

Mitsubishi Tanabe Pharma Corporation
FY2012 Business Results

Development Pipeline

- **Progress of the Development Pipeline**
- **Canagliflozin**

May 9, 2013

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Board Director , Managing Executive Officer

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Mitsubishi Tanabe Pharma

Pipeline Development Status







(In-house Development of New Molecular Entities)

→: progress since Feb. 1, 2013

		Mechanisms (Indications)	Region	P1	P2	P3	NDA	Approval
New Molecular Entities in-house	TA-7284	SGLT2 inhibitor (Type 2 diabetes mellitus)	Japan	→			Application to be filed soon.	
	MT-1303	S1P receptor functional antagonist (Multiple sclerosis)	Europe	→				
	MT-3995	Selective mineralocorticoid receptor antagonist (Diabetic nephropathy)	Europe	→				
	MP-424	NS3-4A protease inhibitor (Chronic hepatitis C)	Korea	→				

Pipeline Development Status (LCM)

→: progress since Feb. 1, 2013

		Mechanisms (Indications)	Region	P1	P2	P3	NDA	Approval
L C M	Omeprazon	Proton pump inhibitor (Helicobacter pylori eradication by concomitant therapy for Helicobacter pylori gastritis)	Japan					
	Grtpa	Thrombolytic agent (Acute ischemic cerebrovascular disease [up to 4.5 hours after the onset of symptoms])	Japan					
	Tenelia	DPP-4 inhibitor (Type 2 diabetes mellitus, additional combination)	Japan					
	Imusera	S1P receptor functional antagonist (Chronic inflammatory demyelinating polyradiculoneuropathy)	Japan (Multinational study)					
	Talion	Selective histamine H1 receptor antagonist (Pediatric atopic dermatitis)	Japan					
	Telavic	NS3-4A protease inhibitor (Chronic hepatitis C, Pegasys/Feron combination)	Japan					

Pipeline Development Status (Out-licensed Product)

→: progress since Feb. 1, 2013

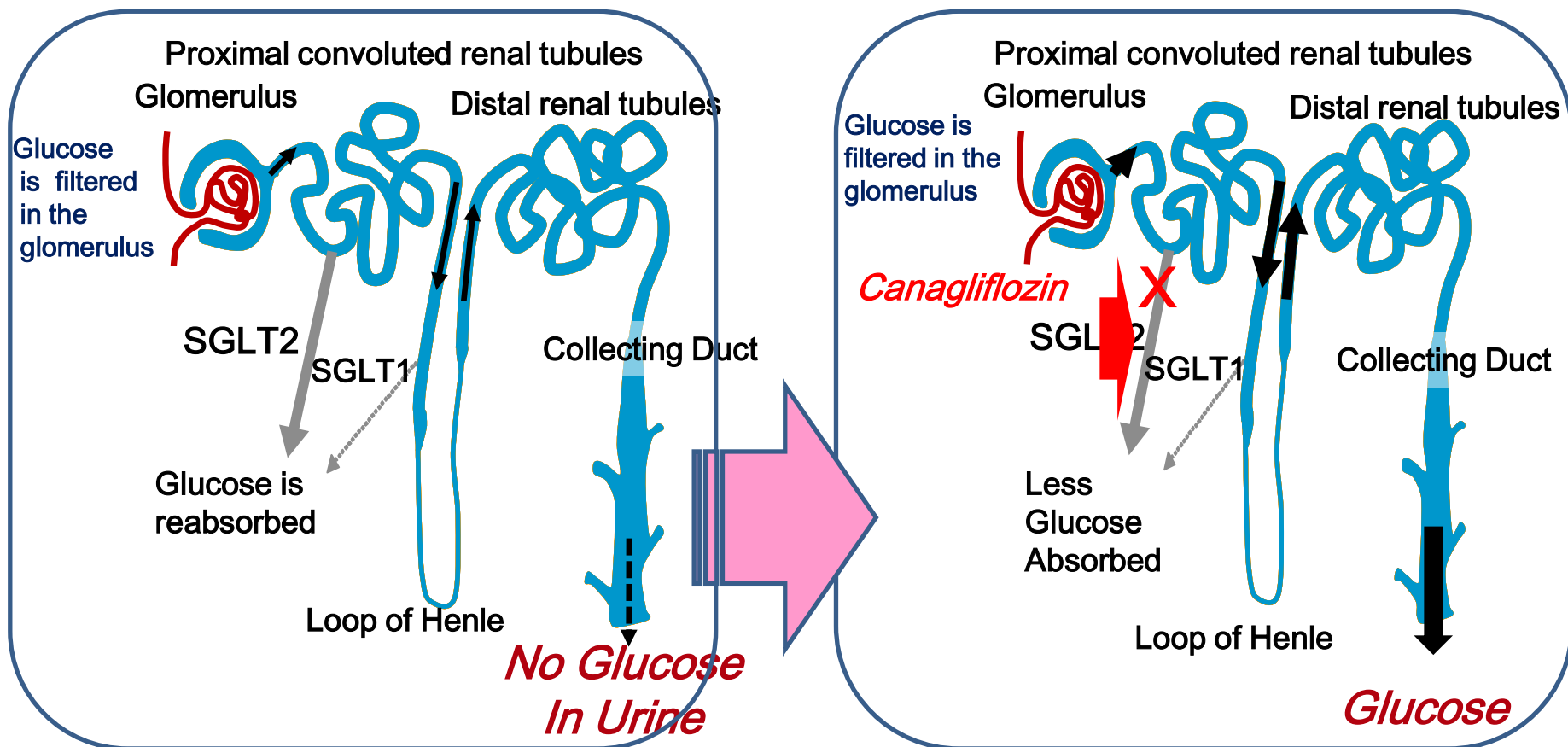
		Mechanisms (Indications)	Region	P1	P2	P3	NDA	Approval	
Out-licensed product	TA-7284/ INVOKANA™	SGLT2 inhibitor (Type 2 diabetes mellitus)	U.S. (Janssen Pharmaceuticals)	→					
	TA-7284, FDC*1	SGLT2 inhibitor (Type 2 diabetes mellitus, metformin combination)	U.S. and Europe (Janssen Pharmaceuticals)				→		
	TA-1790	PDE5 inhibitor (ED)	Europe (Vivus)	→					Recommendation of approval
	FTY720	S1P receptor functional antagonist (Chronic inflammatory demyelinating polyradiculoneuropathy)	Multinational study*2			→			

*1: Fixed dose combination

*2: Co-developed with Novartis Pharma in Japan

- Approval of Canagliflozin in the US
- Future Developments Plan of Diabetes Treatment in Japan

SGLT Inhibitors and Glucose Absorption/Reabsorption



- Promotes excretion of glucose into the urine
- Loss of glucose = loss of calories
 - ⇒ Reduction in body weight
 - ⇒ Greater improvement of blood glucose control

Phase III Studies Conducted in Japan and Abroad

Initial
Diagnosis



Mono
Therapy



Dual
Combination



Triple
Combination

Insulin
+/- Oral

Diet &
Exercise

Cana vs. PBO
24 wks

Cana Open
52 wks

Oral AHA + Cana
52 wks

Conducted by Mitsubishi Tanabe Pharma Corporation
N=1,472

Diet &
Exercise

Cana vs. PBO
26+26 wks

Met + Cana vs.
Met + PBO 26+26 wks

Met + Cana vs.
Met + Glim 52+52 wks

SU + Cana vs.
SU + PBO 18 wks

Met + Cana vs.
Met + DPP4 26+26 wks

Met + TZD + Cana vs.
Met + TZD + PBO
26+26 wks

Met + SU + Cana vs.
Met + SU + PBO
26+26 wks

Met + SU + Cana vs.
Met + SU + DPP4
52 wks

Insulin + Cana vs.
Insulin + PBO
18 wks

Body Composition
Cana vs. PBO
26+78 wks

Renal Impairment
Cana vs. PBO
26+26 wks

Cardiovascular Outcomes in High Risk Population (CANVAS)

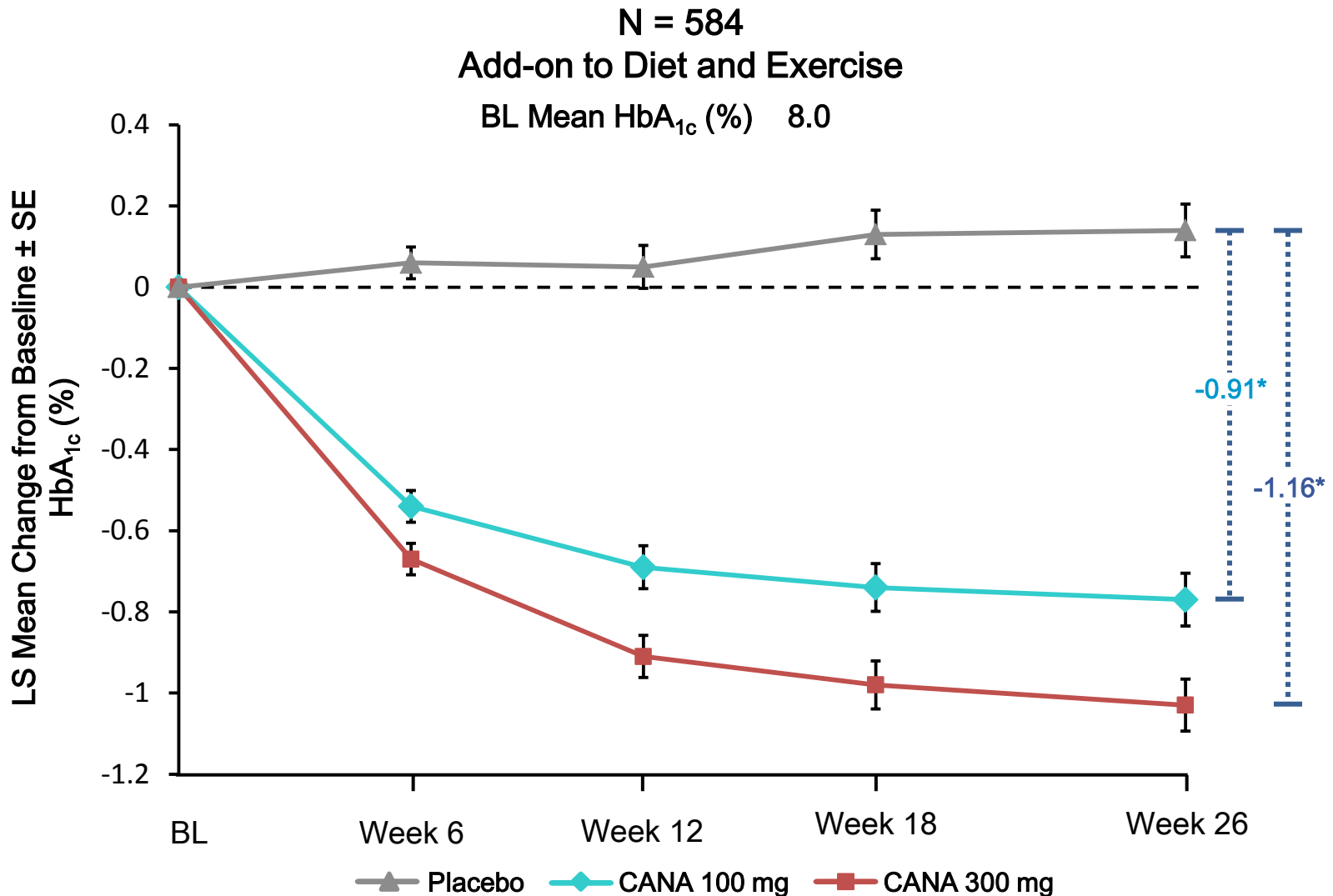
Event-driven N=4330

Conducted by Janssen Research & Development

N=10,210

HbA1c Change from Baseline Over Time

Monotherapy Study



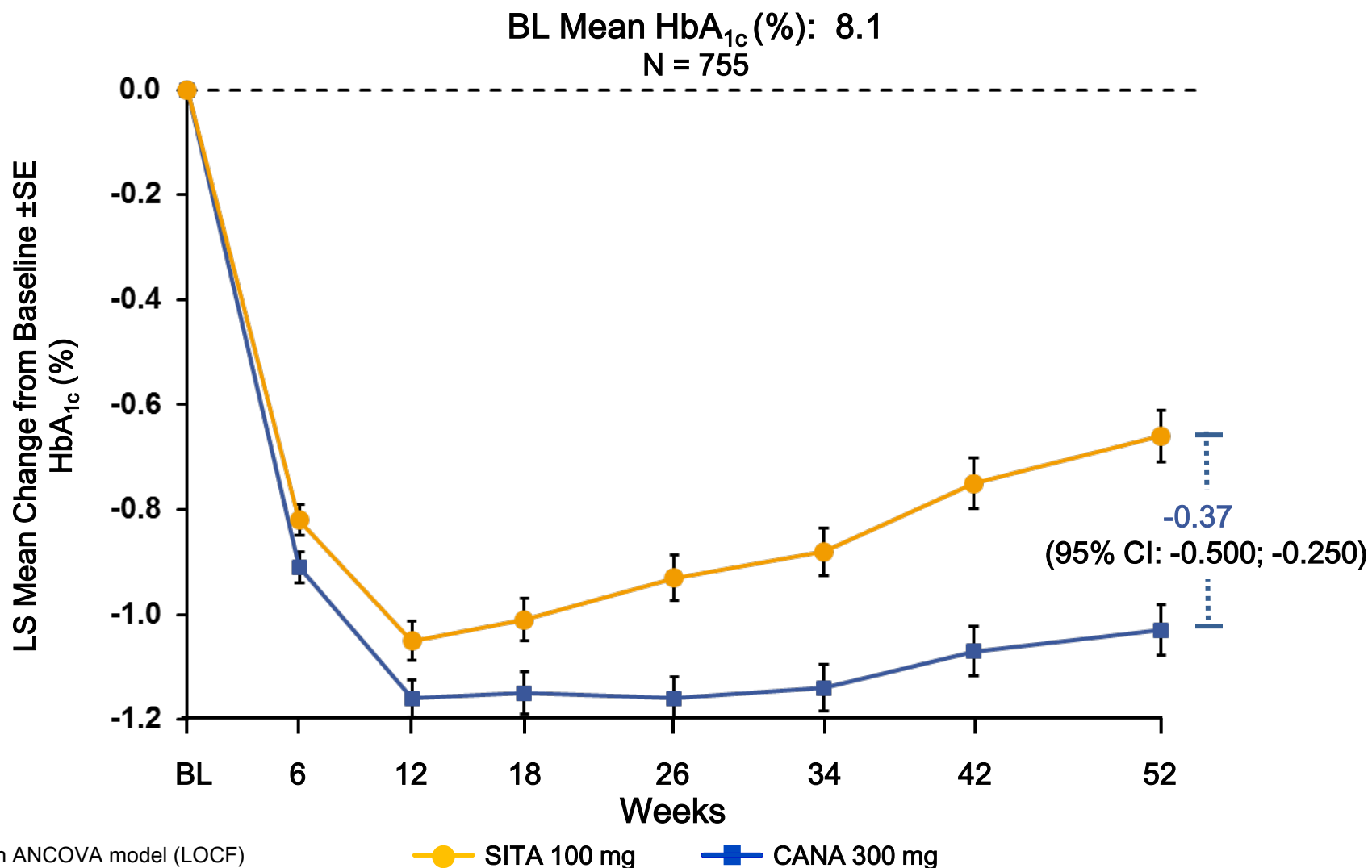
* p < 0.001

Based on ANCOVA model, data prior to rescue (LOCF); N = mITT N

Stenlöf K et al Diabetes Obesity and Metabolism 2013; 15: 372-382

HbA1c Change from Baseline Over Time

Active (Sitagliptin)- controlled Add-on to Met + SU Study



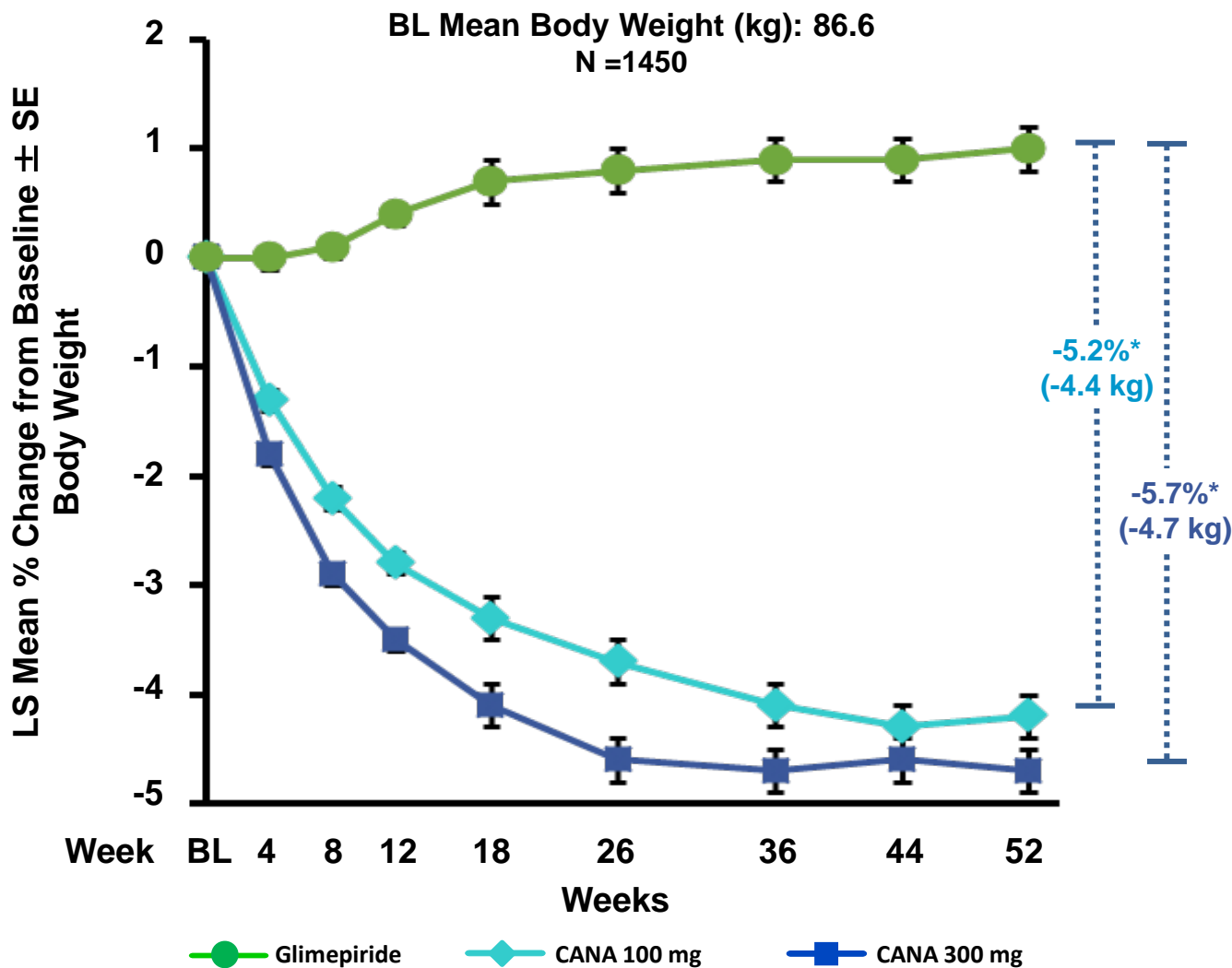
Based on ANCOVA model (LOCF)

Scherthamer G et al Diabetes Care published online April 5, 2013 DOI: 10.2337/dc12-2491

<http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/EndocrinologicandMetabolicDrugsAdvisoryCommittee/UCM336236.pdf>, CC-50

Body Weight Percent Change from Baseline Over Time

Active (Glimepiride)-controlled Add-on to Metformin Study



* p < 0.001

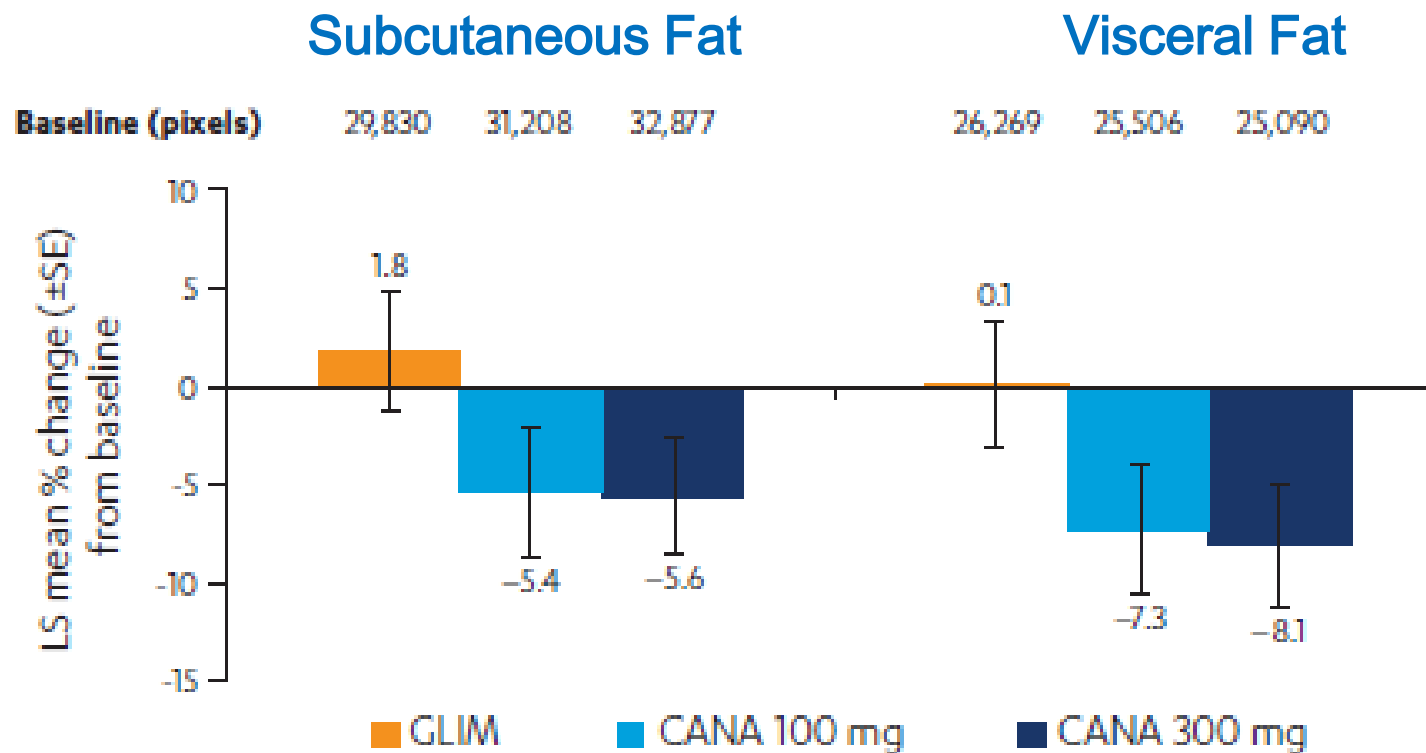
Based on ANCOVA model, data prior to rescue (LOCF)

Toubro S., et al. Diabetologia. 2012; 55 (suppl1): S313

<http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/EndocrinologicandMetabolicDrugsAdvisoryCommittee/UCM336236.pdf>, CC-47

Percent Change in fat distribution at week 52

LOCF



< Indications and Usage >

- INVOKANA™ is a SGLT2 inhibitor indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus

< Dosage and Administration >

Recommended dosage

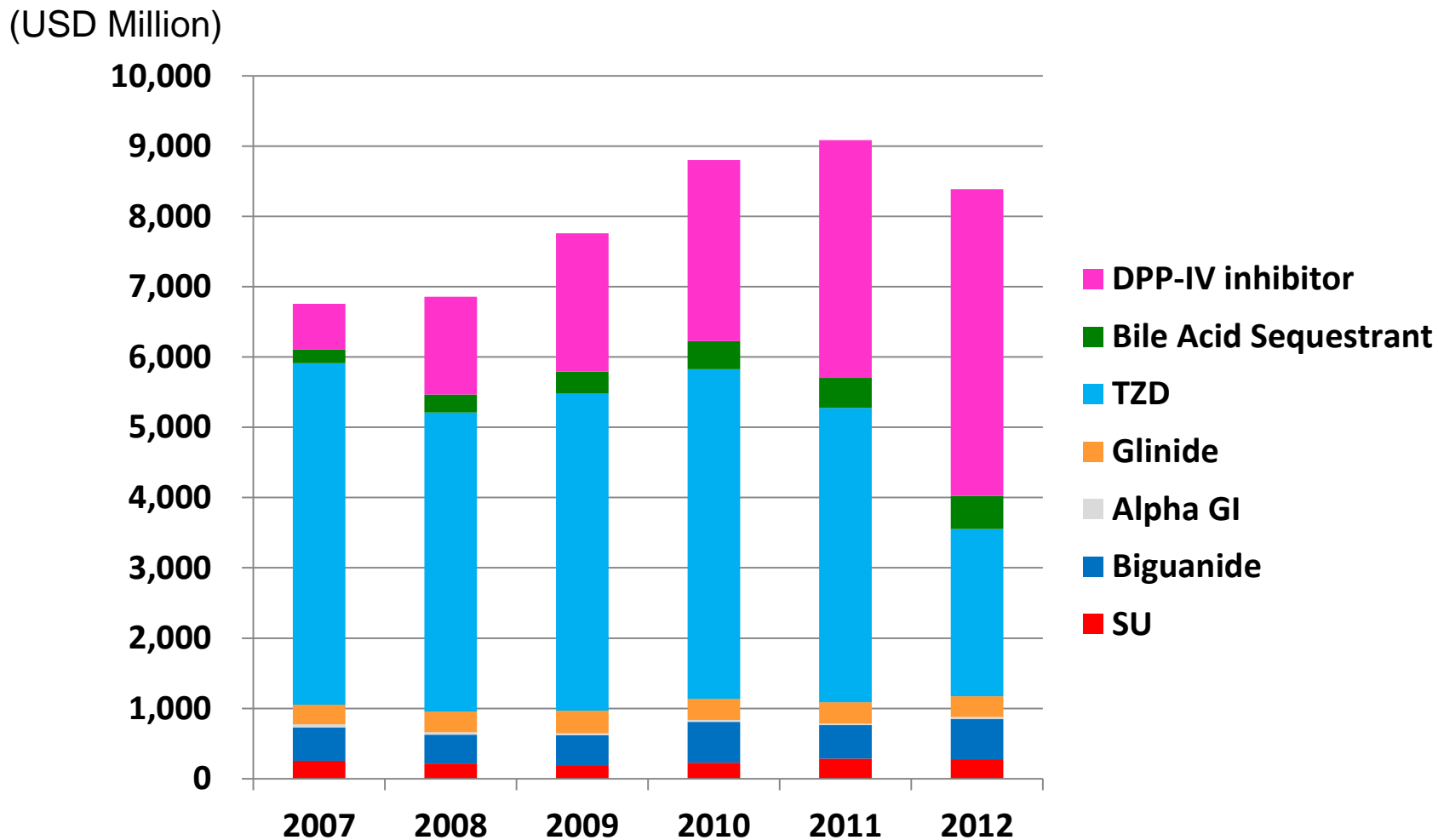
- Starting dosage: 100mg once daily
- Dose can be increased to 300mg once daily in patients tolerating INVOKANA™ 100mg once daily who have an eGFR of 60ml/min./1.73m² or greater and require additional glycemic control.

Patients with Renal Impairment

- Mild renal impairment (eGFR of 60mL/min./1.73 m² or greater): no dose adjustment
- eGFR of 45 to less than 60 mL/min/1.73 m² : limited to 100 mg once daily
- eGFR less than 45 mL/min/1.73 m²: should not be initiated
- eGFR persistently less than 45 mL/min/1.73 m²: should be discontinued

1. Clinical pharmacology study in pediatric patients (ages 10 to < 18)
2. Double-blind study in pediatric patients (ages 10 to < 18)
 - 26-week + 26-week study, placebo-controlled, add-on to metformin and monotherapy
3. Assessment and analysis of spontaneous reports
 - Malignancy (pheochromocytoma, Leydig cell tumor and renal cell carcinoma) ; to continue for 10 years
 - Serious pancreatitis, severe hypersensitivity reactions, photosensitivity reactions, serious hepatic abnormalities and pregnancy; to continue for 5 years
4. DIA3010 study
 - Completion and submission of the final report for the 78-week double-blind extension phase
5. CV risk assessment
 - Assess the incidence of MACE

T2DM Market (Oral Agents) Snapshot in the US



SGLT Inhibitor Development Environment

Compound	Company (Development)	Overseas	Japan
Canagliflozin TA-7284	MTPC, Janssen Pharmaceuticals	EU Application Jun. 2012 US approval Mar. 2013	P3
Dapagliflozin BMS-512148	Bristol-Myers, AstraZeneca	US CRL Jan. 2012 EU approval Nov. 2012	P3
Empagliflozin BI10773	Boehringer Ingelheim, Eli Lilly	EU/US Application Q1 2013	P2/3
Ipragliflozin ASP1941	Astellas, Kotobuki	EU/US P2b completed in May 2012 EU/US Development terminated in Nov. 2012	NDA submission (Mar. 2013)
Luseogliflozin TS-071	Taisho	-	NDA submission (Apr. 2013)
Tofogliflozin CSG421	Chugai	P2 completed (Roche development terminated)	P3
Ertugliflozin PF04971729	Pfizer, Merck	P2 completed (Jan. 2011)	P1 completed Feb. 2011
LX4211	Lexicon	P2 completed (Jun. 2012)	-

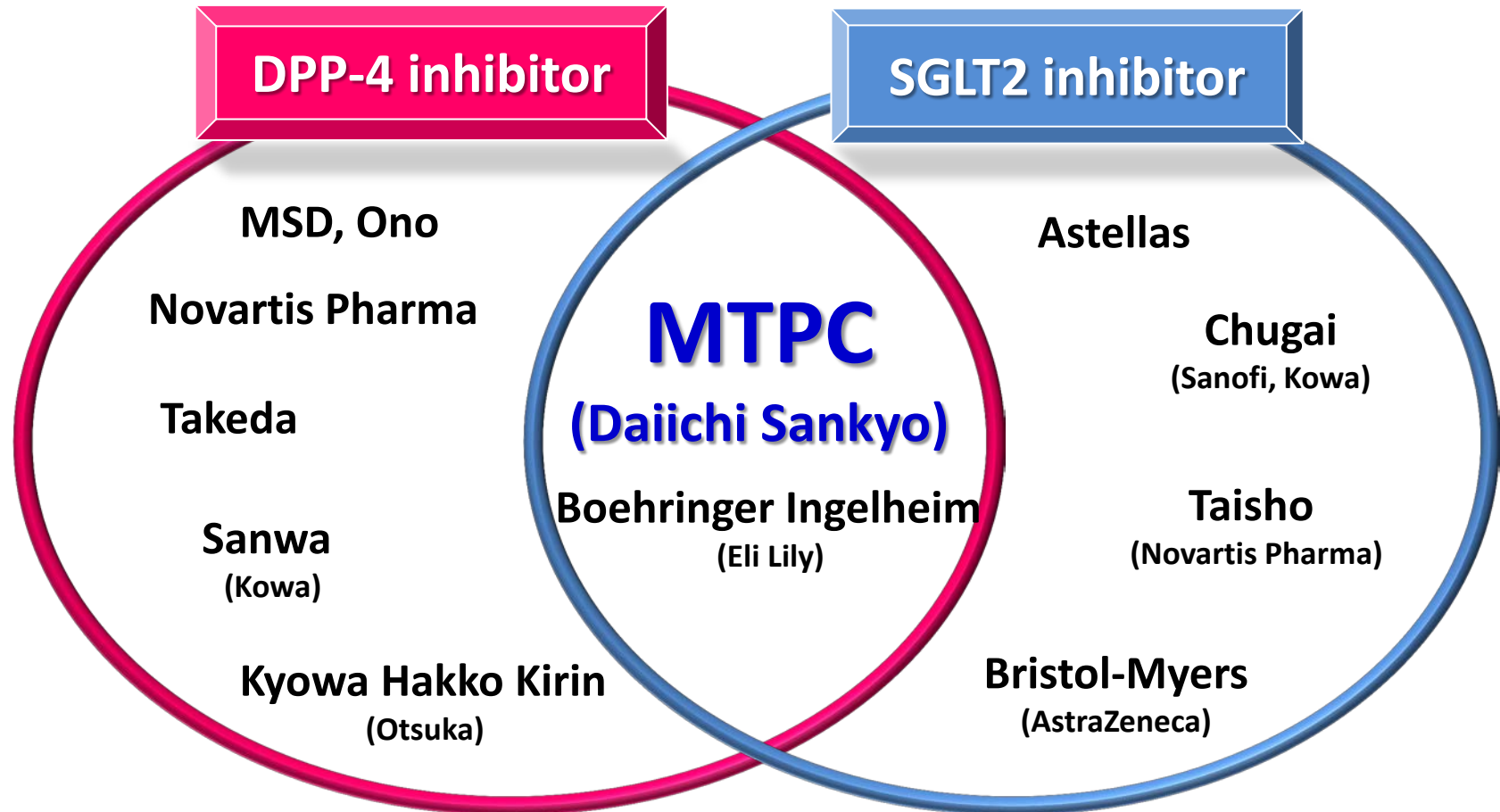
The Field of Diabetes Treatment: Future Development in Japan

In 2012	In 2013	In 2014	In 2015
<p>Tenelia (DPP-4 Inhibitor)</p> <ul style="list-style-type: none"> ● Jun., Approval ● Sep., Launch ● Long-term prescriptions ● Feb., Combination Application ● Additional approval of combination therapy 			
<p>TA-7284: canagliflozin (SGLT2 Inhibitor)</p> <ul style="list-style-type: none"> ● Application ● Approval ● Launch ● Long-term prescriptions 			

Advantage in Diabetic Area

■ Major marketing authorization holders

() : Co-marketing or co-promotion



**MTPC and Boehringer Ingelheim
are the originators having both drugs**

New Value Creation

Becoming a “Company that Can Continue to Create New Value”

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.