TOKYO

Corporate Strategy in R&D

- **Clear product distinction in Japan/the U.S. and Europe**
  - **Specialty and primary in Japan**
  - **Specialty in the U.S. and Europe**

- **Good balance between in-house products and licensing-in/out products**
  - **Establishment of the robust pipelines utilizing alliances**

- **Manifestation of prioritized fields**
  - **Current prioritized fields: Metabolism and Circulation**

⇒Establishment of New Medium-Term Management Plan 2011-2015 (To be released in this October)

Review of the Medium-Term Management Plan 08-10 (Domestic)

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Pipeline in Japan

Development code /Product name (Generic name)	Category	Indications	Phase: Ph1 / Ph2 / Ph3 / NDA Filed / Approved
Remicade (Infliximab [recombinant])	Anti-TNF α monoclonal antibody	RA: Dose escalation	
		Psoriasis	
		Ankylosing spondylitis	
		Ulcerative colitis	
		Crohn's disease:Dose escalation	Approved in 2011/08
Simponi (Golimumab)	Anti-TNF α monoclonal antibody	RA	Approved in 2011/07
		Ulcerative colitis	
Telavic (Telaprevir)	NS3-4A protease inhibitor	Chronic hepatitis C	Filed in 2011/01
Imusera (Fingolimod)	Sphingosine-1-phosphate receptor modulator	Multiple sclerosis	Filed in 2010/12
MP-513 (Teneligliptin)	DPP4 inhibitor	Type 2 Diabetes mellitus	Filed in 2011/08
TA-7284 (Canagliflozin)	SGLT2 inhibitor	Type 2 Diabetes mellitus	

Licensing-in

Development code /Product name (Generic name)	Category	Indications	Phase: Ph1 / Ph2 / Ph3 / NDA Filed / Approved
Lexapro (Escitalopram)	Selective serotonin reuptake inhibitor	Depression	Approved in 2011/04

Review of the Medium-Term Management Plan 08-10 (Overseas)

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Pipeline Overseas US:Europe (In-house)

Phase

Development code /Product name (Generic name)	Category	Indications	Ph1	Ph2	Ph3	NDA Filed	Approved	
MCI-196 (Colestilan(INN))	Non-absorbed phosphate binder	Hyperphosphatemia			◇			
MP-146	Uremic toxin adsorbent	Chronic kidney disease			◇			

Pipeline Overseas US:Europe (Licensing-out)

Phase

Development code /Product name (Generic name)	Category	Indications	Ph1	Ph2	Ph3	NDA Filed	Approved	
FTY720／Gilenya (Fingolimod)	Sphingosine-1-phosphate receptor modulator	Multiple sclerosis					◇ Approved in 2010/09(US), 2011/03(Europe)	Novartis Pharma
TA-1790 (Avanafil)	PDE5 inhibitor	Erectile dysfunction			→ Filed in 2011/01(Korea),2011/06(US)			Korea; JW Pharmacutical US:Vivus
TA-7284 (Canagliflozin)	SGLT2 inhibitor	Type 2 Diabetes mellitus			◇			Johnson & Johnson

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Immunology & Inflammation

- ✓ *Simponi（RA）*
- ✓ *Telavic (Chronic hepatitis C)*
- ✓ *Imusera (Multiple sclerosis)*

Simponi

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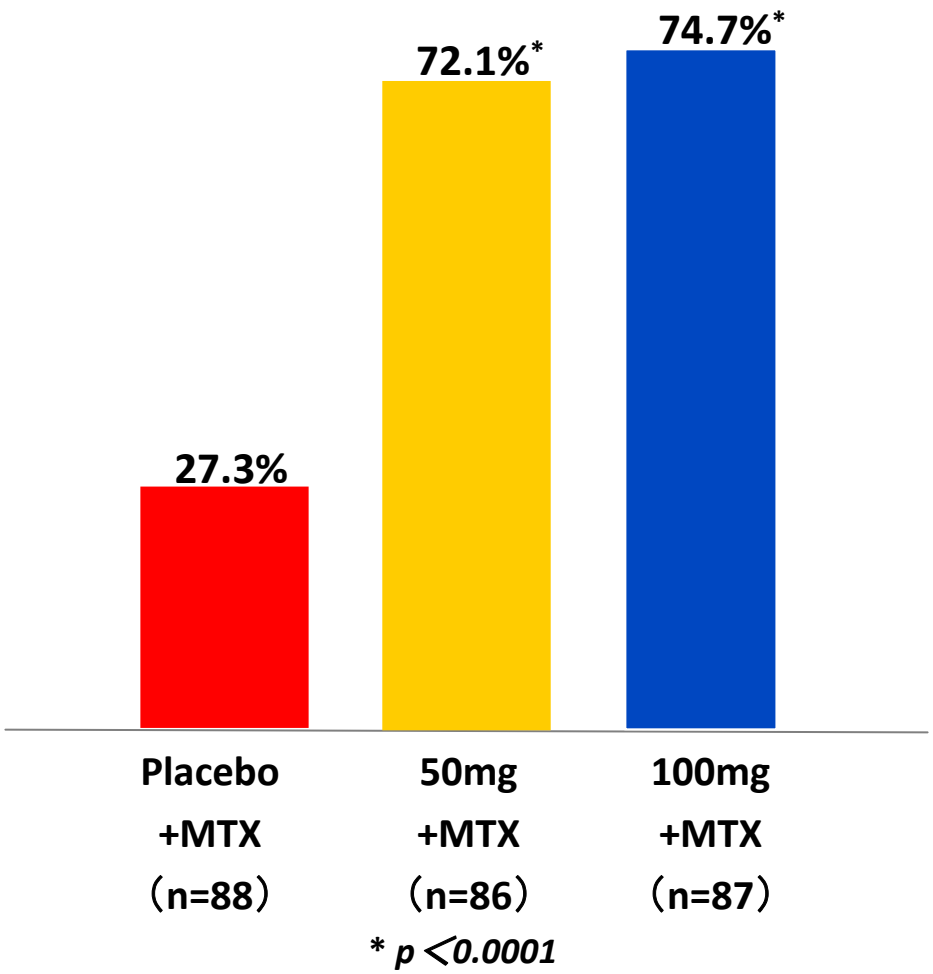
Project	Contents			
Simponi (Golimumab)	Mechanism	Anti-TNF α monoclonal antibody		
	Stage	JP	Rheumatoid Arthritis	Approved in July 2011 (Janssen Pharma)
			Ulcerative Colitis	Ph3*
	Profile	• Monoclonal antibody targeting TNF α as inflammatory cytokine • Subcutaneous injection every 4 weeks（The longest dosing interval among SC biologics in Japan） • Among TNF inhibitors with SC injection in JP, Simponi is the only one which is approved for the treatment of preventing the progression of structural joint damage. • Simponi shows long-term effectiveness (52 weeks) including reducing active signs and symptoms, preventing the progression of structural joint damage, and improving physical function in RA patients		
	Co-development and Co-marketing with Janssen Pharma			

*Ph3 trial is under development done by Janssen Pharma

Phase 3 Study Results (Japan)

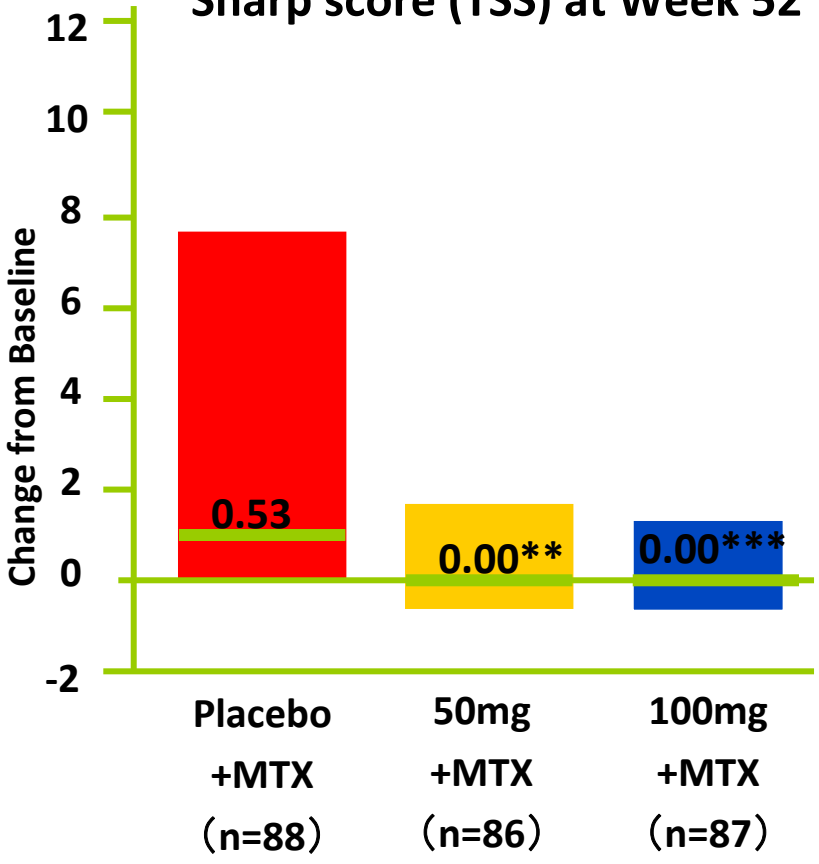
ACR20% responders at Week 14



* $p < 0.0001$

Reference: ACR Annual Scientific Meeting in 2010

Change from baseline in total Sharp score (TSS) at Week 52



** $p=0.0101$, *** $p < 0.0001$

Reference: Annual general assembly and Scientific Meeting of the JCR in 2011

Remicade /Simponi Comparison with Other Biologics

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	TNF inhibitor					Anti-IL-6 receptor antibody	CTLA4-Ig
Product name	Remicade	Enbrel	Humira	Simponi	Cimzia	Actemra	Orencia
RA approval	2003	2005	2008	2011	Under development	2008	2010
Company	MTPC	Takeda /Pfizer	Abbott /Eisai	Janssen /MTPC	UCB /Otsuka	Chugai	BMS
Indications	RA*, CD BD, Ps AS, UC	RA JIA	RA, Ps CD, AS , JIA (UC)	RA*(UC)	(RA)	Castleman, RA*, JIA	RA
Administration method	IV	SC	SC	SC	SC	IV	IV
Administration interval	Every 8 weeks	Once or twice a week	Every 2 weeks	Every 4 weeks	Every 4 weeks	Every 4 weeks	Every 4 weeks

RA Rheumatoid Arthritis
CD Crohn's disease
BD Behcet's disease
Ps Psoriasis
AS Ankylosing Spondylitis
UC Ulcerative Colitis
JIA Juvenile Idiopathic Arthritis
* : RA including preventing the progression of structural joint damage

( )Under development
IV : Intravenous infusion
SC : Subcutaneous Injection

Biologics: Market Growth in Japan

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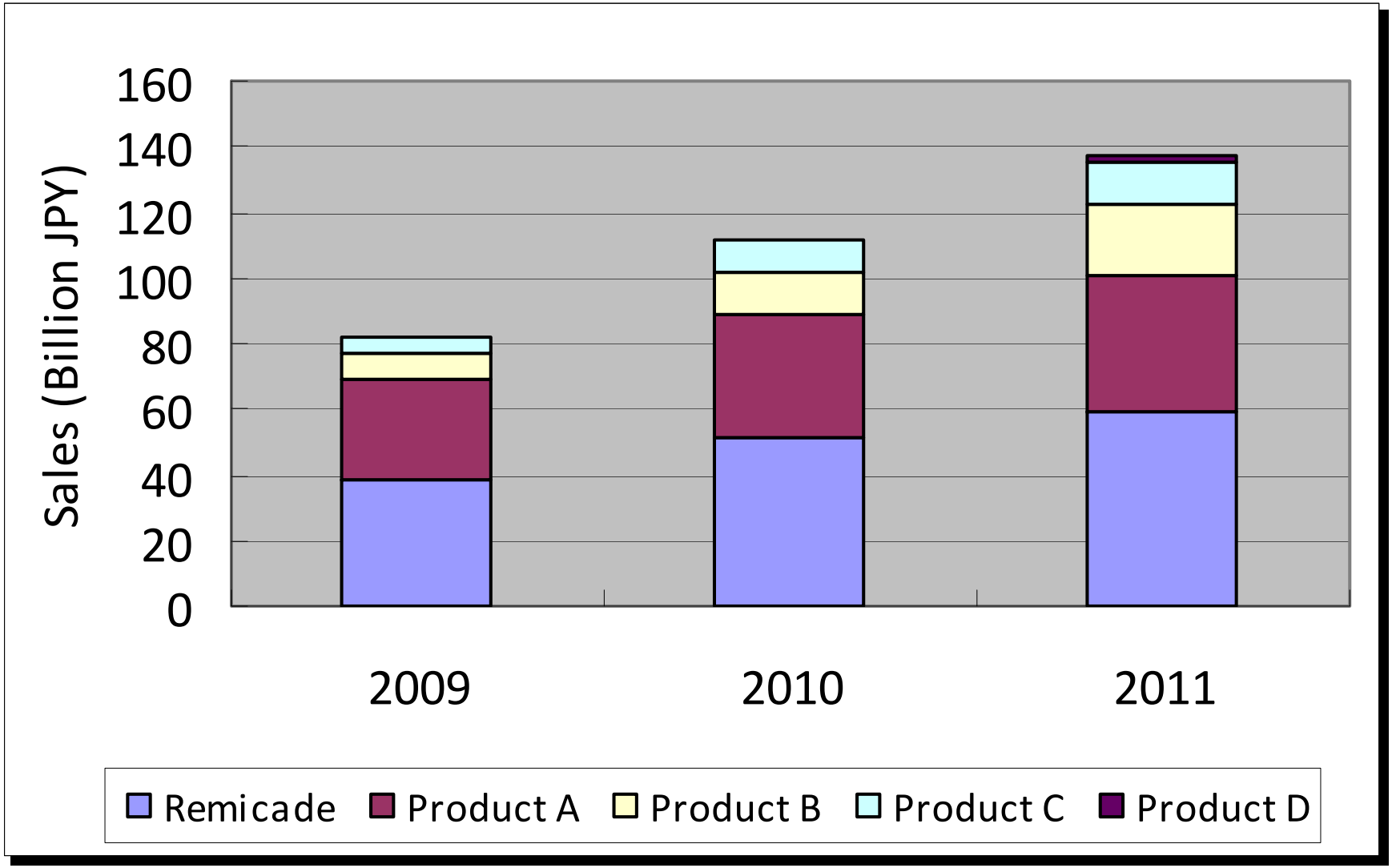

*Source: Fuji-Keizai Group, Ethical Drug Data Book 2011 Vol. 6 used with permission

Remicade/Simponi Market Potential (Japan)

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Indications	Remicade	Simponi	Number of Patients (Estimate)	Other Major Biologics
RA	◎	○	700,000 （MTX 200,000）	Launch: Enbrel Humira Actemura Orencia Under development: Cimzia
Ulcerative colitis	○	△	100,000	Under development: Humira
Psoriasis	○	—	90,000	Launch Humira Stelara
Crohn's disease	◎	—	30,000	Launch Humira
Behcet's disease（Eye）	○	—	10,000	—
Ankylosing Spondylitis	○	—	2,000	Launch Humira

◎: Launch (dose increase is approved)　○: Launch　△: Under development　—: Not approved

Value Maximization of Remicade & Simponi

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■ Keeping the top sales status with Remicade and Simponi

MTPC's Knowledge（Remicade expert MRs）

Remicade / iv

RA

1.Rapid onset

2. Preventing the progression of structural joint damage

3.Individualized treatment

（4～8weeks，3～10mg/kg）

4.Biologic-free/Drug-free（RRR study）

Multiple indications

CD，UC，Ps，BD，AS

Simponi / sc

RA

1.SC injection every 4 weeks

2. Preventing the progression of structural joint damage

3.Long-term effectiveness

TNF inhibitor

（SC injection）

Enbrel

Humira

Abundance of evidences in Japan and overseas

Telavic (MP-424)

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Project	Contents			
Telavic (Telaprevir)	**Licensed-in from Vertex Pharmaceuticals (US)**			
	Mechanism	**Inhibition of HCV NS3/4A serine protease**		
	Stage	**Chronic Hepatitis C**	**Domestic (MTPC)**	**Under application (Jan 2011)**
			Overseas (Vertex) (Tibotec)	**US: Approved (May 2011) EU: Under application (Dec 2010)**
	MTPC's territory	**15 Asian countries including Japan and China**		
	Features	• **Significantly high efficacy compared to the existing therapies** • **Oral administration possible**		

Current Treatment for Chronic Hepatitis C in Japan

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Estimated number of patients

- Asymptomatic HCV carriers : 1.5 - 2 million
- Patients who visited doctors : 400,000 - 500,000 patients/year
- Patients on IFN : 30,000 - 50,000 patients/year

Treatment Options

- Current standard treatment（antiviral therapy）

  Peginterferon + Ribavirin (48 weeks)
  Price for one course of treatment: approx. JPY 2.1 million

- New treatment with telaprevir

  Telaprevir + Peginterferon + Ribavirin (24 weeks)
  *Treatment period of MP-424: 12 weeks

Advancement in Chronic Hepatitis C Treatment

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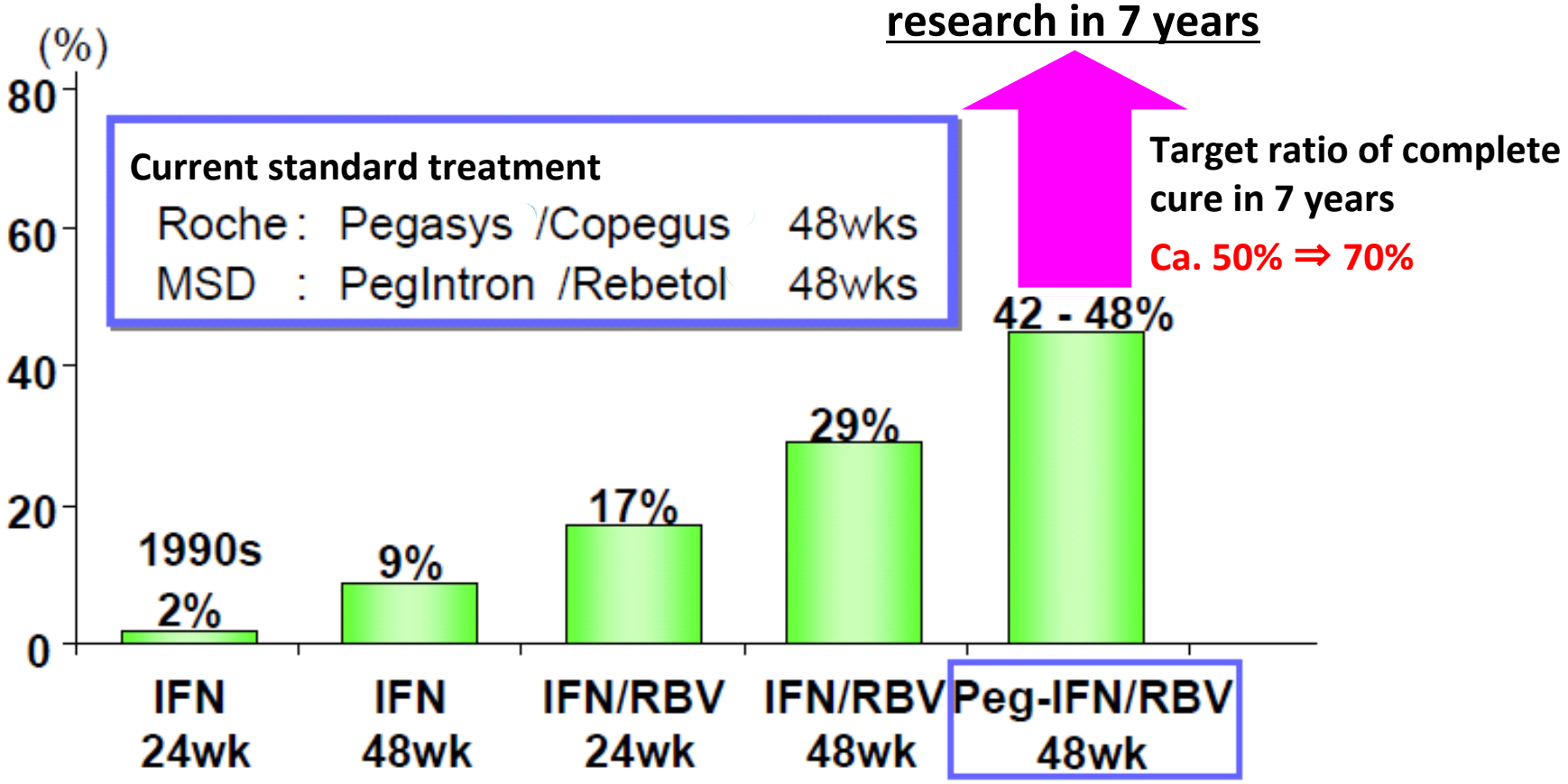
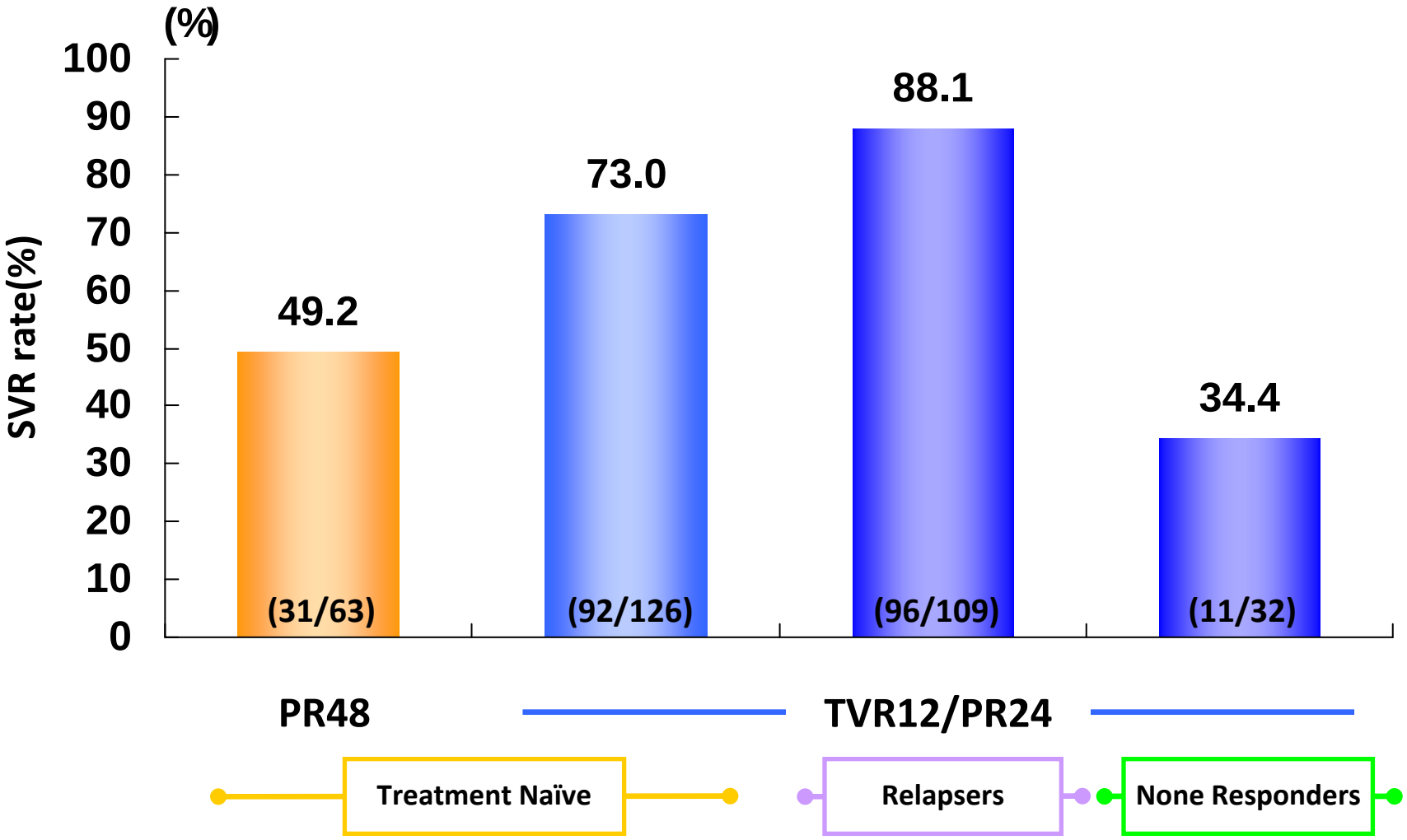
SVR* rate



Summary of Committee of Hepatitis Treatment Strategy in June 2008

SVR: sustained viral response

Phase 3 Study Results (Japan)



TVR: Telaprevir

P: Peg-IFN, R: Ribavirin

Guidelines for Treatment of Chronic Hepatitis C

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Guidelines for the primary treatment of patients with chronic hepatitis C (Mar 2011)

	Genotype 1	Genotype 2
High viral load ≥5.0 Log IU/mL ≥300 fmol/L ≥1 Meq/mL	Peg-IFN α 2b: Peg-Intron + Ribavirin: Rebetol (48-72weeks) Peg-IFN α 2a: Pegasys + Ribavirin: Copegus (48-72weeks) IFN β: Feron + Ribavirin: Rebetol (48-72weeks)	Peg-IFN α 2b: Peg-Intron + Ribavirin: Rebetol (24weeks) IFN β: Feron + Ribavirin: Rebetol (24weeks)
Low viral load <5.0 Log IU/mL <300 fmol/L <1 Meq/mL	IFN (24weeks) Peg-IFN α 2a: Pegasys (24-48weeks)	IFN (8-24weeks) Peg-IFN α 2a: Pegasys (24-48weeks)

Guidelines for the primary treatment of patients with chronic hepatitis C (Mar 2011)
Genotype 1

The guideline after the protease inhibitors become usable

High viral load
≥ 5.0 Log IU/mL
≥ 300 fmol/L
≥ 1 Meq/mL

Peg-IFN α 2b: Peg-Intron
+ Ribavirin: Rebetol
+ Telaprevir (24weeks)

***Guidelines for the treatment of patients with viral hepatitis have been compiled annually by the Study Group for the Standardization of Treatment of Viral Hepatitis Including Cirrhosis, under the auspice of the Ministry of Health Labor and Welfare of Japan, recruiting many specialists from all over the nation.**

Major Products under Development for Treatment of HCV (Japan)

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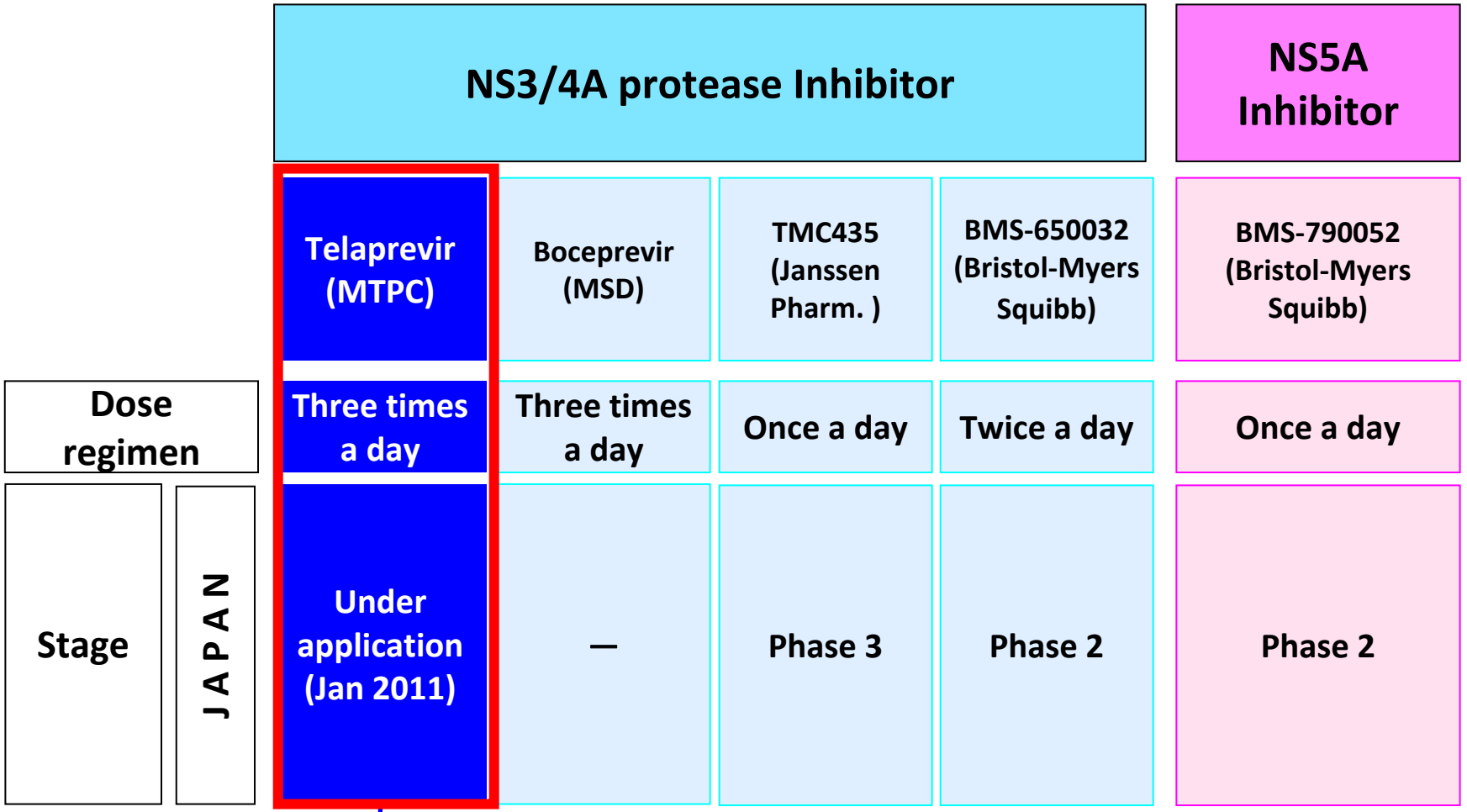
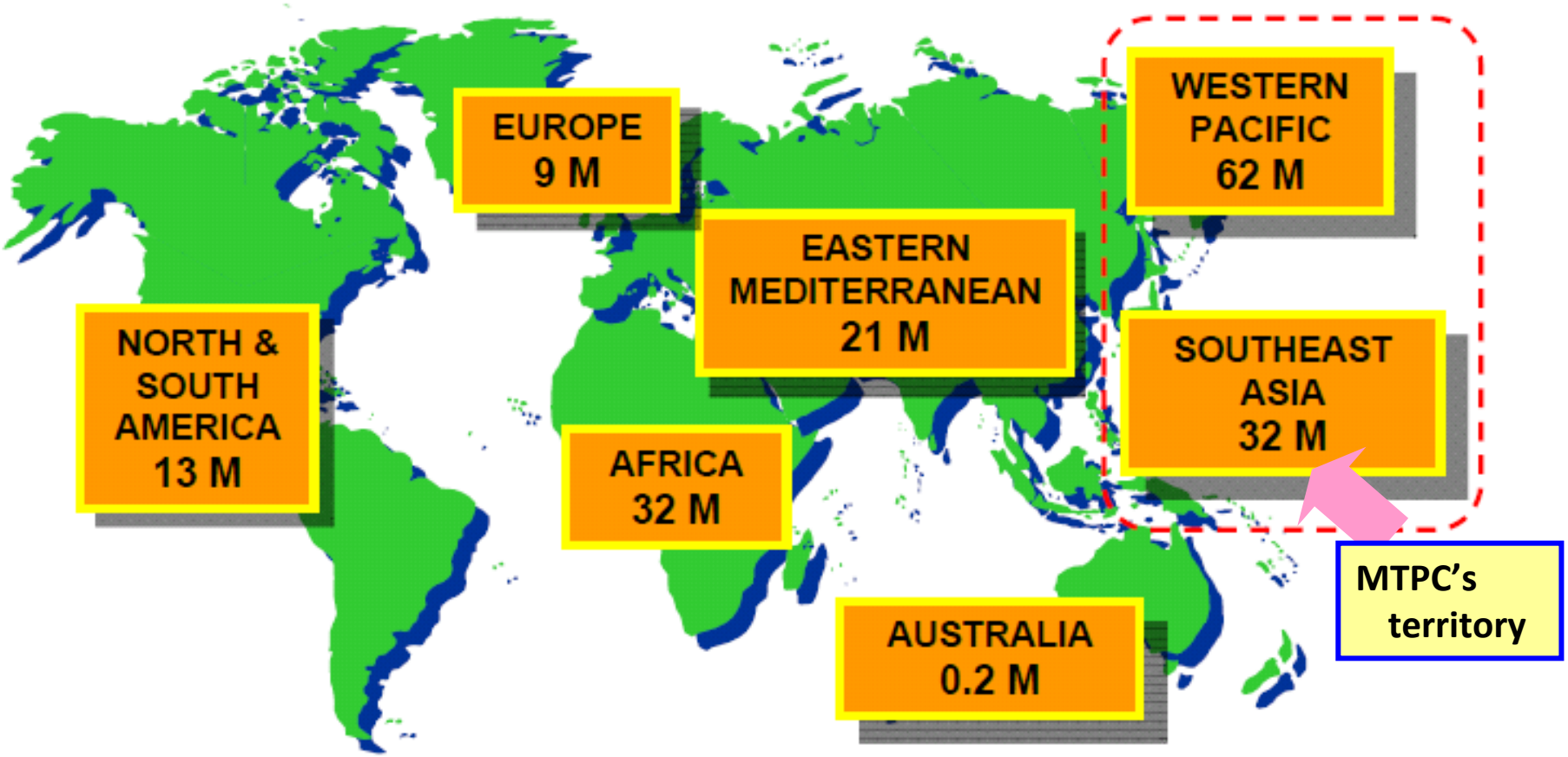


HCV-Infected Patients in The World

- 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

Future Deployment - Expansion of Drug Development Regions

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Current Treatment for Chronic Hepatitis C in China

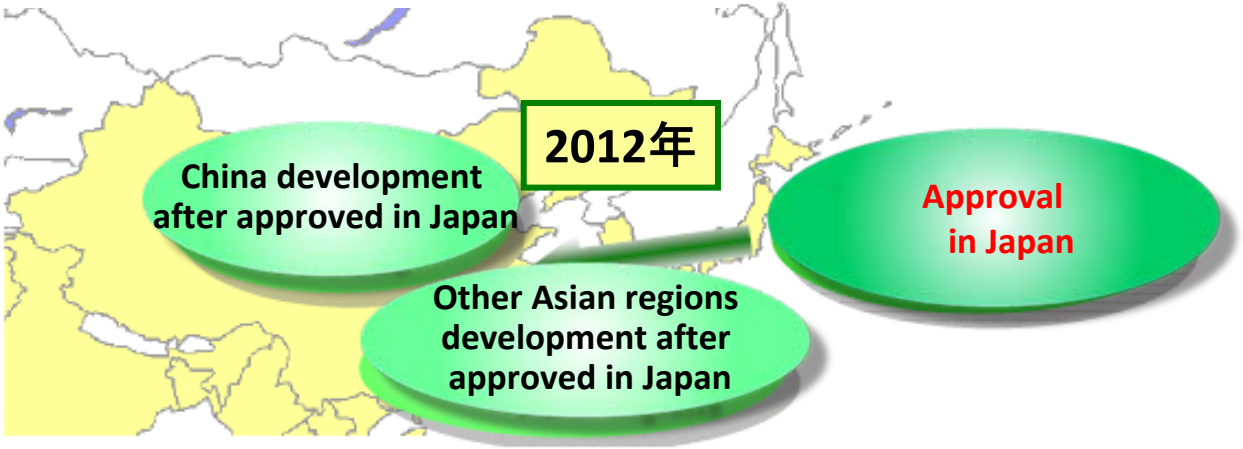
■ Estimated number of patients in China

- HCV carriers ≒ 43 million
- Genotype 1 ratio is high in HCV infected patients
- IFN-treated ≒ 30,000-40,000 patients
(rapidly increasing, about 10,000 patients are treated by branded IFN)

■ Standard therapy in China

-Combination of Peg-IFN and RBV (48 week)

~same treatment to US/EU and Japan



Imusera（FTY720）

Project	Contents			
Imusera（FTY720/ fingolimod）	Mechanism	Modulation of sphingosine 1-phosphate (S1P) receptor		
	Stage	Multiple sclerosis (MS)	Domestic	Filed in Dec 2010
			Overseas (Licensed to Novartis)	US：Approved in Sep 2010
				EU：Approved in Mar 2011
	Profile	・More effective than interferon ・World’s first oral MS drug		

Imusera（FTY720）

■Stage

Domestic : Filed in December 2010.
Expected to be approved soon.

Overseas : Licensed-out to Novartis
Novartis gained the approval in US in Sep 2010 and EU in Mar 2011.

Mechanism : Facilitation of lymphocyte homing

■Competitive product

Cladribine : Approved in Russia and Australia (not in US and EU) but withdrew from MS market (June 2011)

Reduction of MS Activity by FTY720 Observed in Patient Pretreated with DMT

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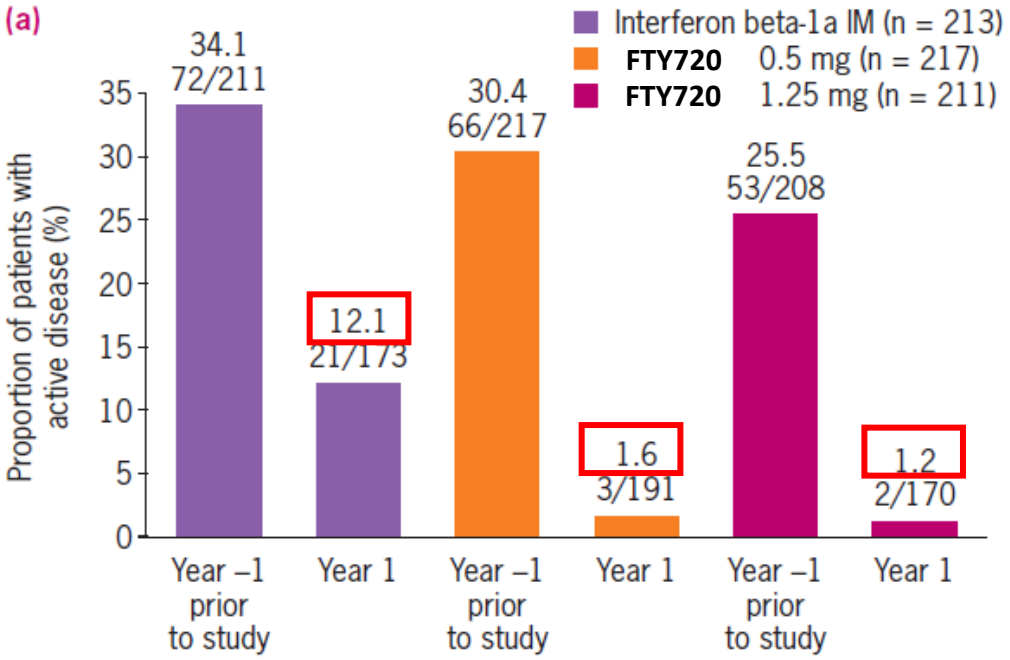
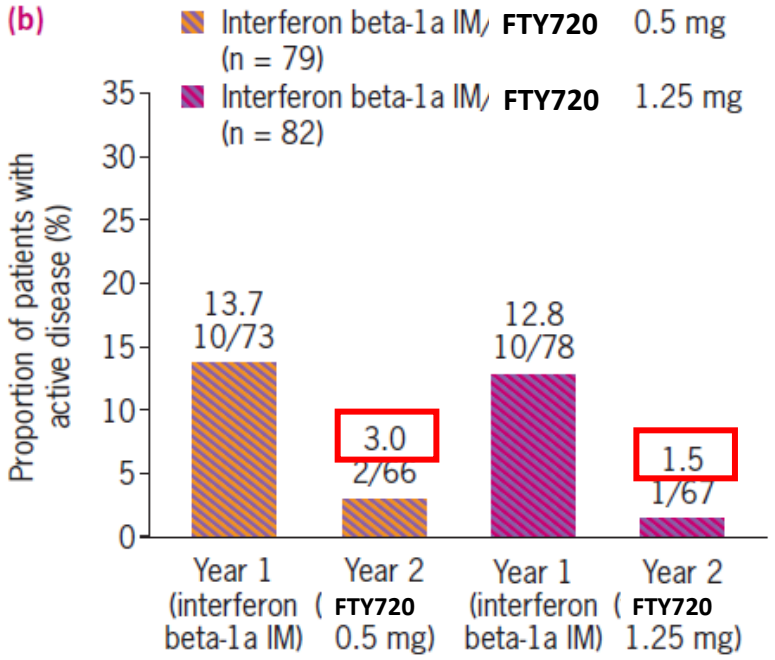
*The proportion of patients with active MS disease(%)

(≧1 Relapse within one year & with ≧1 Gd positive lesion) D2302 trial

Patients pretreated with DMT before participation



Patients treated with FTY720 switched from IFN in the elongation trial



FTY720 significantly reduced the proportion of patients with active MS disease in the MS patients pretreated with DMT, compared to IFN (Avonex) within a year (a). It is also revealed that the additional reduction was observed in the patients treated with FTY720 which was switched from IFN (Avonex) in the elongation trial (b).

*DMT : Disease modifying therapy (IFN-β、Copaxone, Tysabri)

*Cohen, JA. et al. AAN (2011)

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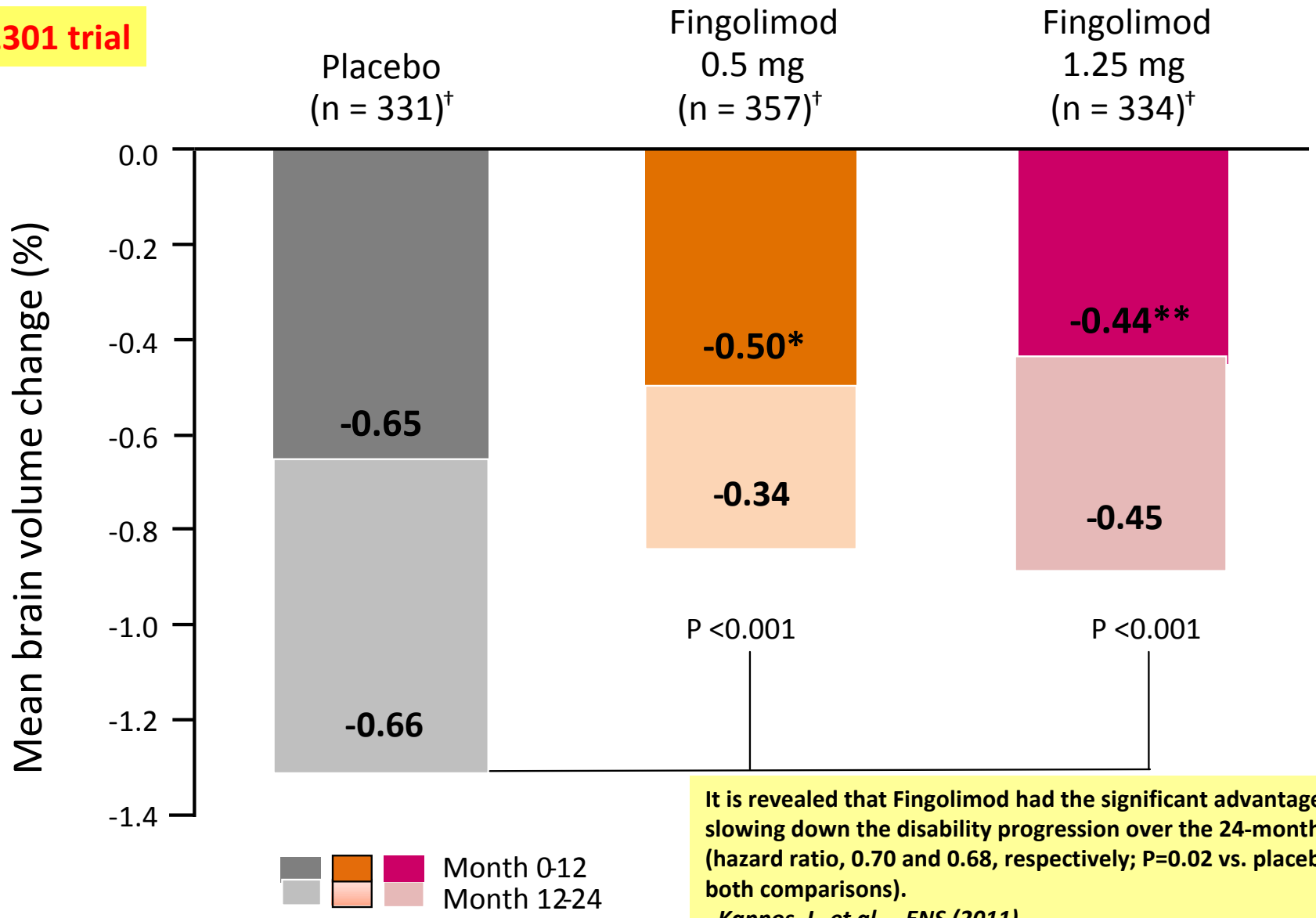
Significant Reduction of Brain Shrinkage

D2301 trial



It is revealed that Fingolimod had the significant advantage of slowing down the disability progression over the 24-month period (hazard ratio, 0.70 and 0.68, respectively; P=0.02 vs. placebo, for both comparisons).

. Kappos, L. et al. ENS (2011)

FTY720 modulates S1P receptors on both lymphocytes and neural cells

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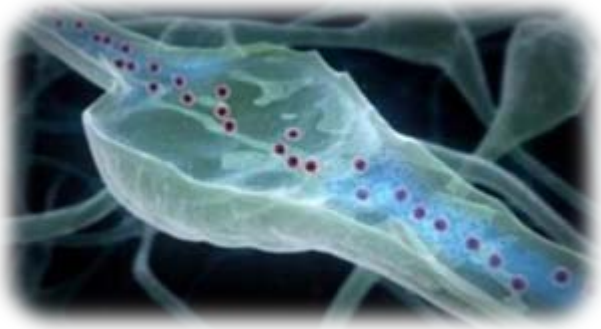
- Main effect in the immune system:

  reversible and selective retention of circulating lymphocytes in the lymph nodes

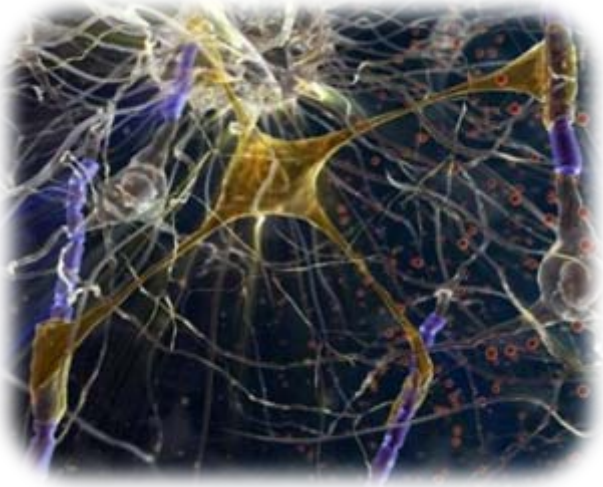
  recovery to normal range within 6 weeks of stopping therapy as lymphocytes are not destroyed



- Potential for direct CNS effect:

  FTY720 can enter the CNS

  glial cells and neurons express S1P receptors known to modulate neuro pathological processes relevant to MS



Kappos, L. et al. ENS (2011)

Psycho-neurologic diseases

✓ *Lexapro (Depression)*

Lexapro

Project	Contents			
Lexapro (Escitalopram)	Mechanism	Selective Serotonin Reuptake Inhibitors (SSRI)		
	Stage	Depression	Japan (Mochida Pharmaceutical)	Approved in April 2011 (Mochida Pharmaceutical) ※Co-marketing with Mochida Pharmaceutical*
	Profile	• Highest selective SSRI • No.1-reputed depressant with well-balanced high efficacy and acceptability • Low drug interaction, easy to prescribe • W/W Sales 3,845M $**		

*Co-promotion with Yoshitomiyakuhin at psychiatric institution

**Source: Uto Brain 2009/07 used with permission

Lexapro Comparative DBT Results with Placebo and Paroxetine

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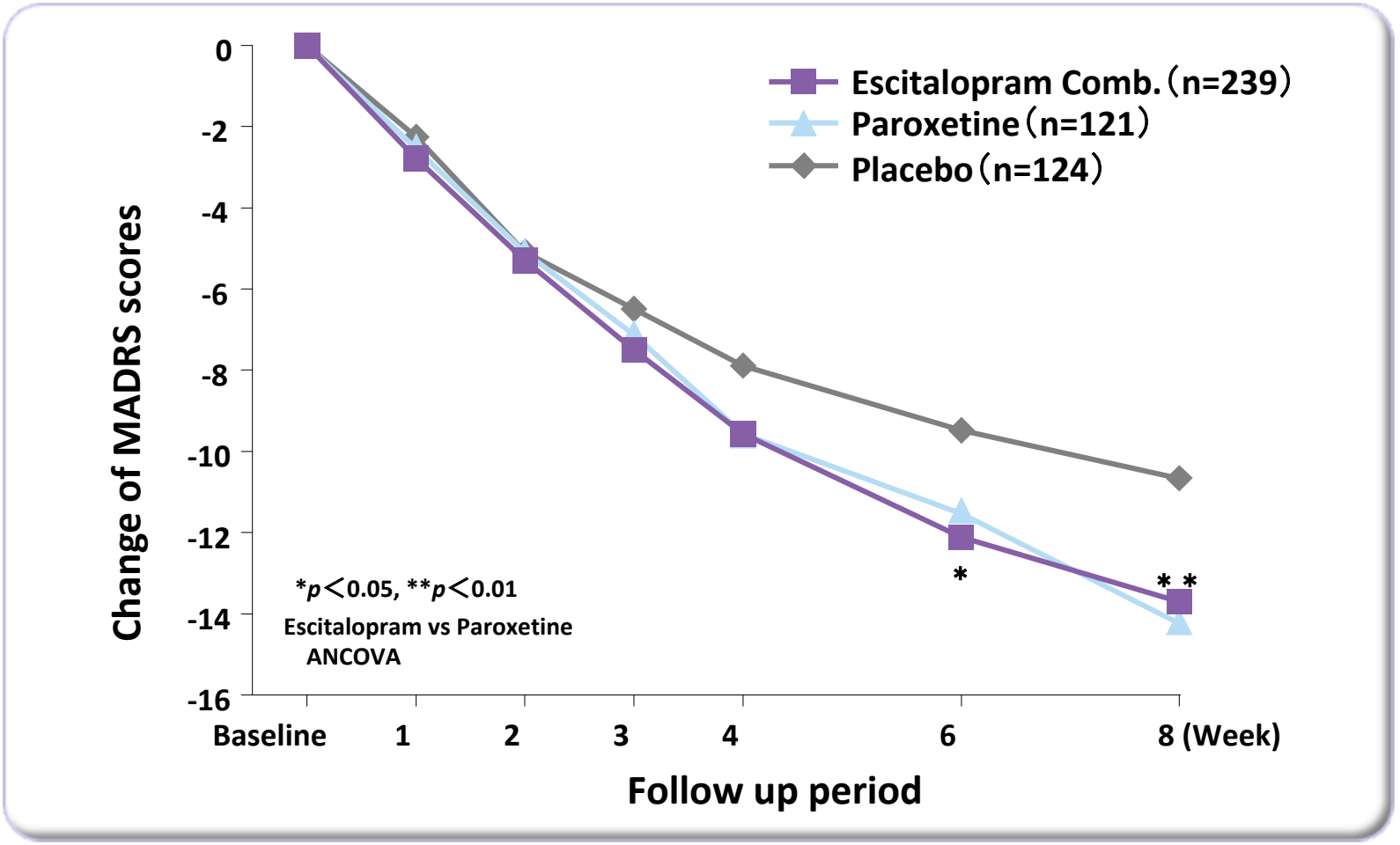
■Change of MADRS scores（LOCF）



*LOCF(Last observation carried forward)

Source: Mochida Pharmaceutical

Lexapro Comparative DBT Results with Placebo and Paroxetine

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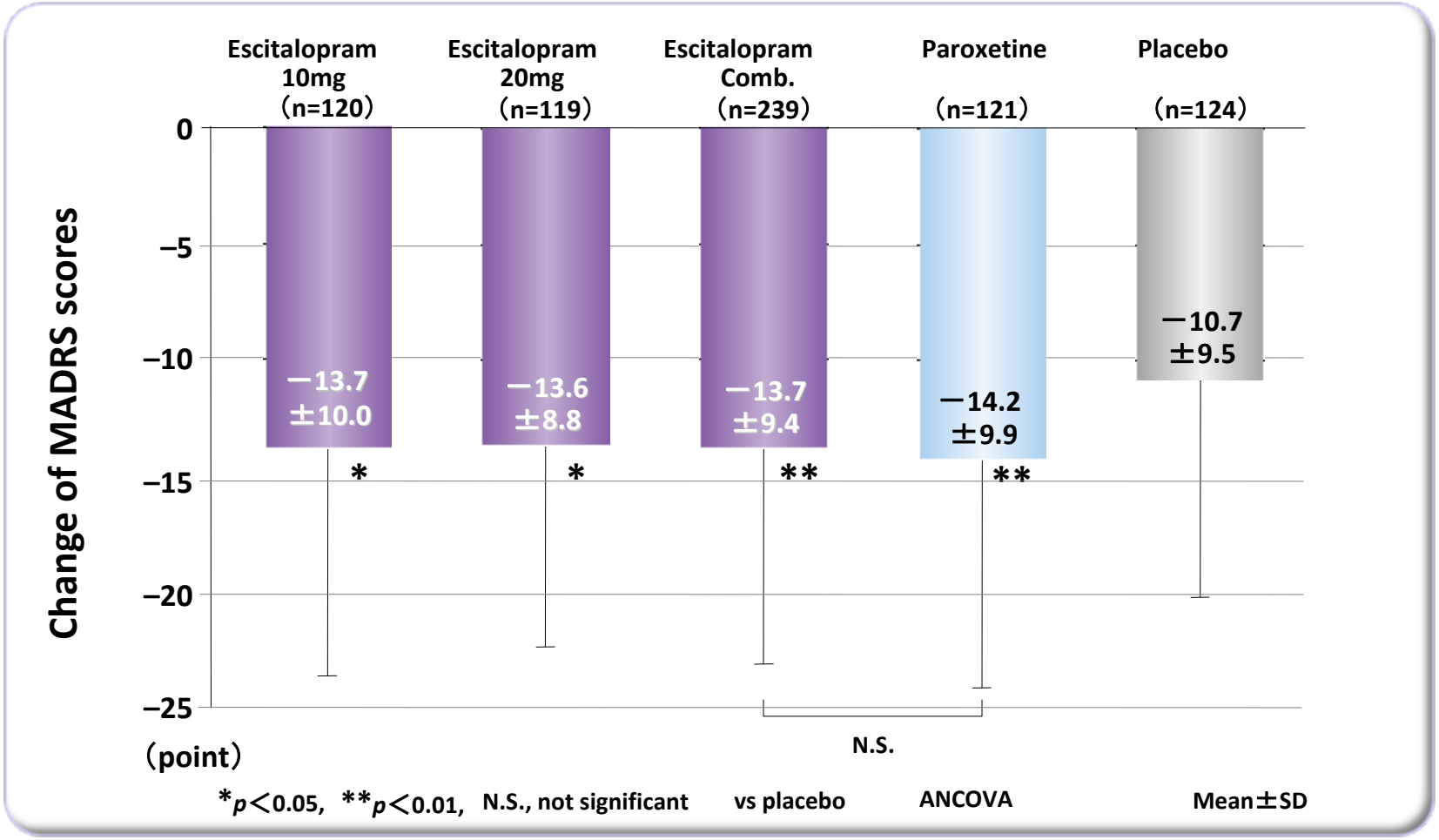
■Change of MADRS scores (8 week、LOCF)



*LOCF（Last observation carried forward）

Source:Mochida Pharmaceutical

Antidepressants: Market Growth in Japan

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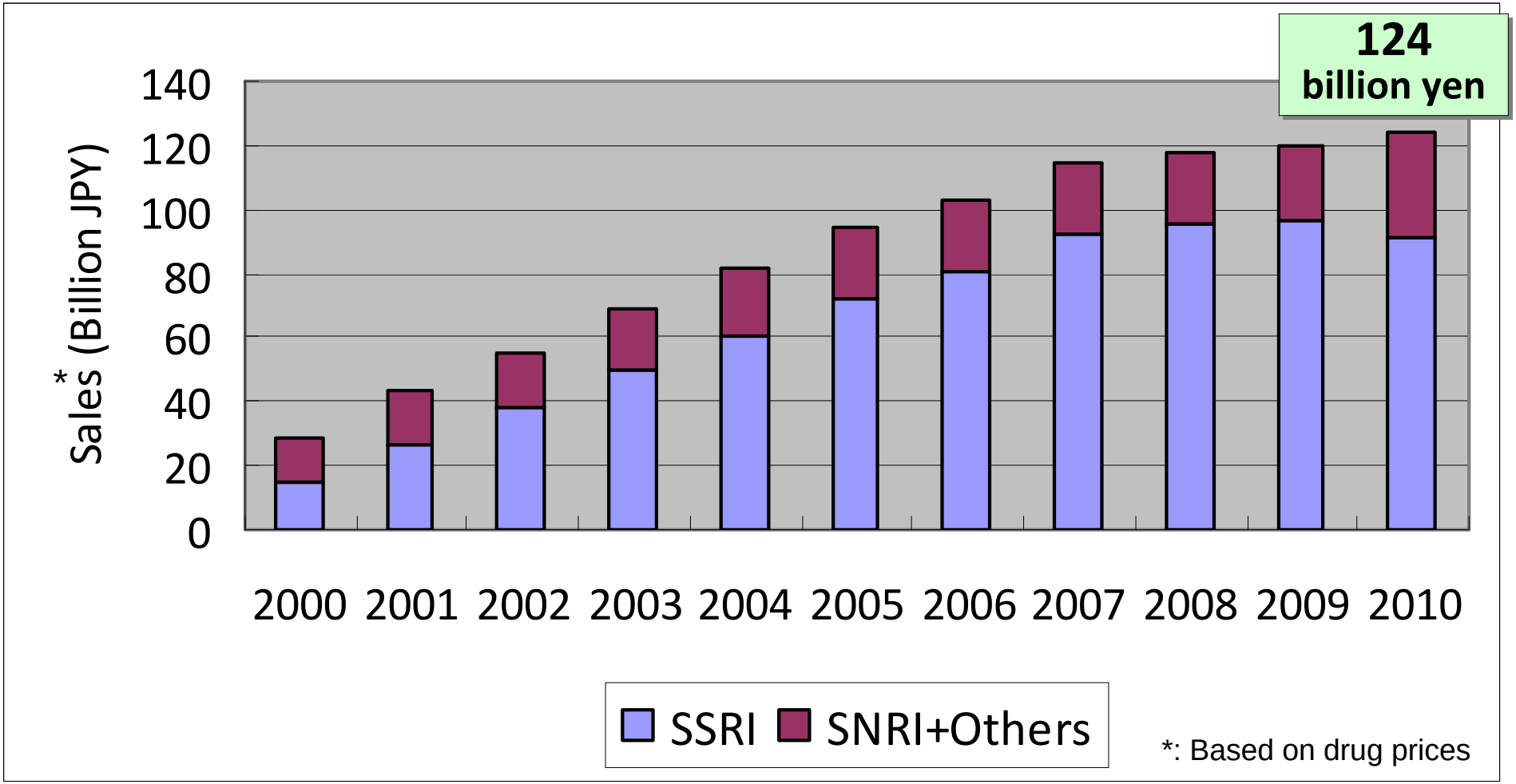

Others (Filed and Approved)(1)

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New Molecular Entities

Development code (Generic name)	Category	Indications	Phase: Ph1	Ph2	Ph3	NDA Filed	Approved
TA-8317/Acref (Fentanyl citrate)	Narcotic analgestic	Breakthrough cancer pain:oral transmucosal					Approved in 2010/10
BK-4SP	Vaccine	Prophylaxis of pertussis, diphteria, tetanus and poliomyelitis		Co-development (BIKEN*)			

*The Research Foundation for Microbial of Osaka University

Others (Filed and Approved)(2)

Additional Indications

Development code (Generic name)	Category	Indications	Phase
Venoglobulin IH (Polyethylene glycol-treated human normal immunoglobulin)	Human immunoglobulin G	Polymyositis, Dermatomyositis	Approved in 2010/10
		Human Immunoglobulin G2 subclass deficiency	Filed in 1997/12
		Myasthenia gravis	Filed in 2010/12 (Orphan drug designated)
		Systemic sclerosis	
Modiodal (Modafinil)	Psychoneurotic agent	Obstructive sleep apnea	Filed in 2010/5

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.