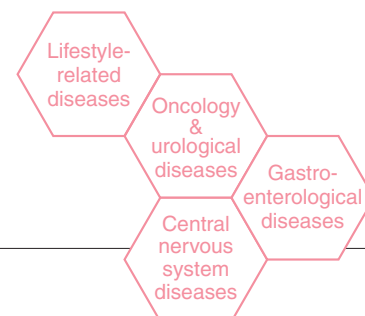


Research & Development



Basic Research Strategy

CHALLENGES TO THE BEST PRACTICE TOWARD REALIZING OUR MANAGEMENT MISSION

Takeda research and development has created four international strategic products (leuprolelin, lansoprazole, candesartan and pioglitazone), which is an example of our mission to strive toward better health for individuals and progress in medicine.

Although drug discovery now faces new and unprecedented challenges, we recognize that it is our mission to continue to further develop superior pharmaceutical products to help people around the world.

Therefore, in the 2006-2010 Medium-Term Management Plan, we have committed ourselves to the creation of new drugs by harnessing the collective efforts of our researchers and adopting "World Best Practice." This plan comprises of the following five tasks:

1. Maximization of new drug creation capability for both short term, and mid- and long-term range
2. Challenge to a new field of drug discovery with preparedness for paradigm shift of the pharmaceutical industry
3. Reform of research process and research management, pursuing quality and speed
4. Improvement of the operation system for enhancement of comprehensive research strength on a global scale.
5. Securing and nurturing excellent human resources as well as fostering free and vigorous research climate

In order to achieve these objectives, Takeda are implementing the "Tikarakobu research strategy" and establishing a multi-IND engine research structure.

PROMOTION OF "TIKARAKOBU" RESEARCH STRATEGY: focus resources, balance risk to drive the pipeline

Takeda is active in four core therapeutic areas: lifestyle-related diseases, oncology and urological diseases (including gynecological disorders), central nervous system diseases (including bone and joint diseases) and gastroenterological diseases.

We have adopted a "Tikarakobu strategy" ("Tikarakobu" literally means "bulging biceps," with "T" represents "Takeda") in which the projects are prioritized to focus research resources and offset risk. All projects in each therapeutic portfolio are assessed according to their likelihood to deliver a successful drug on the basis of competitive position, market trend and research feasibility. Research resources are concentrated on the highest priority projects; in addition selected contingency projects are pursued to allow a quick switch within the portfolio in the event of failure of the priority project. Thus the Tikarakobu strategy enables the optimum deployment of research resources to drive our research portfolio and effectively and speedily produce drugs to strengthen Takeda's product pipeline. Takeda aims to create five new products during the five years from 2011 to 2015 by focusing on the research projects of higher priority based on the Tikarakobu strategy.

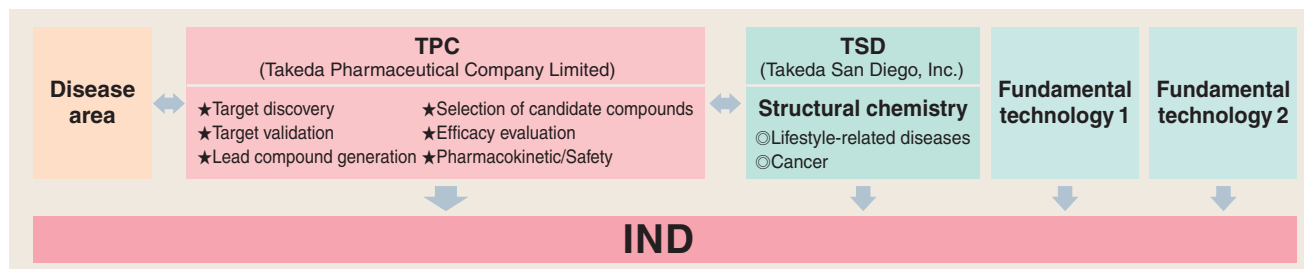
ESTABLISHMENT OF THE MULTI-IND ENGINES STRUCTURE

Following the revolutionary changes based on the fundamental new technologies that occurred to the drug discovery process in the 1990s such as high-throughput screening and genomics, most Western pharmaceutical companies are now establishing their own research strategies.

At Takeda, we have decided to pursue a "multi-IND* engine" strategy to establish a global network of research bases that can independently generate IND's to operate in addition to the domestic research centers and thus increase the overall capability and capacity of Takeda's research infrastructure. The consolidation of Takeda San Diego, Inc. (TSD) in 2005 is the first step of such movements to that effect.

The synergy generated between the different operating cultures and environments of the "multi-IND engine" research

Establishment of the Multi-IND Engine Structure



Drug discovery has entered a new era, when its unique "research model" is required. Takeda challenges "drug discovery" that contribute to the future of human beings based on the global R&D structure of high productivity and efficiency.

General Manager,
Pharmaceutical Research Div.
Shigenori Ohkawa



centers is promoting innovation and healthy competition to strive to achieve Takeda's global goals. In the future, Takeda will further enhance the research infrastructure aiming for early detection and flexible application of cutting-edge scientific and technical information, including the possibility of acquisition of venture companies with world-class expertise in antibody drugs, cancer and central nervous system diseases.

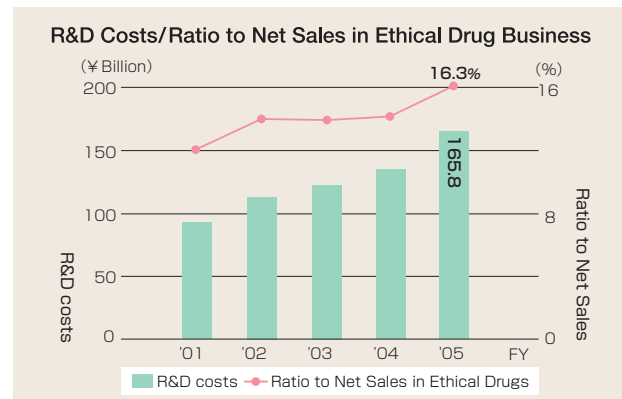
* IND (Investigational New Drug Application): Submission to the U.S. Food and Drug Administration (FDA) in order to conduct clinical trials on a new drug (candidate)

PROGRESS FOR THE GLOBAL RESEARCH SYSTEM

Last year TSD joined the Takeda group as the first overseas research base, adding its world-class high-throughput protein crystallography technology to our research platform and giving us a state-of-the-art rational drug design capability. Within one year of integration, TSD has already demonstrated notable successes, including solving a number of protein crystal structures for the first time in the world.

Furthermore, in the research projects of lifestyle-related diseases and cancer, as well as contributing to chemical compound design of other Takeda research centers, TSD is engaged itself in creating new candidate compounds as IND engine.

Based on vigorous interaction by joint projects and researcher exchange programs between TSD and Takeda's two domestic research centers, proactive solution of problems through information sharing and common utilization of research achievements are promoted. Takeda will further enhance the mutual cooperation and personnel exchange in order to increase such synergy effects. Takeda and TSD will, despite the totally different culture as a Japanese pharmaceutical company and a U.S. bio venture respectively, mutually learn from each other in order to lead our efforts to an innovation.



Research & Development

EFFORTS TOWARD THE EARLY LAUNCH OF NEW PRODUCTS ONTO THE TRI-POLAR MARKETS AND MAXIMIZATION OF ADDED VALUE OF THE PRODUCTS

By reinforcing the development system and its functions at a global level, Takeda aims to accelerate the progress of development stages of our products and to achieve its early launch onto the market in the tri-polar markets. As part of such efforts, Takeda has integrated the development functions in the U.S. and Europe, namely, Takeda Global Research & Development Center Inc. and the Takeda Global Research & Development Centre (Europe), Ltd. in the U.K. respectively, so that the clinical trials, applications for approval can be conducted under a close cooperative framework. In Japan, the development activities of each project tend to start based on the early development results in the U.S. and Europe, and accordingly, the timing of submission of application for product registration and the subsequent approval of each development project is relatively backward. In addition, the contents of application package required by the Japanese regulatory authorities are somewhat different from those of the U.S. and Europe. In order to improve that current situation, Takeda will promptly set up and establish a "framework for simultaneous application at the tri-polar markets," through the integrated operation of clinical development activities, which is one of the important tasks in development.

As for maximization of the added value of the products, Product Strategy Team (PST), which is composed of cross-division members such as research, development and marketing, is

now participating in the strategic product planning even from the research phase, in order to promote the maximization of added value of each product.

ENHANCEMENT OF THE R&D PIPELINE THROUGH IN-LICENSING AND ALLIANCE ACTIVITIES

Takeda positions in-licensing and alliance activities as important supplemental measures to enhance the R&D pipeline. As shown on the right page, we steadily and successfully entered into the alliance agreements in fiscal 2005 as well. Takeda proactively establishes a support system by appointing full-time personnel in charge of alliance and in-licensing activities in Japan and the U.S., aiming to develop these activities more effectively and flexibly at a global level.

Global Research & Development System



Pharmaceutical Research Div. (from left) Shinichiro Matsunaga, Akira Horinouchi, Hiroko Utsumi, Kazuyoshi Aso, Nobuhiro Nishigaki, Toshiya Moriwaki, Yasuko Teraoto



Takeda San Diego, Inc. (from left) Hua Zou, Sanjib Das, Stephen Kaldor (President), Petro Halkowycz, Melinda Manuel

Alliance Advances in In-Licensing and Alliance Activities from April 2005 Onwards

Partners	Contents
Paradigm Therapeutics Ltd. (U.K.)	In June 2005, Takeda and Paradigm agreed to enter into CNS therapeutic area alliance, and the project started in July 2005.
Merck KGaA (Germany)	In September 2005, Takeda entered into a co-development and co-promotion agreement for Matuzumab, a humanized monoclonal antibody against epidermal growth factor receptor which is implicated in the development and progression of cancer, created by Merck KGaA, covering Japan, Europe, the U.S.A. and some parts of Asia.
Pronova Biocare AS (Norway)	In November 2005, Pronova granted Takeda an exclusive development, marketing and distribution right in Japan for <i>Omacor</i> , for the treatment of hypertriglyceridemia.
Evotec AG (Germany)	In December 2005, based on the collaborative research with Evotec, Takeda acquired one of the candidates of the drug discovery in the area of Alzheimer's disease.
Alizyme plc (U.K.)	In January 2006, Takeda started phase II clinical studies of ATL-962 in Japan, a treatment for obesity and related diseases discovered by Alizyme.
Sucampo Pharmaceuticals, Inc. (U.S.A.)	In January 2006, the U.S. FDA approved an NDA of <i>Amitiza</i> , a treatment for chronic idiopathic constipation discovered and developed by Sucampo Pharmaceuticals and in April 2006, TPNA and Sucampo Pharmaceuticals jointly started marketing in the United States.
Affymax, Inc. (U.S.A.)	In February 2006, Takeda acquired an exclusive development and commercialization right for Affymax's lead product candidate, <i>Hematide</i> , in Japan for the treatment of chronic kidney disease/cancer related anemia. In June 2006, Takeda acquired an exclusive development and commercialization right for the product worldwide through conclusion of an exclusive global agreement for <i>Hematide</i> .
Lexicon Genetics (U.S.A.)	In March 2006, Takeda selected LG474, a target for drug discovery in the cardiovascular field, based on a program developed by Lexicon Genetics, and accordingly, Takeda acquired an exclusive right for LG-474.
BioNumerik Pharmaceuticals, Inc. (U.S.A.) ASKA Pharmaceutical Co., Ltd. (Japan) KI Pharmaceuticals, Inc. (Japan)	In March 2006, Takeda entered into a license agreement for <i>Tavocept</i> , a chemoprotective agent and acquired an exclusive right to market <i>Tavocept</i> in Japan. In July 2006, based on the results of a phase III trials for <i>Tavocept</i> conducted in the United States, Russia, Ukraine and Europe, Takeda and BioNumerik are continuing to discuss the data from the trials as well as considerations regarding the alliance agreement and the future development of <i>Tavocept</i> , with one possible alternative being termination of the existing <i>Tavocept</i> License and Development Alliance Agreement between Takeda and BioNumerik for the United States and Canada.
Arius Research Inc. (Canada)	In March 2006, Takeda entered into a joint research agreement with Arius Research Inc., and acquired the right to have exclusive access to a certain number of functional mouse monoclonal antibodies that have anti-cancer activities for a period of three years.
Cephalon, Inc. (U.S.A.)	In June 2006, Cephalon, Inc. and Takeda Pharmaceuticals North America, Inc. entered into an agreement to co-promote <i>Provigil</i> tablets, a wake-promoting agent.
Galaxy Biotech, LLC (U.S.A.)	In July 2006, Takeda acquired an exclusive worldwide right from Galaxy to develop, manufacture and market the HuL2G7, a humanized antibody that blocks the activity of human HGF, a growth factor believed to mediate proliferation, metastasis, anti-apoptosis and neoangiogenesis of many types of tumors.

Research & Development Pipeline

Development Code	Generic Name	Brand Name (Country/Region)	Drug Class
Franchise I: Lifestyle-Related Diseases			
TCV-116	Candesartan cilexetil	<i>Blopress</i> (Japan, Europe, Asia) <i>Amias, Kenzen</i> , etc. (Europe)	Angiotensin II receptor blocker
AD-4833	Pioglitazone hydrochloride	<i>Actos</i> (Japan, U.S.A. Europe, Asia) <i>Actoplus Met</i> (U.S.A.) <i>Competact</i> (Europe) <i>Duetact</i> (U.S.A.)	Insulin resistance-improving drug
AO-128	Voglibose	<i>Basen</i> (Japan, Asia)	α -glucosidase inhibitor
TAK-475	Not decided		Squalene synthase inhibitor
TAK-428	Not decided		Neurotrophic factor production accelerator
TAK-536	Not decided		Angiotensin II receptor blocker
LY333531	Ruboxistaurin		PKC β inhibitor
TAK-128	Not decided		Myelin formation accelerator
SYR-322	Not decided		DPP-4 inhibitor
ATL-962	Cetilistat		Lipase inhibitor
TAK-583	Not decided		Neuropathic pain-improving drug
TAK-491	Not decided		Angiotensin II receptor blocker
Franchise II: Oncology and Urological Diseases			
TAP-144-SR	Leuprorelin acetate	<i>Leuplin</i> (Japan), <i>Lupron Depot</i> (U.S.A.) <i>Enantone</i> , etc. (Europe, Asia)	LH-RH agonist
EMD72000	Matuzumab		Humanized monoclonal antibody against the human EGFR
R-851	Not decided		Immune response modifier
AF37702	Not decided	<i>Hematide</i> (U.S.A.)	Synthetic, peptide-based erythropoiesis-stimulating agent
BNP7787*	Dimesna	<i>Tavocept</i> (U.S.A.)	Chemotherapy supportive care drug
Franchise III: Central Nervous System Diseases, Bone/Joint Diseases			
TAK-375	Ramelteon	<i>Rozerem</i> (U.S.A.)	MT ₁ /MT ₂ receptor agonist
NE-58095	Risedronate	<i>Benet</i> (Japan)	Bone resorption inhibitor
Franchise IV: Gastroenterological Diseases			
AG-1749	Lansoprazole	<i>Takepron</i> (Japan, Asia), <i>Prevacid</i> (U.S.A., Asia) <i>Ogast, Agopton, Lansox</i> , etc. (Europe)	Proton pump inhibitor
TAK-242	Not decided		TLR4 signal transduction inhibitor
TAK-390MR	Not decided		Proton pump inhibitor
SPI-0211	Lubiprostone	<i>Amitiza</i> (U.S.A.)	Chloride channel opener

* Based on the results of two Phase III Trials for *Tavocept*, conducted in the United States, Russia, Ukraine and Europe, Takeda and BioNumerik are continuing to discuss the data from the trials as well as considerations regarding the alliance agreement and the future development of *Tavocept* considering possible termination of the existing *Tavocept* License and Development Alliance Agreement between Takeda and BioNumerik for the United States and Canada.

Indication/Formulation	Country/Region	Stage of Development				
		Phase I	Phase II	Phase III	NDA Submission	NDA Approval
Chronic heart failure	Japan	█	█	█	█	2005.10
Diabetic nephropathy	Japan	█	█			
Fixed combination with diuretic	Japan	█	█	█	█	2002.12
	Europe	█	█	█		
High doses	Japan	█	█	█		
Outcome study, DIRECT (Diabetic RETinopathy Candesartan Trial)	Europe	█	█	█		
Reduction of the risk of macrovascular events in patients with type 2 diabetes mellitus and pre-existing macrovascular disease	Europe	█	█	█	█	2005.12
Delay in progression of atherosclerosis	U.S.A.	█	█	█		
Combination drug of Actos/Metformin XT	U.S.A.	█	█	█	█	2006.03
Combination drug of Actos/Metformin	U.S.A.	█	█	█	█	2005.08
	Europe	█	█	█	█	2006.07
Combination drug of Actos/SU	U.S.A.	█	█	█	█	2006.07
	Europe	█	█	█	█	2005.07
Combination drug of Actos/TAK536	U.S.A.	█	█	█		
Concomitant therapy with metformin	Japan	█	█	█		
Impaired glucose tolerance (IGT)	Japan	█	█	█		
Hyperlipidemia	Japan	█				
	U.S.A.	█	█	█		
	Europe	█	█	█		
Diabetic neuropathy	U.S.A.	█	█			
	Europe	█	█			
Hypertension	U.S.A.	█	█			
	Europe	█	█			
Diabetic maculopathy	Japan	█	█			
Diabetic neuropathy	Japan	█	█			
	U.S.A.	█	█			
	Europe	█	█			
Diabetic mellitus	Japan	█				
	U.S.A.	█	█	█		
	Europe	█	█	█		
Obesity	Japan	█	█			
Post-herpetic neuralgia	Japan	█				
	U.S.A.	█	█			
	Europe	█	█			
Hypertension	U.S.A.	█	█			
	Europe	█	█			
3-month depot/premenopausal breast cancer	Japan	█	█	█	█	2005.08
	Europe (Germany, Italy, France)	█	█	█	█	2005.06/10/11
Gastric cancer, non-small cell lung cancer, colorectal cancer	Japan	█	█			
	U.S.A.	█	█			
	Europe	█	█			
Human papillomavirus (HPV) infection	U.S.A.	█	█			
Chronic kidney disease (CKD), cancer-related anemia	Japan	█	█			
	U.S.A.	█	█			
	Europe	█	█			
Prevention or reduction of neurotoxicity induced by anti cancer	Japan	█	█	█		
	U.S.A.	█	█	█		
Insomnia	Japan	█	█	█		
	Europe	█	█	█		
Circadian rhythm sleep disorder	U.S.A.	█	█			
Alzheimer's sleep/wake disturbance	U.S.A.	█	█			
Once-a-week formulation	Japan	█	█	█	█	2004.12
Paget's disease of bone	Japan	█	█	█		
Non-erosive reflux disease	Japan	█	█	█	█	2006.06
Injectable formulation: Upper gastrointestinal bleeding	Japan	█	█	█	█	2004.02
Severe sepsis	Japan	█	█	█		
	U.S.A.	█	█	█		
	Europe	█	█	█		
Erosive esophagitis and non-erosive gastro-esophageal reflux disease	Japan	█	█			
	U.S.A.	█	█	█		
Chronic idiopathic constipation	U.S.A.	█	█	█	█	2006.01
Constipation-predominant Irritable Bowel Syndrome	U.S.A.	█	█	█		