

## Development activities

### ■ New Compounds

Development code <generic name>	Drug Class (administration route)	Indications	Stage		In-house/ In-license
SYR-322 <alogliptin>	DPP-4 inhibitor (oral)	Diabetes mellitus	US	Filed (Dec 07)	In-house
			Jpn	Filed (Sep 08)	
		EU	P-III		
		US	Filed (Sep 08)		
		EU	P-III		
Jpn	P-I				
TAK-390MR <dexlansoprazole>	Proton pump inhibitor (oral)	Erosive esophagitis (healing and maintenance) and non-erosive gastro-esophageal reflux disease	US	Approved (Jan 09)	In-house
			Jpn	P-II	
TMX-67 <febuxostat>	Non-purine, selective xanthine oxidase inhibitor (oral)	Hyperuricemia in patients with gout	US	Filed (Dec 04)	In-license (Teijin)
TAK-375 <ramelteon>	MT <sub>1</sub> /MT <sub>2</sub> receptor agonist (oral)	Insomnia	Jpn	Filed (Feb 08)	In-house
		Circadian rhythm sleep disorder (CRSD)	EU	P-III *Re-submission of MAA is under consideration	
Vectibix® <panitumumab>	Fully human monoclonal antibody (MAb) against the human EGFR (injection)	Progressive and relapse cancer of the colon and rectum	US	P-II	In-house
		Head and neck cancer	Jpn	P-III	
SNT-MC17 <idebenone>	Mitochondria targeted anti-oxidant (oral)	Friedreich's ataxia	EU	P-III *Re-submission of MAA is under consideration	In-license (Santhera)
		Duchenne muscular dystrophy	EU	P-II	
TAK-242 <resatorvid>	TLR4 signal transduction inhibitor (injection)	Severe sepsis	US	P-III	In-house
			EU	P-III	
			Jpn	P-III	
AMG706 <motesanib diphosphate>	VEGFR1-3 inhibitor (oral)	Progressive non-small cell lung cancer	US	P-III	In-license (Amgen)
			EU	P-III	
			Jpn	P-III	
TAK-491 <azilsartan medoxomil>	Angiotensin II receptor blocker (oral)	Hypertension	US	P-III	In-house
			EU	P-III	
MLN0002 <vedolizumab>	α4β7 integrin inhibitor (injection)	Ulcerative colitis, Crohn's disease	US	P-III	In-house
			EU	P-III	
Lu AA21004 <- - >	Serotonin modulator & stimulator (oral)	Mood and anxiety disorders	US	P-III	In-license (Lundbeck)
			EU	P-III	
			Jpn	P-I	
Hematide™ <- - >	Synthetic, peptide-based erythropoiesis-stimulating agent (injection)	Chronic kidney disease related anemia	US	P-III	In-license (Affymax)
		Chemotherapy-induced anemia	EU	P-III	
			Jpn	P-I/II	
		-	P-I	*Development suspended	
ATL-962 <cetilistat>	Lipase inhibitor (oral)	Obesity	Jpn	P-III	In-license (Alizyme)
TAK-428 <- - >	Neurotrophic factor production accelerator (oral)	Diabetic neuropathy	US	P-II	In-house
			EU	P-II	
TAK-536 <azilsartan>	Angiotensin II receptor blocker (oral)	Hypertension	US	P-II	In-house
			EU	P-II	
			Jpn	P-II	



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<b>TAK-783</b> < - >	T-cell function regulator (oral)	Rheumatoid arthritis	US EU Jpn	P-II P-II P-I	In-house
<b>TAK-442</b> < - >	Selective factor Xa (FXa) inhibitor (oral)	Venous / arterial thromboembolism	US EU Jpn	P-II P-II P-I	In-house
<b>TAK-379</b> < - >	Insulin sensitizer (oral)	Diabetes mellitus	US EU Jpn	P-II P-II P-I	In-house
<b>TAK-085</b> < - >	EPA/DHA agent (oral)	Hypertriglyceridemia	Jpn	P-II	In-license (Pronova)
<b>SYR-472</b> < - >	DPP-4 inhibitor (oral)	Diabetes mellitus	US EU Jpn	P-II P-II P-I	In-house
<b>MLN0518</b> <tandutinib>	Inhibitor of receptor kinases (FLT3, PDGFR, c-KIT) (oral)	Glioblastoma	US	P-II	In-house
<b>Lu AA24530</b> < - >	Monoamine modulator (oral)	Mood and anxiety disorders	EU Jpn	P-II P-I	In-license (Lundbeck)
<b>CBP501</b> < - >	Cell cycle dysregulator (injection)	Malignant pleural mesothelioma Lung cancer	US -	P-II P-I	In-license (CanBas)
<b>TAK-875</b> < - >	Glucose-dependent insulin secretagogue (oral)	Diabetes mellitus	Jpn US EU	P-II P-I P-I	In-house
<b>AMG655</b> < - >	Fully human monoclonal antibody agonist directed against DR5 (TRAIL-R2) (injection)	Progressive cancer	Jpn	P-I	In-license (Amgen)
<b>TAK-100</b> < - >	DPP-4 inhibitor (oral)	Diabetes mellitus	-	P-I	In-house
<b>TAK-591</b> < - >	Angiotensin II receptor blocker (oral)	Hypertension	-	P-I	In-house
<b>TAK-700</b> < - >	Sex hormone synthesis inhibitor (oral)	Prostate cancer	-	P-I	In-house
<b>TAK-683</b> < - >	GnRH modulator (injection)	Prostate cancer	-	P-I	In-house
<b>TAK-448</b> < - >	GnRH modulator (injection)	Prostate cancer	-	P-I	In-house
<b>TAK-285</b> < - >	HER2 inhibitor (oral)	Solid tumors	-	P-I	In-house
<b>TAK-593</b>	VEGFR, PDGFR inhibitor (oral)	Solid tumors	-	P-I	In-house
<b>TAK-385</b> < - >	LH-RH receptor antagonist (oral)	Endometriosis, Uterus myoma	-	P-I	In-house
<b>TAK-363</b> < - >	Bladder hypersensitivity suppression (Suppression of micturition reflex) (oral)	Frequent urination, Urinary incontinence (Overactive bladder)	-	P-I	In-license (Toray)
<b>MLN8237/8054</b> < - >	Aurora A kinase inhibitor (oral)	Advanced malignancies	-	P-I	In-house



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<b>MLN4924</b> < - >	Nedd 8 activating enzyme inhibitor (oral / injection)	Advanced malignancies	- P-I	In-house
<b>TAK-065</b> < - >	Neuroregeneration enhancer (oral)	Alzheimer disease, Parkinson's disease	- P-I	In-house
<b>TAK-438</b> < - >	Potassium-competitive acid blocker (oral)	Acid-related diseases (GERD, Peptic ulcer, etc.)	- P-I	In-house
<b>MLN0415</b> < - >	IKK2 inhibitor (oral)	Inflammatory diseases	- P-I	In-house

## ■ Additional indications/new formulations

Development code <generic name> Brand name (country / region)	Drug Class	Indications or formulations	Stage	In-house / In-license
<b>VELCADE®</b> <bortezomib>	Proteasome inhibitor	First line multiple myeloma Follicular NHL Other tumors	US Approved (Jun 08) US P-III US P-II	In-house
<b>AMITIZA®</b> <lubiprostone>	Chloride channel opener	Opioid-Induced bowel dysfunction (OBD)	US P-III	In-license (Sucampo)
<b>TAP-144-SR</b> <leuprorelin acetate> Leuplin (Jpn) Enantone, etc. (EU, Asia)	LH-RH agonist	6-month depot/prostate cancer	EU (Austria) Approved (May 08) EU (Germany) Approved (Jul 08)	In-house
<b>AG-1749</b> <lansoprazole> Takepron (Jpn, Asia) Prevacid (US, Asia) Ogast, Agopton, Lansox, etc. (EU)	Proton pump inhibitor	Risk reduction of NSAID-associated gastric ulcer Risk reduction of low dosage aspirin-associated gastric ulcer	Jpn P-III Jpn P-III	In-house
<b>TCV-116</b> <candesartan cilexetil> Blopess (Jpn, EU, Asia) Amias, Kenzen, etc.(EU)	Angiotensin II receptor blocker	Fixed-dose combination with diuretic Fixed-dose combination with diuretic (high dose) Fixed-dose combination with calcium channel blocker High dose	Jpn Approved (Jan 09) EU Filed (Jun 08) Jpn P-III Jpn P-III	In-house
<b>AD-4833</b> <pioglitazone> Actos (Jpn, US, EU, & Asia)	Insulin sensitizer	Concomitant therapy with biguanides Fixed-dose combination with extended-release metformin Delay in progression of Atherosclerosis Concomitant therapy with insulin Orally disintegrating tablets Fixed-dose combination with metformin Fixed-dose combination with glimepiride	Jpn Approved (Dec 08) US Filed (Mar 06) EU Filed (Oct 08) US Filed (Aug 08) Jpn Filed (Jun 07) Jpn Filed (Sep 08) Jpn Filed (Oct 08) Jpn P-III	In-house
<b>AO-128</b> <voglibose> Basen (Jpn, Asia)	Alpha-glucosidase inhibitor	Prevention of onset of type 2 diabetes in patients with impaired glucose tolerance (IGT)	Jpn Filed (Dec 07)	In-house
<b>KAD-1229</b> <mitigliinide> Glufast (Jpn)	Short-acting insulin secretagogue	Concomitant therapy with insulin sensitizer	Jpn Filed (Apr 07)	In-license (Kissei)
<b>NE-58095</b> <risedronate> Benet (Jpn)	Bone resorption inhibitor	Paget's disease of bone	Jpn Approved (Jul 08)	In-license (Ajinomoto)



## ■ Recent progress in stage\*

Development code	Indications	Country/Region	Progress in stage
TAK-390MR	Erosive esophagitis (healing and maintenance) and non-erosive gastro-esophageal reflux disease	US	Approved (Jan 09)
TCV-116	Hypertension (Fixed-dose combination with diuretic)	Jpn	Approved (Jan 09)
AD-4833	Diabetes mellitus (Concomitant therapy with biguanides)	Jpn	Approved (Dec 08)
AD-4833	Diabetes mellitus (Fixed-dose combination with extended-release metformin)	EU	Filed (Oct 08)
MLN0002	Ulcerative colitis, Crohn's disease	US, EU	P-III
ATL-962	Obesity	Jpn	P-III
TAK-875	Diabetes mellitus	Jpn	P-II
CBP501	Malignant pleural mesothelioma	US	P-II
SYR-322	Diabetes mellitus (Fixed-dose combination with Actos)	Jpn	P-I
Lu AA24530	Mood and anxiety disorders	Jpn	P-I

\* Progress in stage since release of FY2008 2Q results (Nov 4, 2008).

## ■ Discontinued project\*

Development code	Indications (Stage)	Reason
TCV-116	Prevention of onset and progression of diabetic retinopathy (P-III)	With the result of DIRECT Programme which shows no statistically significant difference in the primary endpoints, we decided not to pursue this indication.

\* Discontinued since release of FY2008 2Q results (Nov 4, 2008).