

Research and Development Pipeline

(1) Domestic: Research and Development Pipeline

Stage	Code No. / Generic name	Therapeutic Target	Classification	Dosage Form	In-house/Alliance
Filed	YM152 (finasteride) <Filed in Dec. 1994>	Benign prostatic hyperplasia	5 alpha-reductase inhibitor	Oral	Merck
	YM670 (multiporous gelatine particles) <Filed in Aug. 2001>	Arterio-embolization (liver)	Therapeutic embolizing agent	Particle	In-house
	YM177 (celecoxib) <Filed in Dec. 2002>	Rheumatoid arthritis, osteoarthritis, low back pain, etc.	Cyclooxygenase-II inhibitor	Oral	Pfizer
	YM905 (solifenacin) <Filed in Aug. 2004>	Urinary frequency, urinary incontinence or urgency associated with overactive bladder	Muscarinic receptor antagonist	Oral	In-house
P-III	YM529 (minodronate)	Osteoporosis	Bisphosphonate	Oral	Ono Pharmaceutical
P-II	YM974 (valdecoxib)	Rheumatoid arthritis, osteoarthritis, low back pain, etc.	Cyclooxygenase-II inhibitor	Oral	Pfizer
	YM978(parecoxib)	Acute pain	Cyclooxygenase-II inhibitor	Injection	Pfizer

(2) Domestic: New Indications, New Formulations

Stage	Code No. / Generic name	Therapeutic Target	Classification	Dosage Form	In-house/Alliance
Approved	Harnal D (tamsulosin) Orally disintegrating tablet <Approved in Sep. 2004>	Functional symptoms with benign prostatic hyperplasia	Alpha-1 receptor antagonist	Oral	In-house
	Advaferon (interferon alfacon-1) <Approved in Sep. 2004>	Chronic hepatitis C virus infection (New Formulation of 9MIU)	Consensus interferon (CIFN)	Injection	Amgen
P-III	YM617 (tamsulosin)	Lower urinary tract syndrome	Alpha-1 receptor antagonist	Oral	In-house
	YM086 (telmisartan)	Diabetic nephropathy	Angiotensin II receptor antagonist	Oral	Boehringer Ingerheim
	YM643 (interferon alfacon-1)	Chronic hepatitis C virus infection (Advaferon for use in combination with ribavirin)	Consensus interferon (CIFN)	Advaferon: Injection ribavirin: Oral	Amgen Schering-Plough
	YM060 (ramosetron)	Irritable bowel syndrome (IBS)	5HT3 antagonist	Oral	In-house
	YM026 (nateglinide)	Type II diabetes (Concomitant treatment with Biganides)	Rapid onset insulin secretion enhancer	Oral	Ajinomoto
	YM177 (celecoxib)	Post surgical pain, post traumatic pain, tooth extract pain	Cyclooxygenase-II inhibitor	Oral	Pfizer

(3) Overseas: Research and Development Pipeline

Stage	Code No./ Generic name	Area	Therapeutic Target	Classification	Dosage Form	In-house/Alliance
Launched	Vesicare (solifenacin) <EU: Launched in Aug.2004>	Europe 7 Countries*	Urinary frequency, urinary incontinence or urgency associated with overactive bladder	Muscarinic receptor antagonist	Oral	In-house
Filed	YM905 (solifenacin) <US: Filed in Dec. 2002>	U.S.A.	Urinary frequency, urinary incontinence or urgency associated with overactive bladder	Muscarinic receptor antagonist	Oral	In-house
	YM087 (conivaptan) <US: Filed in Jan. 2004>	U.S.A.	Hyponatremia	Vasopressin receptor antagonist	Injection	In-house
P-II	YM087 (conivaptan)	Europe U.S.A.	Acutely decompensated chronic heart failure	Vasopressin receptor antagonist	Injection	In-house
	YM178	Europe	Overactive bladder	Beta 3 receptor agonist	Oral	In-house
	YM443	U.S.A.	Functional dyspepsia	Acetylcholine level enhancer	Oral	Zeria
	YM150	Europe	Prevention of deep vein thrombosis (DVT) Prevention of thromboembolism in atrial fibrillation	Factor Xa inhibitor	Oral	In-house
	YM060 (ramosetron)	Europe	Irritable bowel syndrome (IBS)	5HT3 antagonist	Oral	In-house

*Launched; The Netherlands, U.K., Germany, France, Denmark, Ireland, Norway To be launched; 10 other European countries

(4) Overseas: New Formulations

Stage	Code No./ Generic name	Area	Therapeutic Target	Classification	Dosage Form	In-house/Alliance
Approved	Omnice-OCAS (tamsulosin-OCAS)* <Netherlands: Approved in Aug.2004>	Europe (The Netherlands)	Functional symptoms with benign prostatic hyperplasia	Alpha-1 receptor antagonist	Oral	In-house
P-II	YM617 (tamsulosin) Orally disintegrating tablet	Europe	Functional symptoms with benign prostatic hyperplasia	Alpha-1 receptor antagonist	Oral	In-house

*Omnice-OCAS (oral controlled absorption system)

(5) Projects at Early Stage: P-I/Preclinical

Stage	Therapeutic Area	Numbers of Projects
P-I/ Preclinical	Urinary System	3
	Cardiovascular	2
	Locomotorium	2
	Endocrine System	3
	Central Nervous System	1
	Other	3
	Total	14

(6) Projects Discontinued

Stage	Code	Area	Therapeutic Target	Classification
Filed	YM294	Japan	Chemotherapy-induced thrombocytopenia (Acute Myelogenous Leukemia)	Thrombopoietic growth factor (rhIL-11)
Differences remained between the regulatory authorities' views and Yamanouchi's even after repeated discussions on the benefit of IL-11 in the treatment of acute myeloid leukemia, and Yamanouchi concluded that it's study results would not lead to obtaining the approval.				
P-II	YM454	Japan	Cardiovascular echo imaging	Ultrasound contrast agent
Development for cardiovascular echo imaging was discontinued as a result of prior termination of relevant development for liver echo imaging.				