2012

Orphan drug, orphan medical device development promotion

NIBIO National Institute of Biomedical Innovation

Contents

Introduction

Development of new drugs and medical devices in Japan is a lengthy and costly process. For example, it is said that only 1 out of 31,064 new drug candidate compounds are approved for manufacture and sale.

This creates difficulties for development of drugs that are needed for only a small number of patients, for example, pharmaceuticals for intractable diseases such as multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS) and acquired immune deficiency syndrome (AIDS). These are called orphan drugs. A similar situation exists for medical devices, such as implantable ventricular assist devices, where, even though the medical needs are great, due to the small number of patients, return on investment in research and development is difficult. This leads to insufficient research and development efforts in general.

In 1993, the full-fledged public effort began to promote research and development by setting up the program to assist R&D efforts by private corporations.

This NIBIO program begins with approval by the Minister of the Ministry of Health, Labor and Welfare (MHLW) of the designation of orphan drugs or orphan medical devices, and follows up with guidance and advice on testing and research, grants, tax incentives, priority review and extension of the reexamination filing period.

In 1993, NIBIO picked up the development and promotion business that had been managed by the former Organization for Pharmaceutical Safety and Research (OPSR), providing guidance and advice and issuing grants for experimental research projects. In April 2005, NIBIO started the support program to develop orphan drugs and orphan medical devices.

[Source: "Pharmaceutical Industry Textbook 2011" (in Japanese), Japan Pharmaceutical Manufacturers Association]

Overview of the orphan drug and orphan medical device research and development promotion program

I Purpose

The purpose of this program is to make available to the medical field, as soon as possible, safe and effective orphan drugs and orphan medical devices, through grants to defray research and development costs and to provide guidance and advice on the testing and research needed for approval.

II Overview of the program

A. Obtaining the designation as an orphan drug or orphan medical device for rare diseases

Designation as an orphan drug or orphan medical device by the Minister of MHLW is not the same as approval for manufacture and sale. It is ordinarily granted during the development phase. To obtain this designation, all of the following requirements must be met, based on Article 77-2 of the Pharmaceutical Act:

[Reference: Director's Notice No. 725, August 25, 1993 Director General of the Pharmaceutical Affairs Bureau, MHLW]

(1) The number of patients having the disease indications is less than 50,000.

(2) The medical necessity is especially high. (There is no other appropriate alternative available for treatment in the form of pharmaceutical products or therapy, or it is significantly more effective or higher in safety characteristics in comparison with the existing medical and pharmaceutical products.)

(3) There is a high probability of developing it into a marketable product. (There is a theoretical basis for using the given pharmaceutical product, and the development plan shows high validity.)

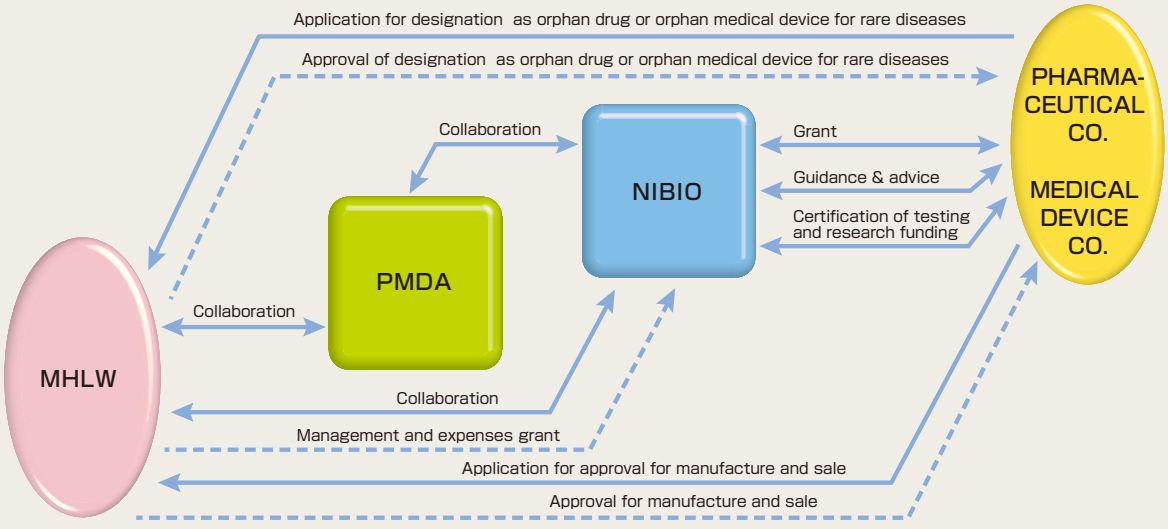
The definition of the regulation about the number of patients with the disease indications being less than 50,000 was revised and the method for calculating the number of such patients was clarified. Now, designation can be obtained for the following new drugs if the estimated number of patients who would be using the product is less than 50,000 at the time the application is filed:

[Reference: Excerpts from notice No. 0331007 by the Director of the Evaluation and Licensing Division, Pharmaceutical and Food Safety Bureau, MHLW, March 31, 2006]

a. A vaccine for an indicated infectious disease that is rare in Japan or occurs only overseas. It may be limited to those who visited the area of the epidemic or to a certain group of people, but it can be used for prevention.

b. A vaccine for the prevention of new strains of diseases from a genetic mutation or where the possibility of recurrence cannot be ruled out, with the potential for a significant impact on the life or health of the general public. However, the details such as the timing or size of the epidemic or other factors, or whether the disease outbreak will occur are unknown at the time the designation is filed.

Figure 1: Process of the orphan drug and orphan medical device research and development promotion program



A company that intends to obtain the designation to develop an orphan drug or an orphan medical device needs to file the application for designation approval with the Evaluation and Licensing Division of the Pharmaceutical and Food Safety Bureau of MHLW or the Office of Medical Device Examination Management of the Evaluation and Licensing Division of the Pharmaceutical and Food Safety Bureau of MHLW with an attachment that shows that it satisfies the requirements stated earlier. The Minister of MHLW approves the designation based on the recommendation from the Pharmaceutical Affairs and Food Sanitation Council.

B. Development status of orphan drugs and orphan medical devices

Table 1 shows the current status of orphan drugs and orphan medical devices designated for rare diseases, from program inception to September 13, 2012. The details for orphan drugs are listed in Table 4. Details for orphan medical devices are listed in Table 5.

Table 1: Status of approval of designation, development, and revocation by the fiscal year of designation for both orphan drugs and medical devices by fiscal year

Fiscal Year (Western)	Orphan drugs (No. items)				Orphan medical devices (No. items)			
	Designated	Approved	In development	Revoked	Designated	Approved	In development	Revoked
1993	40	33	0	7	2	2	0	0
1994	29	18	1	11	0	0	0	0
1995	11	7	0	5	2	1	0	1
1996	28	22	1	6	1	0	0	1
1997	4	2	1	1	0	0	0	0
1998	13	9	1	3	0	0	0	0
1999	14	12	1	2	2	2	0	0
2000	9	8	1	0	1	0	0	1
2001	8	4	0	4	2	2	0	0
2002	5	5	0	0	0	0	0	0
2003	7	6	1	0	0	0	0	0
2004	11	8	2	1	0	0	0	0
2005	3	2	1	0	2	1	1	0
2006	17	13	3	1	0	0	0	0
2007	8	7	1	0	1	1	0	0
2008	16	7	8	1	5	1	3	1
2009	4	2	2	0	3	2	1	0
2010	15	6	9	0	1	0	1	0
2011	27	5	22	0	1	0	1	0
2012	20	0	20	0	0	0	0	0
Total	**289**	**176**	**75**	**42**	**23**	**12**	**7**	**4**

Table 1 tracks the status changes for designated orphan drugs or orphan medical devices listed by fiscal year when the designation was obtained. "Approved status" signifies that the Minister of MHLW has approved the item for manufacture and sale. "In development" is for items in process of development. "Revoked" is for items for which the designation was revoked.

For example, 8 items obtained orphan drug designation in FY 2001. Since then, 4 items were approved while designation for 4 other items was revoked because the development effort was ended. On the other hand, 15 items were designated as orphan drugs in FY 2010. Within the following two years, 6 of these were approved and 9 items are in development, working toward approval for manufacture and sale.

Some items have more than one designation number. For instance, a corporation with a designated item that is merging or being acquired may file the application for a new designation for the same item. In such a case, this table uses the fiscal year of the original designation. This can also occur when there are multiple fiscal years for approval for manufacture and sale, for example when indications or effectiveness for different patient groups for the same item involve different development schedules. Table 1 also shows only the fiscal year for the first approval obtained.

C. Incentives to promote orphan drugs and orphan medical device research and development

Once a product obtains the designation of orphan drug or orphan medical device, it is eligible for the following incentives to promote research and development by MHLW, the Pharmaceuticals and Medical Devices Agency, and NIBIO.

(1) MHLW and the Pharmaceuticals and Medical Devices Agency

a. Priority consultation on clinical trials and priority review

When necessary, face-to-face consultation and approval review are given priority so that orphan drugs and orphan medical devices can be offered to the medical field as soon as possible.

b. Extension of re-examination period

Normally the period for the re-examination of the approved drugs is 8 years but it can be extended up to 10 years for approval of orphan drugs. For orphan medical devices, it can be extended from the normal 4 years to as much as 7 years.

(2) NIBIO provides:

a. Grants to assist the necessary R & D to develop the orphan drug or orphan medical device (Grants)

b. Guidance and advice regarding the R & D (Guidance and advice)

c. Paperwork certifying applicability of the R & D expenses for preferential tax treatment (Certification)

Overview of the NIBIO support program to develop orphan drugs and orphan medical devices

I Issuance of grants

When a corporation receives an orphan drug or orphan medical device designation, NIBIO provides grant funding to defray necessary project development costs, the so-called "Grant to Assist Research and Development of Orphan Drugs and Orphan Medical Devices." The cost to be defrayed is the direct cost of the necessary R & D from receipt of the designation through approval for manufacture and sale. The maximum grant amount is half of the actual cost. However, drugs for AIDS treatment are eligible to receive grants after filing the application for approval for manufacture and sale, if the corporation is required as a condition of approval to provide clinical trial data after manufacturing and sales have commenced.

After the grant application is filed by a corporation seeking to develop the item, NIBIO investigates the contents, purpose, cost, and test plan to come up with the specific grant

amount. The period of grant availability is, as a basic principle, three fiscal years starting from the fiscal year the grant was first disbursed. For instance, for a grant provided starting fiscal year 2012, the corporation can receive funding through fiscal year 2014.

After obtaining approval for manufacturing and sales, the corporation receiving the grant funds may be asked to donate to NIBIO a portion of the profits from the orphan drug or orphan medical device for a fixed time period after it was provided to the medical field. In such a case, the total donation amount should not exceed the total amount of grant funding received by the corporation. NIBIO uses this revenue for its business of supporting orphan drugs and orphan medical devices.

This grant is also categorized as a specific subsidy under the Small Business Innovation Research (SBIR) program based on the New Business Promotion Act. Small to medium sized corporations that received this grant also qualified to receive the supportive measures for commercialization of research, such as expansion of the loan guarantee facility under the Special Provisions of the Small and Medium-sized Enterprise Credit Insurance Act.

From 1993 through March 31, 2012, 269 drugs and 23 devices were designated as orphan drugs and orphan medical devices.

Out of the above, grant applications were filed for 139 drugs and 12 devices. Approximately 11.1 billion yen in total grant funding was provided. Approval was given for 89 orphan drugs and 4 orphan medical devices. Figure 2 shows the total amount of grant funding and the number of items by fiscal year. In FY 2011, 12 items received grants totaling 647 million yen.

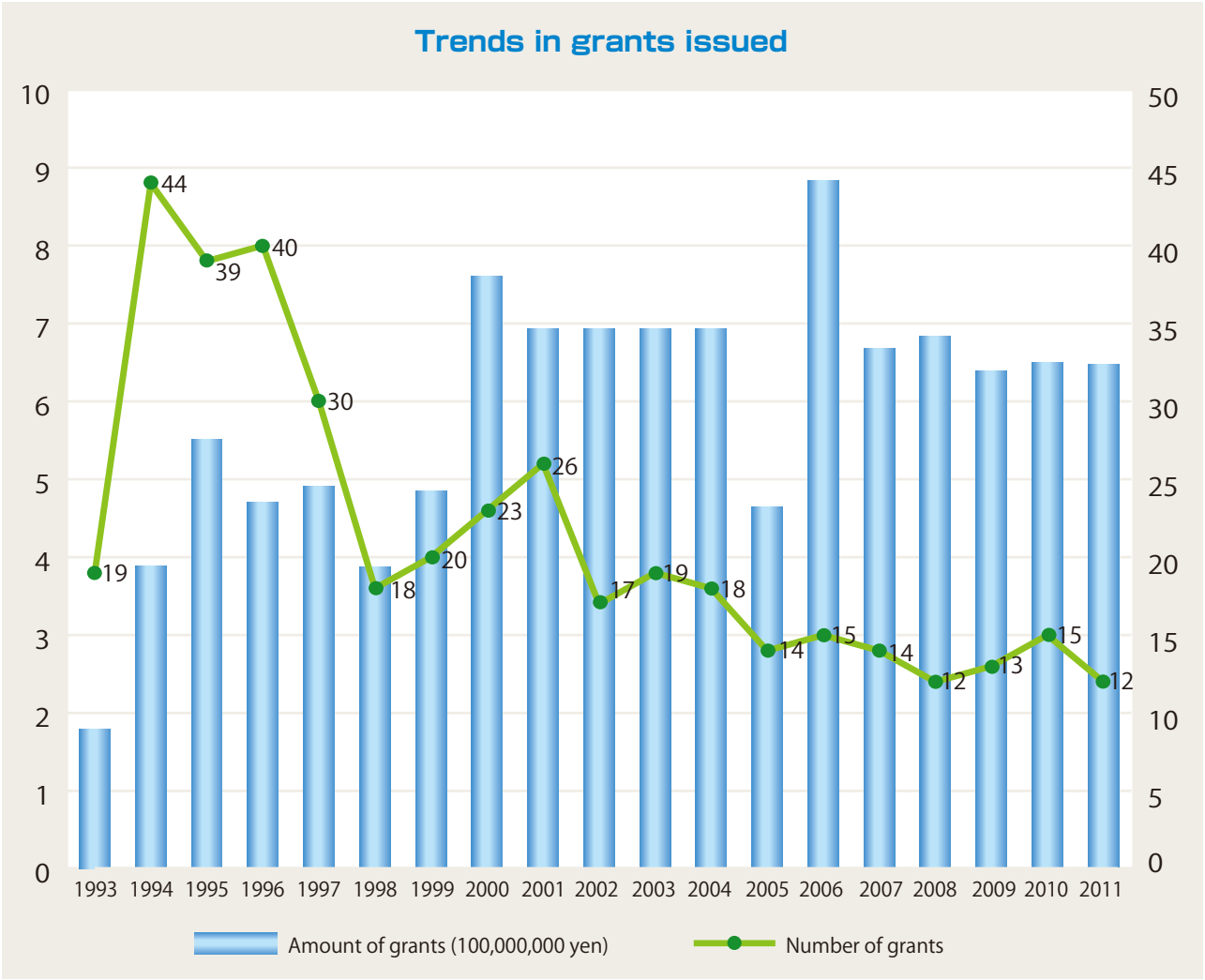


Table 2 shows the annual schedule for the grant program. For details of application documents and the contents of expenses covered by grants, please read the guide that can be downloaded from the NIBIO website and contact NIBIO if you have further questions.

Table 2　FY 2012 Grant Schedule

Grant application at the beginning of the fiscal year

1-1.	Briefing on development support system	April 24, 2012
1-2.	Briefing on applying for grants to support testing and research	April 26, 2012
2.	Period for receiving grant applications to support testing and research	May1, 2012 — May 31, 2012
3.	Hearing	May 14, 2012—June 30, 2012
4.	Notice of approval of grant applications to support testing and research	Early July
5.	First lump-sum payment for approximate expenses	Mid-August
6.	Field inspection of the project progress	Late September— late October
7.	Acceptance of notices of changes in the schedule for testing and research	December 1, 2012 — December 20, 2012
8.	Field inspection of accounting practices	Mid-January 2013— early February 2013
9.	Notice to approve changes in the testing and research plan	Mid February 2013
10.	Second lump-sum payment for approximate expenses	Mid-March 2013
11.	Acceptance of report of testing and research outcomes	March 31, 2013
12.	Notice of confirmed amount of the grant for testing and research (or notice to return the payment)	Mid-April 2013

Grant application in the middle of the fiscal year

1-1.	Briefing on development support system	April 24 2012
1-2.	Briefing on applying for grants to support testing and research	April 26 2012
2.	Period for receiving grant applications to support testing and research	November 1, 2012 — December 20, 2012, January 4, 2013— January 7, 2013
3.	Hearing	Immediately after the grant application is filed
4.	Field inspection of the project progress and accounting practice	Mid-January — Early February 2013
5.	Notice of approval of grant application to support testing and research	Mid February 2013
6.	Lump-sum payment for approximate expenses	Mid-March 2013
7.	Acceptance of report of testing and research outcomes	March 31, 2013
8.	Notice of confirmed amount of the grant for testing and research (or notice to return the payment)	Mid-April 2013

In addition to the investigation schedule shown in Table 2, at any time, spot investigations for progress status or accounting may be conducted.

Ⅱ Guidance and advice

In collaboration with MHLW and the Pharmaceuticals and Medical Devices Agency (PMDA), NIBIO provides guidance and advice regarding grants to help defray R & D costs for developers of orphan drugs and orphan medical devices. In this role, NIBIO may attend the developer's meeting at the Pharmaceuticals and Medical Devices Agency.

Tables 3-1 and 3-2 show the role division for consultations. NIBIO plays a consulting role from the time of obtaining the orphan drug or orphan medical device designation through the filing of the application for approval for manufacture and sale.

NIBIO provides consultation free of charge.

Table 3-1: Role division for consultation services for orphan drugs

MLHW Pharmaceutical and Food Safety Bureau (PFSB) Evaluation and Licensing Division	Consultation on filing the application for designation (prior to obtaining designation)
NIBIO	Consultation on development support from the time the designation was obtained to the time of filing the application for manufacture and sale
PMDA	Consultation on R & D up to the time of filing the application for manufacture and sale

Table 3-2: Role division of consultation services for orphan medical devices

MLHW Pharmaceutical and Food Safety Bureau (PFSB) Evaluation and Licensing Division Office of Medical Device Examination Management	Consultation on filing the application for designation (prior to obtaining designation)
NIBIO	Consultation on development support from the time the designation was obtained to the time to file the application for manufacture and sale
PMDA	Consultation on R & D up to the time of filing the application for manufacture and sale

Ⅲ Evaluation and approval

Based on the Special Taxation Measures Law, NIBIO approves and certifies the grant amount applied for the expenses for R & D carried out during the grant period by development corporations working on orphan drugs or orphan medical devices.

When the certification is obtained, after deducting the grant amount, the rest of the total amount of R&D expense for orphan drugs or orphan medical devices which received the support grant money is eligible for a tax incentive of 12% as a tax abatement. For more details about application procedure, please read the guideline that can be downloaded at the NIBIO website. If you need further clarification, please contact NIBIO.

Ⅳ Providing information regarding orphan drugs or orphan medical devices for rare diseases

The information about designation and approval of orphan drugs and orphan medical devices are publicly available on NIBIO's website. The orphan clinical trials website provides information about orphan drugs and orphan medical devices and available grant funding.

[NIBIO website]
http://www.nibio.go.jp

[Overview of the orphan drug and orphan medical device development support program]
http://www.nibio.go.jp/shinko/orphan.html

List of products designated as orphan drugs for rare diseases
http://www.nibio.go.jp/shinko/orphan/kisyoiyaku-hyo1.html

List of products designated as orphan medical devices for rare diseases
http://www.nibio.go.jp/shinko/orphan/kisyoiyaku-hyo2.html

Guideline (the Japanese language)

1: Guideline for filing for grants to support experimental research and development of orphan drugs and orphan medical devices for rare diseases

2: Guideline for computing the expenses eligible for financial support for orphan drugs and orphan medical devices for rare diseases

3: Guideline for filing the application for designation as special-case experimental research cost related to orphan drugs and orphan medical devices for rare diseases

[Clinical Trial projects for rare diseases website (orphan clinical trial website)]
http://www.nibio.go.jp/orphan/

Department of Research Promotion, Section of Development Promotion
National Institute of Biomedical Innovation
7-6-8, Saito-Asagi, Ibaraki City, Osaka-Fu, Japan
567-0085
Tel: +81-(0)72-641-9804 Fax +81-(0)72-641-9831 e-mail kisho-ph@nibio.go.jp

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2012	2012/9/13	(24yaku) No. 289		Cell Culture Derived Whole Virion Prototype Vaccine	Prophylaxis for pandemic influenza	Baxter Takeda Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 288		Tacrolimus hydrate	Interstitial pneumonia with Polymyositis,Dermatomyositis	Astellas Pharma Inc.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 287		Vemurafenib	$BRAF^{V600}$ mutation-positive metastatic melanoma	Chugai Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 286		Sirolimus	Lymphangioleiomyomatosis (LAM)	Nobelpharma Co.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 285		Infliximab recombinant	Intestinal Behcet's disease, Neuro-Behcet's disease, Vascular-Behcet's disease	Mitsubishi Tanabe Pharma Co.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 284		Infliximab recombinant	refractory Kawasaki disease	Mitsubishi Tanabe Pharma Co.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 283		Bevacizumab recombinant	glioblastoma	Chugai Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2012	2012/9/13	(24yaku) No. 282		Rituximab recombinant	refractory nephrotic syndrome	ZENOAQ	—	—	—	—	—	—		
2012	2012/8/16	(24yaku) No. 281		SBC-102	Lysosomal Acid Lipase Deficiency	Synageva BioPharma Corp.	—	—	—	—	—	—		
2012	2012/8/16	(24yaku) No. 280		alemtuzumab recombinant	Chronic lymphocytic leukemia	sanofi-aventis K.K.	—	—	—	—	—	—		
2012	2012/8/16	(24yaku) No. 279		Lenvatinib mesilate	Thyroid Cancer	Eisai Co., Ltd.	—	—	—	—	—	—		
2012	2012/8/16	(24yaku) No. 278		Ecallantide	acute attacks of hereditary angioedema	CMIC Co., Ltd.	—	—	—	—	—	—		
2012	2012/6/13	(24yaku) No. 277		Metreleptin	Treatment of diabetes or dyslipidemia due to lipoatrophy	Shionogi & Co., Ltd.	—	—	—	—	—	—		
2012	2012/6/13	(24yaku) No. 276		Miglustat Hydrochloride	Fabry's disease	GlaxoSmithKline K.K.	—	—	—	—	—	—		
2012	2012/6/13	(24yaku) No. 275		Type A influenza HA vaccine emulsion cell culture (prototype vaccine)	Prophylaxis for new strains of influenza	Kaketsuken	—	—	—	—	—	—		
2012	2012/6/13	(24yaku) No. 274		Type A influenza HA vaccine emulsion cell culture (strain H5N1)	Prophylaxis of H5N1 influenza	Kaketsuken	—	—	—	—	—	—		
2012	2012/6/13	(24yaku) No. 273		Bendamustine hydrochloride	Chronic lymphatic leukemia	SymBio Pharmaceuticals Ltd.	—	—	—	—	—	—		
2012	2012/5/11	(24yaku) No. 272		Eprodisate disodium	AA amyloidosis	C. T. Development Swiss Corp.	—	—	—	—	—	—		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2012	2012/5/11	(24yaku) No. 271		MPR-1020	Renal cystinosis	Mylan Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2012	2012/5/11	(24yaku) No. 270		Interferon gamma-1a (genetical recombination)	Mycosis fungoides (except stage of visceral dissemination) or Sézary syndrome	Shionogi & Co., Ltd.	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 269		Rurioctocog Alfa recombinant	Inhibit bleeding in patients with von Willebrand disease through plasma supplementation with blood coagulation factor VIII	Baxter	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 268		Recombinant von Willebrand factor (Rvwf)	Inhibit bleeding in patients with von Willebrand disease through plasma supplementation with von Willebrand factor	Baxter	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 267		Brentuximab vedotin	Anaplastic large cell lymphoma and CD30-positive Hodgkin's lymphoma	Takeda Pharmaceutical Co., Ltd. Takeda Bio Development Center, Ltd.	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 266		Clofarabine	Recurrent or refractory acute lymphocytic leukemia	Genzyme Japan K.K.	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 265		Z-521	Hypophosphatemia with rickets or osteomalacia	Zeria Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 264		Betaine anhydrous	Adjunctive therapy for homocystinuria with deficiency or abnormality of: cystathione-synthase β (CBS), 5 or 10-methylenetetrahydrofolate reductase (MTHFR), cobalamin (cbl) coenzyme metabolism	ReqMed Ltd.	—	—	—	—	—	—		
2011	2012/3/19	(24yaku) No. 263		Imatinib mesylate salt	Pulmonary arterial hypertension	Novartis Pharma K.K.	—	—	—	—	—	—		
2011	2012/2/15	(24yaku) No. 262		Pasireotide	Cushing's disease	Novartis Pharma K.K.	—	—	—	—	—	—		
2011	2011/12/14	(23yaku) No. 261		Imatinib mesylate	FIP1L1-PDGFR α-positive disease: Hypereosinophilic syndrome, chronic eosinophilic leukemia	Novartis Pharma K.K.	FIP1L1-PDGFR α-positive disease: Hypereosinophilic syndrome, chronic eosinophilic leukemia	Novartis Pharma K.K.	2012/2/22	Glivec tablet 100mg	Glivec® Tablets 100mg	Imatinib Mesilate		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2011	2011/12/14	(23yaku) No. 260		Thalidomide	Erythema nodosum leprosum	Fujimoto Pharmaceutical Co.	Erythema nodosum leprosum.	Fujimoto Pharmaceutical Co.	2012/5/25	Thaled capsule 50 Thaled capsule 100	THALED®CAPSULE 50 THALED®CAPSULE 100	Thalidomide		
2011	2011/12/14	(23yaku) No. 259		Tafamidis meglumine	Transthyretin amyloid polyneuropathy (familial amyloid polyneuropathy)	Pfizer Japan Inc.	—	—	—	—	—	—		
2011	2011/12/14	(23yaku) No. 258		Everolimus	Tuberous sclerosis	Novartis Pharma K.K.	—	—	—	—	—	—		
2011	2011/11/16	(23yaku) No. 257		Pazopanib hydrochloride	Progressive malignant soft tissue tumor	GlaxoSmithKline K.K.	—	—	—	—	—	—		
2011	2011/11/16	(23yaku) No. 256		Streptozocin	Pancreatic and gastrointestinal neuroendocrine tumors	Nobelpharma Co.	—	—	—	—	—	—		
2011	2011/11/16	(23yaku) No. 255		Hydrochloride Rirupibirin	HIV-1 infection	Janssen Pharmaceutical Co., Ltd.	HIV-1 infection	Janssen Pharmaceutical Co., Ltd.	2012/5/18	Edurant tablet 25mg	EDURANT® Tablets 25mg	Rilpivirine Hydrochloride		
2011	2011/9/8	(23yaku) No. 254		BIBF 1120	Idiopathic pulmonary fibrosis	Nippon Boehringer Ingelheim Co., Ltd.	—	—	—	—	—	—		
2011	2011/9/8	(23yaku) No. 253		Hemin	Acute porphyria attack	CMIC Co., Ltd.	—	—	—	—	—	—		
2011	2011/9/8	(23yaku) No. 252		Riociguat	Chronic thromboembolic pulmonary hypertension	Bayer Inc.	—	—	—	—	—	—		
2011	2011/9/8	(23yaku) No. 251		Tetrabenazine	Chorea associated with Huntington's disease	Alfresa Pharma Co., Ltd.	—	—	—	—	—	—		
2011	2011/9/8	(23yaku) No. 250		Ofatumumab recombinant	Chronic lymphatic leukemia	GlaxoSmithKline K.K.	—	—	—	—	—	—		
2011	2011/9/8	(23yaku) No. 249		Ruxolitinib	Myelofibrosis	Novartis Pharma K.K.	—	—	—	—	—	—		
2011	2011/8/8	(23yaku) No. 248	1	Caffeine citrate	Primary apnea in premature birth and low birth weight infants (apnea of prematurity)	Nobelpharma Co.	—	—	—	—	—	—		
2011	2011/6/10	(23yaku) No. 247		Rufinamide	Combination therapy with anti-epileptic drugs for tonic seizures or cataplexy in Lennox-Gastaut syndrome (four years or older)	Eisai Co., Ltd.	—	—	—	—	—	—		
2011	2011/6/10	(23yaku) No. 246		Sunitinib malate	Incurable unresectable pancreatic endocrine tumor	Pfizer Japan Inc.	—	—	—	Sutent capsule 12.5mg	SUTENT® Capsule	Sunitinib Malate		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2011	2011/6/10	(23yaku) No. 245		Trabectedin	Malignant soft tissue tumors with chromosome translocation	Taiho Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2011	2011/6/10	(23yaku) No. 244		Dornase alfa recombinant	Improvement of lung function in cystic fibrosis	Chugai Pharmaceutical Co., Ltd.	Improvement of lung function in cystic fibrosis	Chugai Pharmaceutical Co., Ltd.	2012/3/30	Pulmozyme inhalation solution 2.5mg	PULMOZYME® Inhalation Solution 2.5mg	Dornase Alfa (Genetical Recombination)		
2011	2011/5/13	(23yaku) No. 243		Velaglucerase alfa	Improvement of symptoms of Gaucher disease (anemia, thrombocytopenia, hepatosplenomegaly and bone symptoms)	Shire Human Genetic Therapies, Inc.	—	—	—	—	—	—		
2010	2011/3/9	(23yaku) No. 242		Miglustat	Niemann-Pick disease type C	Actelion Pharmaceuticals Japan Co., Ltd.	Niemann-Pick disease type C	Actelion Pharmaceuticals Japan Co., Ltd.	2012/3/30	Brazaves capsule 100mg	BRAZAVES® 100mg	Miglustat		
2010	2011/3/9	(23yaku) No. 241		Genz-112638	Type 1 Gaucher disease	Genzyme Japan K.K.	—	—	—	—	—	—		
2010	2011/3/9	(23yaku) No. 240		Apomorphine hydrochloride hydrate	Rescue therapy for the diurnal variation of symptoms in Parkinson's disease when usual drug therapy is not sufficiently effective.	Kyowa Hakko Kirin Co, Ltd.	Improvement of "off" symptoms in Parkinson's disease (If increasef dose of anti-Parkinson medication or frequent administration of levodopa-containing preparations provides insufficient effect)	Kyowa Hakko Kirin Co, Ltd.	2012/3/30	Apokyn subcutaneous injection 30mg	Apokyn® subcutaneous injection	Apomorphine Hydrochloride Hydrate		
2010	2011/3/9	(23yaku) No. 239		Stiripentol	Used in combination with clobazam and sodium valproate to assist infants with severe myoclonic epilepsy (Dravet syndrome) when control of tonic-clonic seizures or clonic seizure syndrome is insufficient with clobazam and sodium valproate.	Meiji Seika Co., Ltd.	—	—	—	—	—	—		
2010	2011/1/28	(22yaku) No. 238		Crizotinib	ALK fusion-gene positive advanced non-small-cell lung cancer	Pfizer Japan Inc.	Unresectable progressive or recurrent ALK fusion gene-positive non-small cell lung cancer	Pfizer Japan Inc.	2012/3/30	Xalkori capsule 200mg Xalkori capsule 250mg	XALKORI® Capsules 200mg XALKORI® Capsules 250mg	Crizotinib		
2010	2010/11/10	(22yaku) No. 237	2	GSK2402968	Duchenne muscular dystrophy	GlaxoSmithKline K.K.	—	—	—	—	—	—		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2010	2010/11/10	(22yaku) No. 236	1	Colistin sodium methanesulfonate	<Indicated pathogen> multidrug-resistant pathogenic organisms with sensitivity to this drug: multidrug-resistant Pseudomonas aeruginosa (MDRP), multidrug-resistant Acinetobacter, and other multidrug-resistant Gram-negative bacteria. <Indication> infectious diseases	GlaxoSmithKline K.K.	—	—	—	—	—	—		
2010	2010/11/10	(22yaku) No. 235		Bortezomib	Mantle cell lymphoma	Janssen Pharmaceutical K.K.	—	—	—	—	—	—		
2010	2010/11/10	(22yaku) No. 234		Bortezomib	Onset of multiple myeloma	Janssen Pharmaceutical K.K.	—	—	—	—	—	—		
2010	2010/9/14	(22yaku) No. 233	2	5-Aminolevulinic acid hydrochloride	tumor tissue visualization during malignant glioma tumorectomy	Nobelpharma Co.	—	—	—	—	—	—		
2010	2010/8/11	(22yaku) No. 232	1, 2 *27	KW-0761	CCR4-positive adult T-cell leukemia lymphoma *27	Kyowa Hakko Kirin Co, Ltd.	Recurrent or reflactory CCR4 positive adult T cell leukemia lymphoadnopathy *27	Kyowa Hakko Kirin Co, Ltd.	2012/3/30 *27	Poteligeo for IV infusion 20mg	POTELIGEO® Injection	Mogamulizumab (Genetical Recombination)		
2010	2010/8/11	(22yaku) No. 231		Canakinumab	For patients 2 years or older with Cryopyrin-Associated Periodic Syndrome: Familial cold autoinflammatory syndrome, Muckle - Wells syndrome, or neonatal onset multi-organ inflammatory disease	Novartis Pharma K.K.	Cryopyrin-Associated Periodic Syndrome with the following: familial cold autoinflammatory syndrome, Muckle - Wells syndrome, or neonatal onset multi-organ inflammatory disease	Novartis Pharma K.K.	2011/9/26	Ilaris for s.c. injection 150mg	Ilaris® for s.c. injection 150mg	Canakinumab (Genetical Recombination)		
2010	2010/6/16	(22yaku) No. 230	1 *28	Midismase recombinant *28	Idiopathic pulmonary fibrosis *28	LTT Bio-Pharma Co., Ltd.	—	—	—	—	—	—		
2010	2010/6/16 2011/6/10 *22	(22yaku) No. 229		BLB-750 (H5N1 cell culture influenza vaccine)	Prophylaxis of H5N1 influenza	2010-06-16 Baxter 2011-06-10 Takeda Pharmaceutical Co., Ltd. *22	—	—	—	—	—	—		
2010	2010/6/16	(22yaku) No. 228		Vorinostat	Cutaneous T-cell lymphoma	MSD Japan	Cutaneous T-cell lymphoma	MSD Japan	2011/7/1	Zolinza capsule 100mg	Zolinza®Capsule 100mg	Vorinostat		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2009	2009/10/28	(21yaku) No. 227		FTY720	Relapse or refractory disease for the following: - Low-grade B-cell non-Hodgkin lymphoma - Mantle cell lymphoma MCL	Symbio Pharmaceuticals	Relapse or refractory disease for the following: - Low-grade B-cell non-Hodgkin's lymphoma - Mantle cell lymphoma (MCL)	Symbio Pharmaceuticals	2010/10/27	Treakisym for IV infusion 100mg	TREAKISYM® Injection 100mg	Bendamustine hydrochloride		
2009	2009/9/11	(21yaku) No. 226		Polyethylene glycol-treated human immunoglobulin	Systemic myasthenia gravis (limited to when steroidal or non-steroidal immuno-suppressive agents as post-thymectomy treatment were ineffective)	Benesis Corporation	Systemic myasthenia gravis (limited to when steroidal or non-steroidal immunosuppressive agents were ineffective)	Benesis Corporation	2011/9/26	VenoglobulinIH5%I.V. 0.5g/10mL VenoglobulinIH5%I.V. 1g/20mL VenoglobulinIH5%I.V. 2.5g/50mL VenoglobulinIH5%I.V. 5g/100mL	Venoglobulin®IH 5%I.V.0.5g/10mL Venoglobulin®IH 5%I.V.1g/20mL Venoglobulin®IH 5%I.V.2.5g/50mL Venoglobulin®IH 5%I.V.5g/100mL	Polyethylene Glycol Treated Human Normal Immunoglobulin		
2009	2009/6/5	(21yaku) No. 225	3	Preparation for implanting carmustine in the brain	Malignant glioma	Nobelpharma Co.	—	—	—	—	—	—		
2009	2009/5/12	(21yaku) No. 224		Levodopa-carbidopa formulation for duodenal administration	(1) Parkinson's disease with severe mobility complications (Hoehn & Yahr severity stage IV or V - wearing-off and on, delayed on, on-off phenomenon, dyskinesia) when conventional oral drug therapy provides insufficient effect. (2) Parkinson's disease at Hoehn & Yahr severity stage I, II, or III, but limited to cases where gastrostomy has already been done due to dysphagia or for other reasons so that oral drug therapy is difficult.	Solvay Pharmaceuticals, Inc. (currently Abbott Japan Co., Ltd.)	—	—	—	—	—	—		
2008	2009/3/10	(21yaku) No. 223	3	Glatiramer acetate	Reduce frequency of recurrence in MS relapsing-remitting type	Teva Pharmaceuticals Ltd.	—	—	—	—	—	—		
2008	2009/2/9	(21yaku) No. 222	3	SUN11031	Increase the amount of food intake in anorexia nervosa (restricting type) or eating disorder not otherwise specified (insufficient food intake, low body weight, and no binging or purging)	Asubio Pharmaceuticals, Inc. (currently Daiichi Pharma)	—	—	—	—	—	—	Designation revoked (2012/5/11)	2012/5/11

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2008	2009/2/9	(21yaku) No. 221	3	MC710 (activated) Freeze dried human blood coagulation factor X added to activated blood coagulation factor VII	Suppress bleeding in congenital hemophilia patients with inhibitors to blood coagulation factor VIII or factor IX	Kaketsuken	—	—	—	—	—	—		
2008	2008/12/22	(20yaku) No. 220		Eculizumab	Paroxysmal nocturnal haemoglobinuria	Alexion Pharmaceuticals, Inc.	Inhibition of haemolysis on paroxysmal nocturnal haemoglobinuria	Alexion Pharmaceuticals, Inc.	2010/4/16	Soliris for IV infusion 300mg	Soliris®	Eculizumab (Genetical Recombination)		
2008	2008/12/15	(20yaku) No. 219		Talaporfin sodium	Increase light sensitivity in photodynamic therapy for malignant glioma	Meiji Seika Co., Ltd.	—	—	—	—	—	—		
2008	2008/12/11	(20yaku) No. 218		Freeze-dried sulfonated human normal Immunoglobulin	Improvement of neuropathy for the following diseases (limit to patients for which steroid treatment is ineffective): -Churg-Strauss syndrome -Allergic granulomatous angiitis	Kaketsuken, T Pharma Ltd.	Improvement of neuropathy for the following diseases (limit to patients for which steroid treatment is ineffective): -Churg-Strauss syndrome -Allergic granulomatous angiitis	Kaketsuken	2010/1/20	Kenketsu Venilon-I for I.V. injection 500mg Kenketsu Venilon-I for I.V. injection 1000mg Kenketsu Venilon-I for I.V. injection 2500mg Kenketsu Venilon-I for I.V. injection 5000mg	Kenketsu Venilon®-I Kenketsu Venilon®-I Kenketsu Venilon®-I Kenketsu Venilon®-I	Freeze-dried Sulfonated Normal Human Immunoglobulin		
2008	2008/11/17	(20yaku) No. 217		Azacitidine	Myelodysplastic syndrome	Nippon Shinyaku Co., Ltd	Myelodysplastic syndrome	Nippon Shinyaku Co., Ltd	2011/1/21	Vidaza for Injection 100mg	Vidaza® for Injection 100mg	Azacitidine		
2008	2008/9/12 2011/7/1 *25	(20yaku) No. 216		Sodium phenylbutyrate	Urea cycle disorders	2008-09-12 Ucyclid Pharma, Inc. 2011-07-11 CMIC Co., Ltd. *25	—	—	—	—	—	—		
2008	2008/9/12	(20yaku) No. 215	3	GSK1557484A (pandemic H5N1 influenza virus vaccine with adjuvant AS03 added prior to use)	Prophylaxis of H5N1 influenza	GlaxoSmithKline K.K.	—	—	—	—	—	—		
2008	2008/8/4	(20yaku) No. 214		Etravirine	HIV-1 Infection	Janssen Pharmaceutical K.K.	HIV-1 Infection	Janssen Pharmaceutical K.K.	2008/12/25	Intelence tablet 100mg	INTELENCE® Tablets	Etravirine		
2008	2008/8/4	(20yaku) No. 213		Maraviroc	CCR5-tropic HIV-1 Infection	Pfizer Japan Inc.	CCR5-tropic HIV-1 Infection	ViiV Healthcare	2008/12/15	Celsentri tablet 150mg	Celsentri® Tablets	Maraviroc		
2008	2008/6/6	(20yaku) No. 212		Forodesine hydrochloride	Recurring or refractory: Peripheral T-cell lymphoma; adult T-cell leukemia, lymphoma, Cutaneous T-cell lymphoma, T-cell acute lymphocytic leukemia, T cell lymphoblastic lymphoma	Mundipharma	—	—	—	—	—	—		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2008	2008/6/6 2011/11/16 *26	(20yaku) No. 211	3	UMN-0501 (influenza HA recombinant vaccine for H5N1) ASP7373 (influenza HA recombinant vaccine for H5N1) * 26	Prophylaxis of H5N1 influenza	UMN Pharma Inc. Astellas Pharma Inc. *26	—	—	—	—	—	—	Designation revoked (2011/11/16) *26	
2008	2008/6/6	(20yaku) No. 210		Tacrolimus hydrate	Myasthenia gravis when post-thymectomy steroid treatment is ineffective or it cannot be administered due to adverse side effects. *20	Astellas Pharma Inc.	Myasthenia gravis *20	Astellas Pharma Inc.	2009/10/16 *20	Prograf capsule 0.5mg Prograf capsule 1mg Prograf granule 0.2mg Prograf granule 1mg	Prograf® Capsules 0.5mg Prograf® Capsules 1mg Prograf® Granules 0.2mg Prograf® Granules 1mg	Tacrolimus Hydrate		
2008	2008/6/6	(20yaku) No. 209		Infliximab recombinant	Ankylosing spondylitis	Mitsubishi Tanabe Pharma Co.	The following diseases where other treatments are ineffective -Ankylosing spondylitis	Mitsubishi Tanabe Pharma Co.	2010/4/16	Remicade for I.V. infusion 100mg	REMICADE® for I.V. Infusion100	Infliximab (Genetical Recombination)		
2008	2008/5/21	(20yaku) No. 208	1	Natalizumab	Inhibit progression or prevent recurrence of recurring multiple sclerosis by administering this drug by itself	Biogen Idec Japan	—	—	—	—	—	—		
2007	2008/2/18	(20yaku) No. 207		CC-5013 lenaridomide	Anaemia due to low- or middle-1-risk Myelodysplastic syndrome with deletion of 5(q31-33) with or without other additional genetic abnormalities	Celgene K.K.	Myelodysplastic syndrome with deletion on the long arm of chromosome V	Celgene K.K.	2010/8/20	Revlimid capsule 5mg	Revlimid® Capsules 5mg	Lenalidomide Hydrate		
2007	2008/2/18	(20yaku) No. 206		CC-5013 lenaridomide	Relapse or refractory multiple myeloma limited to treatment-experienced patients	Celgene K.K.	Relapse or refractory multiple myeloma	Celgene K.K.	2010/6/25	Revlimid capsule 5mg	Revlimid® Capsules 5mg	Lenalidomide Hydrate		
2007	2008/2/18	(20yaku) No. 205		OPC-67683	Pulmonary tuberculosis	Otsuka Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2007	2007/11/26	(19yaku) No. 204		Raltegravir potassium	HIV-1 Infection	Banyu Pharmaceuticals	HIV-1 Infection	MSD Japan	2008/6/24	Isentress tablet 400mg	ISENTRESS® Tablets 400mg	Raltegravir Potassium		
2007	2007/9/13	(19yaku) No. 203		FTY720	Inhibiting the progression and preventing recurrence of multiple sclerosis	Mitsubishi Pharma Corp. Novartis Pharma K.K	Inhibiting the progression of physical disability and preventing recurrence in multiple sclerosis	Mitsubishi Tanabe Pharma Co., Ltd. Novartis Pharma K.K.	2011/9/26	Imusera capsule 0.5mg Gilenya capsule 0.5mg	IMUSERA® Capsules 0.5mg Gilenya® Capsules 0.5mg	Fingolimod Hydrochloride		
2007	2007/9/13	(19yaku) No. 202	1	Sapropterin hydrochloride	Reduction of blood phenylalanine (Phe) levels in patients with hyperphenylalaninemia HPA due to tetrahydrobiopterin BH4-responsive Phenylketonuria (PKU)	Asubio Pharma Co., Ltd	Reduction of blood phenylalanine (Phe) levels in patients with hyperphenylalaninemia HPA due to tetrahydrobiopterin BH4-responsive Phenylketonuria (PKU)	Daiichi Sankyo Company Ltd.	2008/7/16	Biopten granules 2.5%	BIOPTEN® GRANULES 2.5%	Sapropterin Hydrochloride		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2007	2007/6/5	(19yaku) No. 201	1	Galsulfase recombinant	Mucopolysaccharidosis VI	AnGes MG, Inc.	Mucopolysaccharidosis VI	AnGes MG, Inc.	2008/3/28	Naglazyme for IV infusion 5mg	Naglazyme®	Galsulfase (Genetical Recombination)		
2007	2007/5/16	(19yaku) No. 200	3	Ambrisentan	Pulmonary arterial hypertension	GlaxoSmithKline K.K.	Pulmonary arterial hypertension	GlaxoSmithKline K.K.	2010/7/23	Volibris tablet 2.5mg	Volibris® Tablets 2.5mg	Ambrisentan		
2006	2007/3/23	(19yaku) No. 199		Dasatinib hydrate	Chronic myeloid leukemia (CML) with resistance or intolerance to imatinib mesylate; refractory Philadelphia chromosome-positive acute lymphoblastic leukemia Ph+ALL	Bristol-Myers	Chronic myeloid leukemia (CML) with intolerance to imatinib mesylate; or accelerated-phase CML	Bristol-Myers	2009/1/21	Sprycel tablet 20mg Sprycel tablet 50mg	Sprycel® Tablets 20mg Sprycel® Tablets 50mg	Dasatinib Hydrate		
2006	2007/3/23	(19yaku) No. 198		Nilotinib hydrochloride hydrate	Chronic myeloid leukemia (CML) with resistance or intolerance to imatinib mesylate; refractory Philadelphia chromosome-positive acute lymphoblastic leukemia Ph+ALL	Novartis Pharma K.K.	Chronic myeloid leukemia (CML) with intolerance to imatinib mesylate; or accelerated-phase CML	Novartis Pharma K.K.	2009/1/21	Tasigna capsule 150mg Tasigna capsule 200mg	Tasigna® Capsules 150mg Tasigna® Capsules 200mg	Nilotinib Hydrochloride Hydrate		
2006	2007/3/23	(19yaku) No. 197	3	SB-497115-GR	Improvement of thrombocytopenia in chronic idiopathic thrombocytopenic purpura	GlaxoSmithKline K.K.	Chronic idiopathic thrombocytopenic purpura	GlaxoSmithKline K.K.	2010/10/27	Revolade tablet 12.5mg Revolade tablet 25mg	Revolade® Tablets 12.5mg Revolade® Tablets 25mg	Eltrombopag Olamine		
2006	2007/2/27	(19yaku) No. 196		Sildenafil citrate	Pulmonary arterial hypertension	Pfizer Japan Inc.	Pulmonary arterial hypertension	Pfizer Japan Inc.	2008/1/25	Revatio tablet 20mg	Revatio® Tablets 20mg	Sildenafil Citrate		
2006	2007/1/25	(19yaku) No. 195		Darunavir ethanolate	HIV Infection for the treatment ofexperienced patients who previously used antiretroviral drugs	Janssen Pharmaceutical K.K.	HIV Infection *19	Janssen Pharmaceutical K.K.	2007/11/22 2009/10/16 *19	Prezista tablet 300mg Prezista-naïve tablet 400mg	PREZISTANAIVE® Tablets PREZISTA® Tablets	Darunavir Ethanolate		
2006	2006/12/14	(18yaku) No. 194		Idursulfase	Mucopolysaccharidosis II	Genzyme Japan K.K.	Mucopolysaccharidosis II	Genzyme Japan K.K.	2007/10/4	Elaprase for IV infusion 6mg	ELAPRASE®	Idursulfase (Genetical Recombination)		
2006	2006/8/1	(18yaku) No. 193	3	Tolvaptan	Inhibit progression of polycystic kidney disease	Otsuka Pharmaceutical Co., Ltd.	—	—	—	—	—	—		
2006	2006/8/11 2010/2/2 *21	(18yaku) No. 192		AMG531	Improvement of thrombocytopenia in chronic Idiopathic thrombocytopenic purpura	2006-08-11 Amgen Development, Co. Inc. 2010-02-02 Kyowa Hakko Kirin Co, Ltd.	Improvement of thrombocytopenia in chronic Idiopathic thrombocytopenic purpura	Kyowa Hakko Kirin Co., Ltd.	2011/1/21	Romiplate subcutaneous injection 250μg for preparative purpose	Romiplate® for s.c. injection	Romiplostim (Genetical Recombination)		
2006	2006/6/9	(18yaku) No. 191		Leuprorelin acetate	Spinal and bulbar muscular atrophy	Takeda Pharmaceutical Co., Ltd	—	—	—	—	—	—		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2006	2006/6/9	(18yaku) No. 190	2	Risedronate sodium hydrate	Paget's disease of the bone	Ajinomoto Co. Inc. Takeda Pharmaceutical Co., Ltd.	Paget's disease of the bone	Ajinomoto Co. Inc. Takeda Pharmaceutical Co., Ltd.	2008/7/16	Actonel tablet 17.5mg Benet tablet 17.5mg	Actonel® Tablet 17.5mg BENET® Tablets 17.5mg	Sodium Risedronate Hydrate		
2006	2006/6/9	(18yaku) No. 189		Anecortave acetate	Age-related macular degeneration with subfoveal choroid neovascularization	Alcon Japan Ltd.	—	—	—	—	—	—	Designation revoked (2010/3/4)	2010/3/4
2006	2006/6/9	(18yaku) No. 188	2	Nelarabine	Relapse or refractory conditions for the following diseases in adult and pediatric patients: -T-cell acute lymphoblastic leukemia T-ALL -T-cell lymphoblastic lymphoma T-LBL -Adult T-cell leukemia-lymphoma	GlaxoSmithKline K.K.	Relapse or refractory conditions for the following diseases in adult and pediatric patients: -T-cell acute lymphoblastic leukemia T-ALL -T-cell lymphoblastic lymphoma T-LBL -Adult T-cell leukemia-lymphoma	GlaxoSmithKline K.K.	2007/10/19	Arranon G for intravenous injection 250mg	Arranon G® Injection	Nelarabine		
2006	2006/6/9	(18yaku) No. 187	2	Precipitated H5N1 Influenza vaccine	Prophylaxis of H5N1 influenza	Kaketsuken	Prophylaxis of H5N1 influenza	Kaketsuken	2010/10/27	H5N1 precipitated influenza vaccine "Kaketsuken"				
2006	2006/6/9	(18yaku) No. 186	1	Precipitated H5N1 Influenza vaccine	Prophylaxis of H5N1 influenza	Research Institute for Microbial Diseases, Osaka University	Prophylaxis of H5N1 influenza	Research Foundation for Microbial Diseases of Osaka University BIKEN	2007/10/19	H5N1 precipitated influenza vaccine "BIKEN"				
2006	2006/6/9	(18yaku) No. 185	1	Precipitated H5N1 Influenza vaccine	Prophylaxis of H5N1 influenza	Kitasato Institute	Prophylaxis of H5N1 influenza	Kitasato Daiichi Sankyo Vaccine Co., Ltd.	2007/10/19	H5N1 precipitated influenza vaccine "Kitazato Daiichi-Sankyo"				
2006	2006/6/9	(18yaku) No. 184	1	Precipitated H5N1 Influenza vaccine	Prophylaxis of H5N1 influenza	Denka Seiken Co., Ltd.	—	—	—	—	—	—		
2006	2006/5/8	(18yaku) No. 183		Doxorubicin hydrochloride liposome injection	AIDS-related Kaposi sarcoma	Janssen Pharmaceutical K.K.	AIDS-related Kaposi sarcoma	Janssen Pharmaceutical K.K.	2007/1/4	Doxil injection 20mg	DOXIL® Injection	Doxorubicin Hydrochloride		
2005	2006/3/10	(18yaku) No. 182		Ranibizumab	Age-related macular degeneration with subfoveal choroidal neovascularization	Novartis Pharma K.K.	Age-related macular degeneration with subfoveal choroidal neovascularization	Novartis Pharma K.K.	2009/1/21	Lucentis solution for intravitreal injection 2.3mg/0.23mL	LUCENTIS® solution for intravitreal injection 2.3mg/0.23mL	Ranibizumab (Genetical Recombination)		
2005	2006/2/10	(18yaku) No. 181		Alglucosidase alfa recombinant	Glycogen storage disease type II (Pompe disease)	Genzyme Japan K.K.	Glycogen storage disease type II (Pompe disease)	Genzyme Japan K.K.	2007/4/18	Myozyme for IV infusion 50mg	MYOZYME®	Alglucosidase Alfa (Genetical Recombination)		
2005	2005/6/20	(17yaku) No. 180		Edaravone	Amyotrophic lateral sclerosis (ALS)	Mitsubishi Pharma Corp.	—	—	—	—	—	—		
2004	2005/3/24	(17yaku) No. 179	3	Phenobarbital sodium IV solution	Neonatal convulsion	Nobelpharma Co.	Neonatal convulsion	Nobelpharma Co.	2008/10/16	Nobelbar 250mg for Injection	NOBELBAR® 250mg for Injection	Phenobarbital Sodium		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2004	2005/2/8	(17yaku) No. 178		Thalidomide	Multiple myeloma limited to cases where other treatments are ineffective	Fujimoto Pharmaceutical Co.	Relapse or refractory multiple myeloma	Fujimoto Pharmaceutical Co.	2008/10/16	Thaled capsule 50 Thaled capsule 100	THALED® CAPSULE 50 THALED® CAPSULE 100	Thalidomide		
2004	2005/2/8	(17yaku) No. 177		SOT-107	Glioma	The Sosei Co., Ltd.	—	—	—	—	—	—	Designation revoked (2007/8/3)	2007/8/3
2004	2005/1/13	(17yaku) No. 176		Ibritsumamab tiuxetan	Non-Hodgkin's lymphoma CD20-positive B-cell type	Nihon Schering K.K.	—	—	—	—	—	—		
2004	2004/11/5	(16yaku) No. 175	3	NPC-02	Wilson's disease	Nobelpharma Co.	Wilson's disease (i.e. hepatolenticular degeneration)	Nobelpharma Co.	2008/1/25	Nobelzin capsule 25mg Nobelzin capsule 50mg	NOBELZIN® Capsules 25mg NOBELZIN® Capsules 50mg	Zinc Acetate Hydrate		
2004	2004/10/13	(16yaku) No. 174	2	Fosamprenavir calcium hydrate	HIV Infection	GlaxoSmithKline K.K.	HIV Infection	ViiV Healthcare	2004/12/24	Lexiva tablet 700	Lexiva® Tablets 700	Fosamprenavir Calcium Hydrate		
2004	2004/10/13	(16yaku) No. 173		FTY720	Suppression of rejection after renal transplantation	Mitsubishi Pharma Corp. Novartis Pharma K.K.	—	—	—	—	—	—		
2004	2004/10/13	(16yaku) No. 172	1	Emtricitabine	HIV-1 Infection	Japan Tobacco, Inc.	HIV-1 Infection	Japan Tobacco, Inc.	2005/3/23	Emtriva capsule 200mg	Emtriva® Capsules 200mg	Emtricitabine		
2004	2004/7/7 2005/12/13 *18	(16yaku) No. 171 *18		Tacrolimus hydrate	Vernal conjunctivitis when anti-allergic drugs are ineffective	2004-7-7 Fujisawa Yakuhin 2005-12-13 Senju Pharmaceutical Co., Ltd. *18	Vernal conjunctivitis if anti-allergic drugs are ineffective	Astellas Pharma Inc. Senju Pharmaceutical Co., Ltd	2008/1/25	Talymus ophthalmic suspension 0.1%	TALYMUS® OPHTHALMIC SUSPENSION 0.1%	Tacrolimus Hydrate		
2004	2004/7/7	(16yaku) No. 170		Pegaptanib sodium	Age-related macular degeneration with subfoveal choroidal neovascularization	Pfizer Japan Inc.	Age-related macular degeneration with subfoveal choroidal neovascularizationAge-related macular degeneration with subfoveal choroidal neovascularization	Pfizer Japan Inc.	2008/7/16	Macugen IVT Inj. KIT 0.3mg	MACUGEN® IVT Inj. KIT 0.3mg	Pegaptanib Sodium		
2004	2004/7/7	(16yaku) No. 169		Valganciclovir	Cytomegalovirus (CMV) retinitis in patients with acquired immunodeficiency syndrome AIDS	Tanabe Pharma	Cytomegalovirus (CMV) retinitis in patients with acquired immunodeficiency syndrome AIDS	Mitsubishi Tanabe Pharma Co.	2004/11/5	Valixa Tablet 450mg	VALIXA® Tablets 450mg	Valganciclovir Hydrochloride		
2003	2004/3/22	(16yaku) No. 168		Argatroban	Anticoagulant for prophylaxis or treatment of thrombosis in patients with heparin-induced thrombocytopenia (HIT); prevention of coagulation of perfused blood during extracorporeal circulation in patients; anticoagulant for patients undergoing percutaneous coronary intervention (PCI) including those who are at risk of HIT.	Mitsubishi Pharma Corporation Daiichi-Seiyaku	Anticoagulant for hemodialysis patients with heparin-induced thrombocytopenia (HIT) type Ⅱ to prevent coagulation of perfused blood during extracorporeal circulation; anticoagulant for patients undergoing percutaneous coronary intervention (PCI) with HIT type Ⅱ or at risk of HIT type II; prophylaxis of thrombosis from HIT type Ⅱ.	Mitsubishi Tanabe Pharma Co. Daiichi-Sankyo	2008/7/16 2011/5/20 *17	Novastan HI inj. 10mg/2mL Slonnon HI injection 10mg/2mL	Novastan® HI inj. 10mg/2mL SLONNON® HI INJECTION	Argatroban Hydrate		
2003	2003/12/12	(15yaku) No. 167		Bortezomib	Relapse or refractory multiple myeloma	Janssen Pharmaceutical K.K.	Multiple myeloma *24	Janssen Pharmaceutical K.K.	2006-10-20 2011-9-16 new indications, new dosage *24	Velcade for injection 3mg	VELCADE® Injection	Bortezomib		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2003	2003/12/12	(15yaku) No. 166	1	Tenofovir disoproxil fumarate	HIV-1 Infection	Japan Tobacco, Inc.	HIV-1 Infection	Japan Tobacco, Inc.	2004/3/25	Viread tabet 300mg	Viread® Tab.300mg	Tenofovir Disoproxil Fumarate		
2003	2003/9/26	(15yaku) No. 165	1	Busulfan	Pretreatment for hematopoietic stem cell transplantation	Kirin K.K.	Pretreatment for allogenic hematopoietic stem cell transplantation; Pretreatment for autologous hematopoietic stem cell transplantation in patients with Ewing Sarcoma Family Tumors and neuroblastoma.	Kyowa Hakko Kirin Co, Ltd.	2006/7/26 2006/10/20 Approval of the expanded age indication	Busulfex for IV infusion 60mg	Busulfex® injection	Busulfan		
2003	2003/8/1	(15yaku) No. 164		Atazanavir	HIV-1 Infection	Bristol	HIV-1 Infection	Bristol-Myers	2003/12/18	Reyataz capsule 150mg Reyataz capsule 200mg	REYATAZ CAPSULES 150mg REYATAZ CAPSULES 200mg	Atazanavir Sulfate		
2003	2003/6/17 2004/3/30 *16	(15yaku) No. 163 *16	2	Amiodarone hydrochloride	The following recurrent life-threatening cardiac arrhythmias: - ventricular fibrillation - hemodynamically unstable ventricular tachycardia	2003-6-17 Taisho Pharmaceutical Co., Ltd., Taisho Sanofi-Synthélabo (currently Sanofi Aventis after Japan Winthrop Pharmaceutical) 2004-3-30 Sanofi-Synthélabo Corp. (currently Sanofi Aventis) *16	The following refractory life-threatening cardiac arrhythmias, limited to emergency cases: - ventricular fibrillation - hemodynamically unstable ventricular tachycardia	Sanofi Aventis	2007/1/26	Ancaron injection 150	Ancaron® inj. 150	Amiodarone Hydrochloride	Designation revoked (2004/3/30) *16	
2003	2003/5/29	(15yaku) No. 162		Preparation for implantation of intraocular fluocinolone acetonide	Uveitis extending to the posterior segment of the eye	Bausch & Lomb Japan	—	—	—	—	—	—		
2002	2003/1/31	(15yaku) No. 161		Bosentan	Pulmonary arterial hypertension	Actelion Pharmaceuticals Japan Ltd.	Pulmonary arterial hypertension; limit to Class III and IV of WHO criteria	Actelion Pharmaceuticals Japan Ltd.	2005/4/11	Tracleer tablet 62.5mg	Tracleer® 62.5	Bosentan hydrate		
2002	2002/12/2	(14yaku) No. 160	3	Tacrolimus hydrate	Lupus nephritis	Fujisawa Yakuhin	Lupus nephritis limited to cases where steroids are ineffective or cannot be administered due to adverse events	Astellas Pharma Inc.	2007/1/26	Prograf capsules 0.5mg Prograf capsules 1mg	Prograf® Capsules 0.5mg Prograf® Capsules 1mg	Tacrolimus Hydrate		
2002	2002/10/2	(14yaku) No. 159		Imatinib mesylate	Gastrointestinal stromal tumor	Nihon Ciba-Geigy K.K	KITCD117 positive gastrointestinal stromal tumor	Novartis Pharma K.K.	2003/7/17	Glivec tablet 100mg	Glivec® Tablets 100mg	Imatinib Mesilate		
2002	2002/10/2	(14yaku) No. 158	3	Nitric oxide	Improvement of hypoxemic respiratory failure with pulmonary hypertension. Limit to neonates.	Ino Therapeutics Inc. Domestic agent in Japan: Parexel International	Improvement of hypoxemic respiratory failure in neonates with pulmonary hypertension	Ino Therapeutics, LLC; Air Water Co. is exclusive manufacturing agent	2008/7/16	Inoflo for inhalation 800ppm	INOflo® for inhalation 800ppm	Nitric Oxide		
2002	2002/6/17	(14yaku) No. 157		Epoprostenol sodium	Pulmonary arterial hypertension excluding primary pulmonary hypertension	GlaxoSmithKline K.K.	Pulmonary arterial hypertension	GlaxoSmithKline K.K.	2004/6/22	Flolan for intravenous injection 0.5mg Flolan for intravenous injection 1.5mg	Flolan® for injection 0.5mg Flolan® for injection 1.5mg	Epoprostenol Sodium		
2001	2002/3/15	(14yaku) No. 156		Infliximab	Refractory uveitis caused by Behcet's disease, limited to cases where other treatments are insufficient	Tanabe Pharma	Refractory uveitis caused by Behcet's disease, limited to cases where other treatments are insufficient	Mitsubishi Tanabe Pharma Co.	2007/1/26	Remicade for I.V. infusion 100mg	REMICADE® for I.V. Infusion100	Infliximab (Genetical Recombination)		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2001	2001/8/24	(13yaku) No. 155	3	OPC-31260	Improvement of hyponatremia due to inappropriate secretion of vasopressin	Otsuka Pharmaceutical Co., Ltd.	Improvement of hyponatremia in patients with syndrome of inappropriate antidiuretic hormone hypersecretion (SIADH) due to ectopic antidiuretic hormone generating tumor. Limit to cases where other treatments are insufficient	Otsuka Pharmaceutical Co., Ltd.	2006/7/26	Physuline tablet 30mg	Physuline® tablets 30mg	Mozavaptan Hydrochloride		
2001	2001/8/1	(13yaku) No. 154	2	Tiracoxib	Familial adenomatous polyposis	Japan Tobacco, Inc.	—	—	—	—	—	—	Designation revoked (2004/3/22)	2004/3/22
2001	2001/4/23 2003/11/5 *15	(15yaku) No. 153 *15	7	Anti-type II Shiga-like toxin humanized monoclonal antibody	Inhibition of hemolytic uremic syndrome, encephalopathy or hemolytic anemia due to Escherichia coli infection producing Shiga-type II-like toxin	2001-4-23 T Ltd. 2003-11-5 T Pharma Co., Ltd. *15	—	—	—	—	—	—	Designation revoked (2003/11/5) Designation revoked (2010/5/13) *15	2003/11/5
2001	2001/4/23	(13yaku) No. 152	7	Vancomycin ophthalmic ointment	Ocular infections such as blepharitis, conjunctivitis or keratitis caused by methicillin-cephem-resistant Staphylococcus aureus or Staphylococcus epidermidis	Toa Pharmaceuticals Co., Ltd	<Indication> The following diseases where other treatments are insufficient - conjunctivitis - blepharitis - meibomianitis - dacryocystitis <Indicated bacterial strain> Vancomycin-sensitive, methicillin-resistant Staphylococcus aureus or Staphylococcus epidermidis	Toa Pharmaceuticals Co., Ltd	2009/10/16	Vancomycin ophthalmic ointment 1%	Vancomycin Ophthalmic Ointment 1%	Vancomycin Hydrochloride		
2001	2001/4/23	(13yaku) No. 151	5	Baclofen intrathecal continuous infusion	Severe spastic paralysis caused by cerebral infantile palsy, spinal vascular disorder, cervical spondylosis, ossification of posterior longitudinal ligament, multiple sclerosis, spinocerebellar degeneration (i.i. hereditary spastic paraplegia) or posttraumatic complications in spinal injury or head trauma	Daiichi Pharma	Severe spastic paralysis caused by cerebrospinal injury limited to cases where effects from other treatments are insufficient	Daiichi Sankyo Company Ltd.	2005/4/11 2007/1/26 Approval of the expanded age indication	Gabalon intrathecal 0.005% 1mL Gabalon intrathecal 0.05% 20mL Gabalon intrathecal 0.2% 5mL	GABALON INTRATHECAL INJECTION 0.005% GABALON® INTRATHECAL INJECTION 0.05% GABALON® INTRATHECAL INJECTION0.2%	Baclofen		
2001	2001/4/23 2003/11/5 *14	(15yaku) No. 150 *14	5	Freeze dried sulfonated human immunoglobulin	Reduction of frequency of exacerbation attacks in multiple sclerosis (MS); suppression of MS progression to severity	2001-4-3 Teijin Ltd. 2003-11-5 T Pharma *14	—	—	—	—	—	—	Designation revoked (2003/11/5) Designation revoked (2012/3/19) *14	2012/3/19
2001	2001/4/23	(13yaku) No. 149		Freeze dried sulfonated human immunoglobulin	Reduction of frequency of exacerbation attacks in multiple sclerosis (MS); suppression of MS progression to severity	Kaketsuken	—	—	—	—	—	—	Designation revoked (2012/3/19)	2012/3/19
2000	2000/11/27	(12yaku) No. 148		Didanosine	RHIV-1 infection	Bristol	HIV-1 infection	Bristol-Myers	2001/3/7	Videx EC capsule 125 Videx EC capsule 200	VIDEX EC CAPSULES／Enteric-Coated Beadlets VIDEX EC CAPSULES／Enteric-Coated Beadlets	Didanosine		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
2000	2000/12/20	(12yaku) No. 147		Azithromycin hydrate	Disseminated mycobacterial infection in patients with AIDS	Pfizer Japan Inc.	Prophylaxis and treatment of Mycobacterium avium complex (MAC) in patients with AIDS		2001/12/13	Zithromac tablet 600mg	ZITHROMAC® Tablets 600mg	Azithromycin Hydrate		
2000	2000/12/20	(12yaku) No. 146		Imidapril hydrochloride	Insulin-dependent diabetic nephropathy	Tanabe Pharma	Diabetic nephropathy in type 1 diabetes mellitus	Mitsubishi Tanabe Pharma Co.	2002/1/17	Tanatril tablet 2.5 Tanatril tablet 5	TANATRIL® Tablets 2.5 TANATRIL® Tablets 5	Imidapril Hydrochloride		
2000	2000/12/20	(12yaku) No. 145		IHumanized Interleukin-6 IL-6 receptor-inhibiting monoclonal antibody recombinant	Castleman's disease	Chugai Pharmaceutical Co., Ltd	Improvement in Castleman's disease of symptoms including general malaise and test data for high C-reactive protein, high fibrinogen, enhancement of erythrocyte sedimentation rate, low haemoglobin, low albumin. Limit to patients where lymphad-enectomy is contraindicated.	Chugai Pharmaceutical Co., Ltd	2005/4/11	Actemra for IV infusion 80mg Actemra for IV infusion 200mg Actemra for IV infusion 400mg	ACTEMRA® 80 mg for Intravenous Infusion ACTEMRA® 200 mg for Intravenous Infusion ACTEMRA® 400 mg for Intravenous Infusion	Tocilizumab (Genetical Recombination)		
2000	2000/12/20	(12yaku) No. 144		4-(4-methyl-piperazine-1-ylmethyl)-N-[4-methyl-3-[(4-pyridine-3-yl)-pyrimidine-2-ylamino]phenyl] benzamide-methanesulfonate	Philadelphia-positive myeloid leukemia	Novartis Pharma K.K.	Chronic myelogenous leukemia; Philadelphia-positive acute lymphoblastic leukemia	Novartis Pharma K.K.	2001/11/21 Chronic myelogenous leukemia 2007/1/31 Philadelphia chromosome-positive acute lymphoblastic leukemia	Glivec tablet 100mg	Glivec® Tablets 100mg	Imatinib Mesilate		
2000	2000/9/20	(12yaku) No. 143		Lopinavir	HIV-1 infection	Dainabot Co., Ltd	HIV-1 infection	Abbott Japan Co., Ltd	2000/12/12	Kaletra PO liquid Kaletra tablet	Kaletra® Kaletra®	Lopinavir, Ritonavir		
2000	2000/9/20	(12yaku) No. 142	5	Human recombinant follitropin alfa	Hypogonadotropic male hypogonadism	Serono Japan	Spermatogenesis induction in patients with hypogonadotropic male hypogonadism	Merck Serono Co., Ltd.	2006/1/23	Gonalef 75 Gonalef 150 Gonalef Pen 300 Gonalef Pen 450 Gonalef Pen 900	Gonalef® 75 Gonalef® 150 Gonalef® Pen 300 Gonalef® Pen 450 Gonalef® Pen 900	Follitropin Alfa (Genetical Recombination)		
2000	2000/6/16	(12yaku) No. 141		Somatropin recombinant	Improvement of body composition in patients with Prader-Willi syndrome	Pharmacia Upjohn	Short stature in patients with the following disease without epiphyseal line occlusion -Prader-Willi syndrome	Pfizer Japan Inc.	2002/1/17	Genotropin TC Inj. 5.3mg Genotropin TC Inj. 12mg Genotropin GoQuick Inj. 5.3mg Genotropin GoQuick Inj. 12mg Genotropin MiniQuick s.c. inj. 0.6mg Genotropin MiniQuick s.c. inj. 1.0mg Genotropin MiniQuick s.c. inj. 1.4mg	Genotropin® TC Inj. 5.3mg Genotropin® TC Inj. 12mg Genotropin® GoQuick Inj. 5.3mg Genotropin® GoQuick Inj. 12mg Genotropin® MiniQuick s.c. inj. 0.6mg Genotropin® MiniQuick s.c. inj. 1.0mg Genotropin® MiniQuick s.c. inj. 1.4mg	Somatropin (Genetical Recombination)		
2000	2000/4/3	(11yaku) No. 140		Ganciclovir implant - intraocular	Cytomegalovirus retinitis in AIDS patients	Bausch & Lomb Japan	—	—	—	—	—	—		
1999	2000/1/6	(11yaku) No. 139	6	Modafinil	Narcolepsy	AsWell	Excessive drowsiness in patients with narcolepsy	Alfresa Pharma Corporation	2007/1/26	Modiodal tablet 100mg	MODIODAL® Tablets 100mg	Modafinil		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1999	2000/1/6 2002/12/2 *13	(14yaku) No. 138 *13		Polyethylene glycol treated human immunoglobulin	Steroid treatment-resistant polymyositis or dermatomyositis complex (limited to muscle weakness being clearly observed and interfering with daily activities)	2000-1-6 Yoshitomi Pharmaceutical Co. Ltd. 2002-12-2 Mitsubishi Pharma Corporation *13	Improvement of muscle weakness in polymyositis or dermatomyositis complex (limited to when steroids are ineffective.)	Benesis Corporation	2010/10/27	VenoglobulinIH5%I.V. 0.5g/10mL VenoglobulinIH5%I.V. 1g/20mL VenoglobulinIH5%I.V. 2.5g/50mL VenoglobulinIH5%I.V. 5g/100mL	Venoglobulin®IH 5%I.V.0.5g/10mL Venoglobulin®IH 5%I.V.1g/20mL Venoglobulin®IH 5%I.V.2.5g/50mL Venoglobulin®IH 5%I.V.5g/100mL	Polyethylene Glycol Treated Human Normal Immunoglobulin	Designation revoked (2002/12/2) *13	
1999	2000/1/6 2003/7/1 *12	(15yaku) No. 137 *12	5	levocarnitine	Erythropoietin-resistant renal anemia in hemodialysis patients	2000-1-6 Shimizu Pharmaceuctical 2003-7-1 Ajinomoto Co. Inc. *12	—	—	—	—	—	—	Designation revoked (2003/7/1) Designation revoked (2006/2/3) *12	2003/7/1
1999	1999/12/9	(11yaku) No. 136		Delavirdine mesylate	HIV-1 infection	Warner-Lambert	HIV-1 infection	ViiV Healthcare	2000/2/25	Rescriptor tablet 200mg	—	—	Designation revoked (2012/9/13)	
1999	1999/11/24	(11yaku) No. 135	1	Saquinavir	HIV-1 infection	Nippon Roche Ltd.	HIV-1 infection	Chugai Pharmaceutical Co., Ltd	2000/4/6	Fortovase capsules	—	—	This formulation is no longer being supplied. Designation number "Drug 8 No. 103" is being supplied instead.	
1999	1999/8/25	(11yaku) No. 134	2	Alpha-galactosidase A	Improvement of various symptoms in patients with Fabry's disease	Genzyme Japan K.K.	Fabry's disease	Genzyme Japan K.K.	2004/1/29	Fabrazyme for IV infusion 5mg Fabrazyme for IV infusion 35mg	FABRAZYME®	Agalsidase Beta (Genetical Recombination)		
1999	1999/8/25	(11yaku) No. 133	4	Alpha-L-iduronidase	Improvement of various symptoms in patients with mucopolysaccharidosis	Genzyme Japan K.K.	Mucopolysaccharidosis Type I	Genzyme Japan K.K.	2006/10/20	Aldurazyme for IV infusion 2.9mg	ALDURAZYME®	Laronidase (Genetical Recombination)		
1999	1999/8/25	(11yaku) No. 132		Trastuzumab	Metastatic breast cancer with overexpression of HER2	Nippon Roche Ltd.	Metastatic breast cancer with overexpression of HER2	Chugai Pharmaceutical Co., Ltd	2001/4/4	Herceptin for injection 60 Herceptin for injection 150	HERCEPTIN® Intravenous Infusion 60 HERCEPTIN® Intravenous Infusion 150	Laronidase (Genetical Recombination)		
1999	1999/8/25	(11yaku) No. 131	1	Cyclosporine eye drop	Vernal conjunctivitis when anti-allergic drugs are ineffective	Santen Pharmaceutical Co., Ltd.	Vernal conjunctivitis if anti-allergic drugs are ineffective	Santen Pharmaceutical Co., Ltd.	2005/10/11	Papilock Mini ophthalmic solution 0.1%	PAPILOCK® Mini ophthalmic solution 0.1%	Ciclosporin		
1999	1999/8/25	(11yaku) No. 130		Basiliximab	Inhibition of acute rejection after renal transplantation	Novartis Pharma K.K.	Inhibition of acute rejection after renal transplantation	Novartis Pharma K.K.	2002/1/17	Simulect i.v. injection 20mg Simulect i.v. injection 10mg for pediatric	Simulect® i.v. injection 20mg Simulect® i.v. injection 10mg for pediatric	Basiliximab (Genetical Recombination)		
1999	1999/7/9	(11yaku) No. 129	5	Abacavir	AIDS; symptomatic and asymptomatic HIV Infection	GlaxoWelcome	HIV-1 infection	ViiV Healthcare	1999/9/10	Ziagen tablet 300mg	Ziagen® Tablets 300mg	Abacavir Sulfate		
1999	1999/6/29	(11yaku) No. 128		Efavirenz	AIDS; symptomatic and asymptomatic HIV Infection	Banyu Pharmaceuticals	HIV-1 infection	MSD Japan	1999/9/10	Stocrin tablet 200mg Stocrin tablet 600mg	STOCRIN® Tablets 200mg STOCRIN® Tablets 600mg	Efavirenz		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1999	1999/5/27	(11yaku) No. 127	4	Alpha-galactosidase A	Improvement of various symptoms in patients with Fabry's disease	Sumitomo Pharmaceuticals	Fabry's disease	Dainippon Sumitomo Pharma Co., Co., Ltd	2006/10/20	Replagal for IV infusion 3.5mg	REPLAGAL®	Agalsidase Alfa (Genetical Recombination)		
1999	1999/5/27 2004/8/5 2010/7/2 *11	(11yaku) No. 126 *11	3	1999-5-27 Anagrelide hydrochloride 2000-7-2 Anagrelide hydrochloride *11	Essential thrombocythemia	1999-5-27 Robert Pharmaceuticals Co. 2004-8-5 Kirin Brewery (currently Kyowa Hakko Kirin) 2010-7-2 Shire Pharmaceuticals Ireland Ltd. *11	—	—	—	—	—	—	Designation revoked (2004/8/5) Designation revoked (2010/7/2) *11	2004/8/5
1998	1999/3/17	(11yaku A) No. 125	3	Methionyl human stem cell factor	Aplastic anemia	Amgen	—	—	—	—	—	—	Designation revoked (2003/7/1)	2003/7/1
1998	1999/3/4	(11yaku A) No. 124		Vancomycin hydrochloride	Meningitis,septicaemia or pneumonia due to high penicillin-resistant Streptococcus pneumoniae	Eli Lilly Japan K.K	<Indicated bacterial strain> Vancomycin-sensitive penicillin-resistant Streptococcus pneumonia(PRSP) <Indication> -Septicaemia -Pneumonia -Purulent meningitis	Shionogi & Co., Ltd.	2004/10/22	Vancomycin Hydrochloride for IV infusion 0.5g Vancomycin Hydrochloride for IV infusion kit 0.5g	Vancomycin	Vancomycin Hydrochloride		
1998	1999/3/4	(11yaku A) No. 123	5	Interferon beta 1a	Multiple sclerosis	Genzyme Japan K.K.	Prevention of relapse of multiple sclerosis	Biogen Idec Japan Ltd.	2006/7/26	Avonex intramuscular injection syringe 30μg	AVONEX® IM Injection Syringe	Interferon Beta - 1a (Genetical Recombination)		
1998	1999/3/4	(11yaku A) No. 122		Tacrolimus hydrate	Generalized myasthenia gravis limited to cases where steroid treatments are ineffective or cannot be administered due to adverse effects during post-thymectomy treatment	Fujisawa Yakuhin	Generalized myasthenia gravis limited to cases where steroid treatments are ineffective or cannot be administered due to adverse effects during post-thymectomy treatment	Astellas Pharma Inc.	000/9/22	Prograf capsule 0.5mg Prograf capsule 1mg Prograf granule 0.2mg Prograf granule 1mg	Prograf® Capsules 0.5mg Prograf® Capsules 1mg Prograf® Granules 0.2mg Prograf® Granules 1mg	Tacrolimus Hydrate		
1998	1999/3/4	(11yaku A) No. 121		Relaxin	Scleroderma	Suntory Ltd.	—	—	—	—	—	—	Designation revoked (2002/3/15)	2002/3/15
1998	1999/3/4	(11yaku A) No. 120		Phenobarbital sodium	Neonatal convulsions	Wyeth Lederle Japan	—	—	—	—	—	—	Designation revoked (2003/12/12)	2003/12/12
1998	1999/3/4 2002/5/28 *10	(14yaku) No. 119 *10	3	Recombinant human growth hormone receptor binding protein	Acromegaly	1999-3-4 Sensus Drug Development Corp. 2002-3-28 Pharmacia, currently Pfizer Japan Inc.	Improvement of symptoms from IGF-1 somatomedin C oversecretion in the following diseases: - acromegaly limited to cases where surgical treatment or multiple drug treatment is insufficient or difficult to adminster.	Pfizer Japan Inc.	2007/1/26	Somavert for s. c. injection 10mg Somavert for s. c. injection 15mg Somavert for s. c. injection 20mg	SOMAVERT® for s. c. Injection 10mg SOMAVERT® for s. c. Injection 15mg SOMAVERT® for s. c. Injection 20mg	Pegvisomant (Genetical Recombination)	Designation revoked (2002/5/28) *10	
1998	1999/3/4	(11yaku A) No. 118	4	Spherical carbon adsorbent	Improvement of fistula in Crohn's disease	Kureha Corp.	—	—	—	—	—	—		
1998	1999/1/21	(11yaku A) No. 117	5	Human-type anti-CD33 monoclonal antibody conjugated with Calicheamicin	Relapse or refractory acute myeloid leukemia	Wyeth Lederle Japan	Relapse or refractory CD33-positive acute myeloid leukemia	Wyeth, currently Pfizer Japan Inc.	2005/7/25	Mylotarg injection 5mg	MYLOTARG® Injection 5mg	Gemtuzumab Ozogamicin (Genetical Recombination)		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1998	1998/11/27	(10yaku A) No. 116	4	Tamibarotene	Acute promyelocytic leukemia	Toko Pharmaceutical Industrial Co., Ltd	Relapse or refractory acute promyelocytic leukemia	Toko Pharmaceutical Industrial Co., Ltd	2005/4/11	Amnolake tablet 2mg	Amnolake® tablets	Tamibarotene		
1998	1998/11/27	(10yaku A) No. 115	0	Ivermectin	Strongyloidiasis	Banyu Pharmaceuticals	Intestinal tract strongyloidiasis	MSD Japan	2002/10/8	Stromectol tablet 3mg	STROMECTOL® Tablets 3mg	Ivermectin		
1998	1998/11/27	(10yaku A) No. 114	3	Rituximab	B-cell non-Hodgkin's lymphoma limited to patients with CD20 differentiation antigen on the surface of tumor cells	ZENOAQ	CD20 positive B-cell non-Hodgkin's lymphoma	ZENOAQ	2001/6/20 2003/9/19 *9	Rituxan injection 10mg/mL(100mg/10mL) Rituxan injection 10mg/1mL(500mg/50mL)	RITUXAN® Injection	Rituximab (Genetical Recombination)		
1998	1998/9/4	(10yaku A) No. 113	7	5-methyl-1-phenyl-2-(1H)- pyridine	Pneumonitis (except acute and other acute exacerbation of pneuonitis)	Shionogi & Co., Ltd.	Idiopathic pulmonary fibrinosis	Shionogi & Co., Ltd	2008/10/16	Pirespa tablet 200mg	Pirespa®	Pirfenidone		
1997	1998/3/20	(10yaku A) No. 112	4	Monteplase recombinant	Thrombolysis of acute pulmonary embolism in pulmonary artery	Eiszi Co., Ltd.	Thrombolysis of acute pulmonary embolism in pulmonary artery in patients with associated unstable haemodynamics	Eiszi Co., Ltd.	2005/7/25	Cleactor for intravenous injection 400,000 Cleactor for intravenous injection 800,000 Cleactor for intravenous injection 1,600,000	Cleactor® for Intravenous Injection 400,000 Cleactor® for Intravenous Injection 800,000 Cleactor® for Intravenous Injection 1,600,000	Monteplase (Genetical Recombination)		
1997	1998/3/20	(10yaku A) No. 111	4	Doranidazole	To increase efficacy of intraoperative radiation therapy for pancreatic cancer	Pola Kasei K.K.	—	—	—	—	—	—		
1997	1997/6/16	(9yaku A) No. 110	5	1-(2-naphthalene-2-ylethyl)-4-(3-trifluoromethylphenyl)-1,2,3,6-tetrahydropyridine hydrochloride	Amyotrophic lateral sclerosis (ALS)	Sanofi Japan	—	—	—	—	—	—	Designation revoked (2004/2/6)	2004/2/6
1997	1997/6/16 2002/1/24 *8	(14yaku A) No. 109 *8	3	Verteporfin	Age-related macular degeneration with subfoveal choroidal neovascularization	Ciba Vision Corporation Novartis Pharma	Age-related macular degeneration with subfoveal choroidal neovascularization	Novartis Pharma K.K	2003/10/16	Visudyne for intravenous injection 15mg	Visudynes	Verteporfin	Designation revoked (2002/1/24) *8	
1996	1997/3/27	(9yaku A) No. 108		Fluconazole	Suppression of recurrent cryptococcal meningitis or treatment for oral thrush in patients with AIDS	Pfizer Japan Inc.	—	—	—	—	—	—		
1996	1997/3/27	(9yaku A) No. 107	1	Clotrimazole	Oral candidiasis in patients with AIDS	Bayer Holding Ltd.	Mild or moderate oral candidiasis in patients with HIV infection	Bayer Holding Ltd.	1999/6/11	Empecid troche 10mg	Empecid® Troche	Clotrimazole		
1996	1997/3/27	(9yaku A) No. 106	2	8-carbamoyloctyl α-D-galactopyranosyl (1-4) β-D-galactopyranosyl (1-4)- β-D-glucopyranoside siloxypropyldiatomite	Removal of verotoxin (Shiga-like toxin - SLT) produced by enterohemorrhagic Escherichia coli from the intestinal tract	Takeda Pharmaceutical Co., Ltd.	—	—	—	—	—	—	Designation revoked (2002/3/15)	2002/3/15

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1996	1996/12/20	(8yaku A) No. 105	2	Nelfinavir mesylate	AIDS and symptomatic and asymptomatic HIV Infection	Japan Tobacco, Inc.	HIV-1 Infection	Japan Tobacco, Inc.	1998/3/6 2004/1/19 *7	Viracept tablet 250mg	Viracept® Tab. 250mg	Nelfinavir Mesilate		
1996	1996/12/20	(8yaku A) No. 104	2	Nevirapine	AIDS and symptomatic and asymptomatic HIV Infection	Nippon Boehringer Ingelheim Co., Ltd	HIV-1 Infection	Nippon Boehringer Ingelheim Co., Ltd	1998/11/27	Viramune tablet 200	Viramune® Tablets 200	Nevirapine		
1996	1996/9/25	(8yaku A) No. 103	2	Saquinavir mesylate	AIDS and symptomatic and asymptomatic HIV Infection; in combination with reverse transcriptase inhibitor	Nippon Roche Ltd.	HIV-1 Infection	Chugai Pharmaceutical Co., Ltd	1997/9/5	Invirase capsule 200mg Invirase tablet 500mg	INVIRASE® Capsule 200mg INVIRASE® Tablet 500mg	Saquinavir Mesilate		
1996	1996/4/1	(8yaku A) No. 102	1	Indinavir sulfate ethanolate	AIDS, symptomatic and asymptomatic HIV infection in patients with CD4 500 or less / mm3 before treatment	Banyu Pharmaceuticals	AIDS, symptomatic and asymptomatic HIV infection in patients with CD4 500 or less / mm3 before treatment	MSD Japan	1997/3/28	Crixivan capsules 200mg	CRIXIVAN® Capsules 200mg	ndinavir Sulfate Ethanolate		
1996	1996/4/1	(8yaku A) No. 101		Rifampicin	Hansen's disease	Hishiyama Pharmaceutical	Hansen's disease	Nipro Pharma Co.	1996/8/9	Rifampicin capsule 150 mg "NP"	—	Rifampicin	This formulation is not currently being supplied.	
1996	1996/4/1	(8yaku A) No. 100		Rifampicin	Hansen's disease	Nihon Ciba-Geigy K.K.	Hansen's disease	Sandoz	1996/8/9	Rimactane capsule 150mg	—	Rifampicin	This formulation is not currently being supplied.	
1996	1996/4/1	(8yaku A) No. 99		Rifampicin	Hansen's disease	Daiichi Pharma	Hansen's disease	Daiichi Sankyo Pharm Co.	1996/8/9	Rifadin capsule 150mg	RIFADIN® CAPSULES 150mg	Rifampicin		
1996	1996/4/1	(8yaku A) No. 98		Rifampicin	Hansen's disease	Kanebo	Hansen's disease	Sandoz	1996/8/9	Rifampicin capsule 150mg [SANDOZ]	Rifampicin Capsules 150mg [SANDOZ]	Rifampicin		
1996	1996/4/1	(8yaku A) No. 97		Rifampicin	Hansen's disease	Kaken Pharmaceutical Co., Ltd"	Hansen's disease	Kaken Pharmaceutical Co., Ltd	1996/8/9	Aptecin capsule 150mg	APTECIN® Capsules 150mg	Rifampicin		
1996	1996/4/1	(8yaku A) No. 96	2	Ritonavir	AIDS; symptomatic and asymptomatic HIV Infection	Dainabot Co., Ltd	Combination therapy with nucleotide reverse transcriptase inhibitor in following diseases - AIDS - symptomatic and asymptomatic HIV infection in patients with CD4 500 or less / mm3 before treatment	Abbott Japan Co., Ltd	1997/11/20	Norvir PO liquid 8% Norvir tablet 100mg	Norvir®	Ritonavir		
1996	1996/4/1 1999/4/6 *6	(8yaku A) No. 95 *6	1	Lamivudine	Combination therapy with zidovudine in patients with AIDS and patients with symptomatic or asymptomatic HIV infection with CD4 count 500 or lower / mm3 before treatment	Nihon Welcome 1996-4-1 GlaxoSmithKline K.K. 1999-4-6	Use in combination therapy with zidovudine for HIV infection	ViiV Healthcare	1997/2/14 1999/6/11 *6	Epivir tablet 150 Epivir tablet 300	Epivir® Tablets	Lamivudine	Designation revoked (1999/4/6) *6	

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1996	1996/4/1	(8yaku A) No. 94		Fibronectin (human plasma)	Prolonged corneal epithelium impairment when existing treatment for one week or longer shows no effect, and slit-lamp microscope examination clearly shows total loss of the corneal epithelial layer and a curling of the edge of the defect area.	Nihon Chemical Research, Ltd.	—	—	—	—	—	—	Designation revoked (2004/7/7)	2004/7/7
1996	1996/4/1	(8yaku A) No. 93	7, 1 *5	Human thyrotropin alpha recombinant	Detection of residual thyroid after thyroidectomy due to thyroid cancer; support of in-vivo diagnostics for detection of metastatic sites of metastatic thyroid cancer; pretreatment for radioactive iodine treatment to enhance uptake of iodine *5	Sato Pharmaceutical Co., Ltd.	Support of diagnostics with radioactive iodine scintigraphy with or without serum thyroglobulin Tg test in patients treated with total or semi-total thyroidectomy due to differentiated thyroid cancer; Support of ablation in patients by radioactive iodine treatment on the residual thyroid after treatment with total or semi-total thyroidectomy due to differentiated but not metastatic thyroid cancer. *5	Sato Pharmaceutical Co., Ltd.	2008/10/16 2012/5/25 *5	Thyrogen for intramuscular injection 400mg	THYROGEN®	Thyrotropin Human Alfa (Genetical Recombination)		
1996	1996/4/1	(8yaku A) No. 92	2	Cytarabine	Relapse or refractory acute leukemia including blast crisis of chronic myelogenous leukemia	Nippon Shinyaku Co., Ltd	The following treatments in acute leukemia (acute myeloid leukemia and acute lymphoblastic leukemia) - Remission induction salvage treatment for relapse or refractory case - Maintenance therapy Limit to combination therapy with other anti-cancer drugs for the patients with acute lymphoblastic leukemia.	Nippon Shinyaku Co., Ltd	2000/1/18	Cylocide N injection 400mg Cylocide N injection 1g	Cylocide N Injection 400mg Cylocide N Injection 1g	Cytarabine		
1996	1996/4/1	(8yaku A) No. 91	4	Chimeric anti-human TNF alpha monoclonal antibody	Crohn's disease	Tanabe Pharma	Treatment of Crohn's disease in patients with any of the following symptoms, limited to cases where other treatments are ineffective - Moderate to severe active stage -Outer fistulae	Mitsubishi Tanabe Pharma Co.	2002/1/17 2011/8/17 New dosage *23	Remicade for I.V. infusion 100mg	REMICADE® for I.V. Infusion100	Infliximab (Genetical Recombination)		
1996	1996/4/1	(8yaku A) No. 90	4	Two hundred twenty-six human monoclonal antibody anti-TA	Glioma	Japan Pharmaceutical Development Co., Ltd	—	—	—	—	—	—	Designation revoked (2005/6/20)	2005/6/20
1996	1996/4/1	(8yaku A) No. 89		Coagulatkion factor IX recombinant	Prevention or treatment of bleeding or complications in patients with haemophilia B	Genetics Institute	Inhibition of bleeding in patients with haemophilia B (congenital blood coagulation factor IX deficiency)	Pfizer Japan Inc.	2009/10/16	BeneFIX intravenous 500 BeneFIX intravenous 1000 BeneFIX intravenous 2000	BeneFIX® Intravenous 500 BeneFIX® Intravenous 1000 BeneFIX® Intravenous 2000	Nonacog Alfa (Genetical Recombination)		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1996	1996/4/1	(8yaku A) No. 88		Clofazimine	Hansen's disease	Nihon Ciba-Geigy K.K.	Hansen's disease (multibacillary leprosy, lepromatous erythemanodosum)	Novartis Pharma K.K.	1996/11/12	Lampren capsule 50mg	Lampren® Capsules 50mg	Clofazimine		
1996	1996/4/1	(8yaku A) No. 87	3	Dried sulfonated human immunoglobulin	Severe cases Guillain-Barre syndrome in acute exacerbation periods with difficulty walking	Kaketsuken, T Pharma Ltd.	Severe cases Guillain-Barre syndrome in acute exacerbation periods with difficulty walking	Kaketsuken, T Pharma Ltd.	2000/12/12	Kenketsu Venilon-I for I.V. injection 500mg Kenketsu Venilon-I for I.V. injection 1000mg Kenketsu Venilon-I for I.V. injection 2500mg Kenketsu Venilon-I for I.V. injection 5000mg	Kenketsu Venilon®-I Kenketsu Venilon®-I Kenketsu Venilon®-I Kenketsu Venilon®-I	Freeze-dried Sulfonated Normal Human Immunoglobulin		
1996	1996/4/1	(8yaku A) No. 86		Ganciclovir	Maintenance therapy for cytomegalovirus retinitis	Tanabe Pharma	Maintenance therapy for cytomegalovirus retinitis in patients stabilized with initial treatment by ganciclovir injection, etc. in the following diseases: AIDS; Prevention of onset of cytomegalovirus retinitis in patients with advanced HIV-1 infection with CD4 count less than 100 / mm3	Mitsubishi Tanabe Pharma Co.	1997/7/25	Denosine capsule 250	—	—	Designation revoked (2009/9/11) This is currently notsupplied. Designation number (16yaku)No.169 is supplied in replacement.	2009/9/11
1996	1996/4/1	(8yaku A) No. 85		Ofloxacin	Hansen's disease	Daiichi Pharma	Hansen's disease	Daiichi Sankyo Pharm Co.	1996/8/9	Tarivid tablet 100mg	TARIVID® TABLETS 100mg	Ofloxacin		
1996	1996/4/1	(8yaku A) No. 84	2	Morphine hydrochloride	Pain relief for various types of cancer with severe pain, when oral administration, subcutaneous injection or intravenous injection of narcotic is insufficient	Shionogi & Co., Ltd.	—	—	—	—	—	—	Designation revoked (2001/8/24)	2001/8/24
1996	1996/4/1	(8yaku A) No. 83	3	Sapropterin hydrochloride	Improvement of ataxia in Machado-Joseph disease	Suntory Ltd.	—	—	—	—	—	—	Designation revoked (2003/12/12)	2003/12/12
1996	1996/4/1	(8yaku A) No. 82	4	Gemcitabine hydrochloride	Pancreatic carcinoma	Eli Lilly Japan K.K	Pancreatic carcinoma	Eli Lilly Japan K.K	2001/4/4	Gemzar for injection 200mg Gemzar for injection 1g	Gemzar® Injection	Gemcitabine Hydrochloride		
1996	1996/4/1	(8yaku A) No. 81	1	Imiglucerase	Improvement of symptoms of anaemia, thrombocytopenia, hepatosplenomegaly, bone symptoms, etc. in patients with Gaucher's disease	Genzyme Japan K.K.	Improvement of symptoms of anaemia, thrombocytopenia, hepatosplenomegaly, bone symptoms, etc. in patients with Gaucher's disease	Genzyme Japan K.K.	1998/3/6	Cerezyme injection 200U Cerezyme for intravenous injection 400U	CEREZYME® injection	Imiglucerase (Genetical Recombination)		
1995	1995/4/1	(7yaku A) No. 80	3	Mesna	Prophylaxis for dysfunction of urinary system (hemorrhagic cystitis, dysuria, etc.) resulting fromy cyclophosphamide pre-treatment for bone marrow transplantation	Shionogi & Co., Ltd.	Prophylaxis for dysfunction of urinary system (hemorrhagic cystitis, dysuria, etc.) resulting fromy cyclophosphamide pre-treatment for haematopoietic stem cell transplantation	Shionogi & Co., Ltd.	2003/10/9	Uromitexan for injection 100mg Uromitexan for injection 400mg	Uromitexan®	Mesna		
1995	1995/4/1	(7yaku A) No. 79	2	Foscarnet sodium hydrate	Cytomegalovirus retinitis in AIDS patients	Astra Japan	Cytomegalovirus retinitis in AIDS patients	Nobelpharma Co.	1997/3/28	Foscavir for IV injection 24mg/mL	Foscavir® Infusion Solution 24mg/mL	Foscarnet Sodium Hydrate		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1995	1995/4/1	(7yaku A) No. 78	4	Somatropin recombinant	Maintenance and increase of fat-free mass in patients with AIDS	Serono Japan	Increase and maintenance of fat-free mass in patients with weight loss due to AIDS or symptomatic HIV-infection with CD4 count less than 200/mm3	Merck Serono Co., Ltd.	1999/3/12	Serostim injection 5mg	—	—	Designation revoked (2012/6/13)	2012/6/13
1995	1995/4/1	(7yaku A) No. 77	3	Stavudine	AIDS, symptomatic and asymptomatic HIV infection	Bristol-Myers Squibb	AIDS or symptomatic and asymptomatic HIV infection with CD4 count less than 500/mm3 not to be used as first-line monotherapy	Bristol-Myers	1997/7/25	Zerit capsule 15 Zerit capsule 20	ZERIT® CAPSULES 15 ZERIT® CAPSULES 20	Sanilvudine		
1995	1995/4/1	(7yaku A) No. 76	3	Cyclophosphamide	Pretreatment for bone marrow transplantation for acute leukemia, chronic myelogenous leukemia, myelodysplastic syndrome, malignant lymphoma, multiple myeloma, aplastic anaemia, etc.	Shionogi & Co., Ltd.	Pretreatment for haematopoietic stem cell transplantation for the following diseases: acute leukemia, chronic myelogenous leukemia, myelodysplastic syndrome, aplastic anaemia, malignant lymphoma, hereditary diseases (immunodeficiency, congenital metabolic disorder, congenital haematological disorders: Fanconi anaemia, Wiskott-Aldrich syndrome, Hunter's syndrome, etc.)	Shionogi & Co., Ltd	2003/10/9	Endoxan for injection 100mg Endoxan for injection 500mg	Endoxan	Cyclophosphamide Hydrate		
1995	1995/4/1	(7yaku A) No. 75	3	(R)-N-tertiary-butyl-3-[(2S,3S)-2-hydroxy-3-N-[(R)-2-N-(isoquinolin-5-yloxyacetyl)amino-3-methyl-thio-propanoyl]amino-4-phenylbutanoyl]-1,3-thiazolidine-4-carboxamide	Patients with HIV infection who are asymptomatic, symptomatic or have AIDS when CD4 lymphocyte count prior to treatment was less than 400 per cubic millimeter.	Japan Energy Co.	—	—	—	—	—	—	Designation revoked (2002/6/17)	2002/6/17
1995	1995/4/1	(7yaku A) No. 74	1	CD11a mouse anti-human monoclonal antibody	Suppress rejection or graft-versus-host disease (GVHD) in HLA non-compliant bone marrow transplantation for severe combined immunodeficiency disease patients	Pasteur Mérieux Serum and Vaccination Co.	—	—	—	—	—	—	Designation revoked (2000/5/10)	2000/5/10
1995	1995/4/1	(7yaku A) No. 73	4	Cladribine	Hairy cell leukemia	Janssen Kyowa	Hairy cell leukemia	Janssen Pharmaceutical K.K.	2002/1/17	Leustatin injection 8mg	LEUSTATIN® Injection 8mg	Cladribine	Designation revoked (2005/8/9)	
1995	1995/4/1	(7yaku A) No. 72	6	Etidronate disodium	Ossification of the posterior longitudinal ligament	Sumitomo Pharmaceuticals	—	—	—	—	—	—	Designation revoked (2005/8/9)	2005/8/9
1995	1995/4/1	(7yaku A) No. 71	3	Interferon-beta	Senile disciform macular degeneration with fovea centralis retinae neovascularity	Toray Industries, Inc.	—	—	—	—	—	—	Designation revoked (2010/8/11)	2010/8/11
1995	1995/4/1	(7yaku A) No. 70	6	N-[(1S,2R)-3-(4-amino-N-isobutylbenzenesulfonamido)-1-benzyl-2-hydroxypropyl]carbamate(3S)-tetrahydro-3-furylester-mesylate	AIDS; symptomatic and asymptomatic HIV infection	Kissei Pharmaceutical Co., Ltd.	HIV-1 infection	Kissei Pharmaceutical Co., Ltd.	1999/9/10	Prozei capsule	—	—	Thi is not currently supplied.	

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1994	1994/7/1	(6yaku A) No. 69	4	Fludarabine phosphate	Chronic lymphocytic leukemia with anaemia or with thrombocytopenia	Nihon Schering K.K.	Chronic lymphocytic leukemia with anaemia or with thrombocytopenia	Bayer Holding Ltd.	1999/9/29	Fludara for intravenous injection 50mg	Fludara® 50mg	Fludarabine Phosphate		
1994	1994/7/1	(6yaku A) No. 68	1	Mycophenolate mofetil	Treatment of refractory rejection reaction after renal transplantation	Nihon Syntex	Treatment of refractory rejection reaction after renal transplantation; with diagnosis of "refractory rejection reaction" and other drugs are ineffective or cannot be administered due to adverse events.	Chugai Pharmaceutical Co., Ltd	1999/9/22	Cellcept capsule 250	CELLCEPT® Capsule 250	Mycophenolate Mofetil		
1994	1994/7/1 1996/4/1 *4	(6yaku A) No. 67	2 Only Toray *4	Beraprost sodium	Primary pulmonary hypertension; hypertension as a complication of collagen diseases.	Toray Industries, Inc 1994-7-1 Kaken Pharmaceutical Co., Ltd 1996-4-1 *4	Primary pulmonary hypertension	Toray Industries, Inc. Kaken Pharmaceutical Co., Ltd	1999/9/22	Dorner tablet 20μg Procylin tablet 20	DORNER® Tablets 20μg PROCYLIN® Tablets 20	Beraprost Sodium		
1994	1994/7/1	(6yaku A) No. 66	3	Buropirimin	Bladder intraepithelial tumor	Upjohn Pharmaceuticals, Ltd Yakult	—	—	—	—	—	—	Designation revoked (2004/4/21)	2004/4/21
1994	1994/7/1	(6yaku A) No. 65	1	Protirelin	Improvement of ataxia in spinocerebellar degeneration	Takeda Pharmaceutical Co., Ltd.	—	—	—	—	—	—	Designation revoked (1996/4/1)	1996/4/1
1994	1994/7/1	(6yaku A) No. 64	2	Phenylalanine reduced milk containing low-phenylalanine peptide powder digested with milk-protein digestive enzyme	Phenylketonuria	Snow Brand Milk Products Co., Ltd.	Phenylketonuria	Snow Brand Milk Products Co., Ltd.	1999/5/25	Snow Brand Peptiderofe	—	—	This is not currently supplied.	
1994	1994/7/1	(6yaku A) No. 63	1	Transforming growth factor - beta 2 recombinant	Repair of idiopathic macular hole	Santen Pharmaceutical Co., Ltd.	—	—	—	—	—	—	Designation revoked (1996/9/25)	1996/9/25
1994	1994/7/1	(6yaku A) No. 62	2	Tiopronin	Cystinuria including lithiasis	Santen Pharmaceutical Co., Ltd.	Cystinuria	Mylan Pharmaceuticals	2002/7/5	Thiola tablet 100	Thiola® Tab.100	Tiopronin		
1994	1994/7/1	(6yaku A) No. 61	1	Somatropin recombinant	Short stature in chronic renal failure without epiphyseal line closure	Sumitomo Pharmaceuticals Co., Ltd.	Short stature in chronic renal failure without epiphyseal line closure	Pfizer Japan Inc.	1997/7/2	Genotropin TC Inj. 5.3mg Genotropin TC Inj. 12mg Genotropin GoQuick Inj. 5.3mg Genotropin GoQuick Inj. 12mg Genotropin MiniQuick s.c. inj. 0.6mg Genotropin MiniQuick s.c. inj. 1.0mg Genotropin MiniQuick s.c. inj. 1.4mg	Genotropin® TC Inj. 5.3mg Genotropin® TC Inj. 12mg Genotropin® GoQuick Inj. 5.3mg Genotropin® GoQuick Inj. 12mg Genotropin® MiniQuick s.c. inj. 0.6mg Genotropin® MiniQuick s.c. inj. 1.0mg Genotropin® MiniQuick s.c. inj. 1.4mg	Somatropin (Genetical Recombination)		
1994	1994/7/1	(6yaku A) No. 60	1	Somatropin recombinant	Short stature without the epiphyseal line closure and due to cartilage dystrophy or chronic renal failure	Novo Nordisk Pharma Ltd.	Short stature without the epiphyseal line closure and due to cartilage dystrophy	Novo Nordisk Pharma Ltd.	1997/4/22	Norditropin FlexPro injection 5mg Norditropin FlexPro injection 10mg Norditropin FlexPro injection 15mg Norditropin S injection 10mg	Norditropin® FlexPro® Norditropin® S	Somatropin (Genetical Recombination)		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1994	1994/7/1	(6yaku A) No. 59	1	Anti-CD45 monoclonal antibody	Immune suppression of acute rejection in renal transplantation	Baxter	—	—	—	—	—	—	Designation revoked (1996/4/1)	1996/4/1
1994	1994/7/1	(6yaku A) No. 58	4	Clarithromycin	Disseminated mycobacterial infection in patients with AIDS	Taisho Pharmaceutical Co., Ltd. Dainabot Co., Ltd	Disseminated mycobacterial infection in patients with AIDS	Taisho Pharmaceutical Co., Ltd. Abbott Japan Co., Ltd	1998/9/30	Clarith tab. 200 Clarith tab. 50 for pediatric Clarith dry syrup 10% for pediatric Klaricid tablet 200mg Klaricid tablet 50mg pediatric use Klaricid dry syrup 10% pediatric use	Clarith® tab. 200 Clarith® tab. 50 for pediatric Clarith® dry syrup 10% for pediatric KLARICID TABLETS 200mg KLARICID SYRUP FOR PEDIATRIC USE KLARICID TABLETS 50mg FOR PEDIATRIC USE	Clarithromycin		
1994	1994/7/1	(6yaku A) No. 57	2	Freeze-dried polyethylene glycol-treated human normal Immunoglobulin	Chronic inflammatory demyelinating polyradiculoneuropathy	Nihon Pharmaceutical Co., Ltd	improvement of muscle weakness in patients with chronic inflammatory demyelinating polyradiculoneuropathy including multifocal motor neuropathy	sanofi-aventis K.K.	1999/6/16	kenketu glovenin-I for I.V. injection 500mg kenketu glovenin-I for I.V. injection 2500mg kenketu glovenin-I for I.V. injection 5000mg	kenketu glovenin®— I for I.V. injection 500mg kenketu glovenin®— I for I.V. injection 2500mg kenketu glovenin®— I for I.V. injection 5000mg	Freeze-dried Polyethylene Glycol Treated Human Normal Immunoglobulin		
1994	1994/7/1 2000/12/20 *3	(12yaku) No. 56 *3	3	Freeze-Dried BCG Vaccine	Superficial bladder cancer and carcinoma in situ of the bladder	Rhône-Poulenc Japan Nippon Kayaku Co., Ltd. 2000-12-20	Superficial bladder cancer and carcinoma in situ of the bladder	Nippon Kayaku Co., Ltd.	2002/10/8	Immucyst intravesical 81mg	IMMUCYST®	Bacillus of Calmette and Guerin (BCG)• Connaught strain	Designation revoked (2000/12/20) *3	
1994	1994/7/1	(6yaku A) No. 55	2	Freeze dried human activated blood coagulation factor VII	Inhibition of haemorrhage in patients who have inhibitors and a deficiency of coagulation factor VIII (haemophilia A) or coagulation factor IX (haemophilia B)	Kaketsuken	—	—	—	—	—	—	Designation revoked (2004/4/21)	2004/4/21
1994	1994/7/1	(6yaku A) No. 54	1	Activated human coagulation factor VII recombinant	Inhibition of haemorrhage in patients who have inhibitors and a deficiency of coagulation factor VIII (haemophilia A) or coagulation factor IX (haemophilia B)	Novo Nordisk Pharma Ltd.	Inhibition of haemorrhage in patients with congenital or acquired haemophilia who have inhibitors to coagulation factor VIII or IX.	Novo Nordisk Pharma Ltd.	2000/3/10	Novoseven HI for intravenous injection 1mg Novoseven HI for intravenous injection 2mg Novoseven HI for intravenous injection 5mg	NovoSeven® HI	Eptacog Alfa (Activated) (Genetical Recombination)		
1994	1994/7/1	(6yaku A) No. 53	1	Octafluoropropane	Support repair of idiopathic macular hole	Santen Pharmaceutical	—	—	—	—	—	—	Designation revoked (1996/9/25)	1996/9/25
1994	1994/7/1	(6yaku A) No. 52	3	Mefloquine hydrochloride	Treatment of malaria	Nippon Roche Ltd.	—	—	—	—	—	—	Designation revoked (2003/1/31)	2003/1/31
1994	1994/7/1	(6yaku A) No. 51	3	Mefloquine hydrochloride	Malaria	SSP Co., Ltd. Dojin Iyaku-Kako Co., Ltd	Malaria	Hisamitsu Pharmaceutical Co., Inc.	2001/4/4	Mephaquin HISAMITSU tablet 275	MEPHAQUIN HISAMITSU TABLETS 275	Mefloquine Hydrochloride		
1994	1994/7/1	(6yaku A) No. 50	4	Epoprostenol sodium	Primary pulmonary hypertension	Nihon Welcome	Primary pulmonary hypertension	GlaxoSmithKline K.K.	1999/1/25	Flolan for intravenous injection 0.5mg Flolan for intravenous injection 1.5mg	Flolan® for injection 0.5mg Flolan® for injection 1.5mg	Epoprostenol Sodium		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1994	1994/7/1	(6yaku A) No. 49	4	Ursodesoxycholic acid	Primary biliary cirrhosis	Tokyo Tanabe Pharmaceutical Co.	Improvement of liver function in patients with primary biliary cirrhosis	Mitsubishi Tanabe Pharma Co.	1999/6/16	Urso tablet 50mg Urso tablet 100mg	URSO® tablets 50mg URSO® tablets 100mg	Ursodeoxycholic Acid		
1994	1994/7/1	(6yaku A) No. 48	4	Rabbit derived anti-human thymocyte immunoglobulin	Graft versus host disease (GVHD) with bone marrow transplantation	Rhône-Poulenc Japan	Acute graft versus host disease (GVHD) after haematopoietic stem cell transplantation	Genzyme Japan K.K.	2008/7/16	Thymoglobulin for infusion 25mg	Thymoglobuline®	Anti-human Thymocyte Immunoglobulin, Rabbit		
1994	1994/7/1	(6yaku A) No. 47	4	Interferon-beta 1b recombinant	Multiple sclerosis	Nihon Schering K.K.	Inhibition of progression or preventing the recurrence of multiple sclerosis	Bayer Holding Ltd.	2000/9/22	Betaferon subcutaneous injection 9,600,000IU	Betaferon®sc inj. 960	Interferon Beta-1b (Genetical Recombination)		
1994	1994/7/1	(6yaku A) No. 46	3	Interferon-beta	Extension of survival period in patients with subacute sclerosing panencephalitis, used in combination with inosine pranobex	Mochida Pharmaceutical Co., Ltd	Inhibition of progression of clincal symptoms in patients with subacute sclerosing panencephalitis, used in combination with inosine pranobex	Mochida Pharmaceutical Co., Ltd	1999/3/12	IFN β MOCHIDA 1,000,000 IU IFN β MOCHIDA 3,000,000 IU IFN β MOCHIDA 5,000,000 IU	IFN β MOCHIDA 1,000,000 unIts for inj. IFN β MOCHIDA 3,000,000 unIts for inj. IFN β MOCHIDA 5,000,000 unIts for inj.	Interferon Beta	Designation revoked (2009/5/11)	2009/5/11
1994	1994/7/1	(6yaku A) No. 45		Interferon alpha	Extension of survival period in patients with subacute sclerosing panencephalitis, used in combination with inosine pranobex	Mochida Pharmaceutical Co., Ltd	—	—	—	—	—	—	Designation revoked (2001/8/24)	2001/8/24
1994	1994/7/1	(6yaku A) No. 44	3	Interferon-alpha	Extension of survival period in patients with subacute sclerosing panencephalitis, used in combination with inosine pranobex	Sumitomo Pharmaceuticals	Inhibition of progression of clincal symptoms in patients with subacute sclerosing panencephalitis, used in combination with inosine pranobex	Dainippon Sumitomo Pharma Co., Ltd.	1999/3/12	Sumiferon injection vial 3,000,000 IU	Sumiferon®	Interferon Alfa (NAMALWA)		
1994	1994/7/1	(6yaku A) No. 43	2	Indium 111 (111In)-pentetreotide	Scintigraphic diagnosis of hormone-producing gastrointestinal tract tumors	Marinclott Medical (currently Covidien Japan)	—	—	—	—	—	—		
1994	1994/7/1	(6yaku A) No. 42	1	Formulation of L-isoleucine, L-valine and L-leucine	To maintain muscle strength in amyotrophic lateral sclerosis (ALS) patients with movement disorders in two or fewer body parts	Ajinomoto Co. Inc.	—	—	—	—	—	—	Designation revoked (1996/4/01)	1996/4/1
1994	1994/7/1	(6yaku A) No. 41	3	Ethyl icosapentate	Behcet's disease	Mochida Pharmaceutical Co., Ltd	—	—	—	—	—	—	Designation revoked (2001/8/24)	2001/8/24
1993	1993/11/15	(5yaku B) No. 40		Regavirumab	Cytomegalovirus infection in immunocompromised patients: malignant tumors, AIDS, aplastic anemia, organ transplant and newborns	T Ltd.	—	—	—	—	—	—	Designation revoked (1999/5/27)	1999/5/27
1993	1993/11/15	(5yaku A) No. 39	4	Riluzole	Amyotrophic lateral sclerosis (ALS)	Rhône-Poulenc Japan	Treatment of amyotropic lateral sclerosis ALS Inhibition of progression of amyotropic lateral sclerosis	sanofi-aventis K.K.	1998/12/25	Rilutek tablet 50	RILUTEK®50mg Tablets	Riluzole		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1993	1993/11/15	(5yaku B) No. 38		Lyophilized biological preparation containing cells of Streptococcus pyogenes Su strain heated with benzylpenicillin potassium	Lymphangioma	Chugai Pharmaceutical Co., Ltd	Lymphangioma	Chugai Pharmaceutical Co., Ltd	1995/1/20	Picibanil for injection 0.2KE Picibanil for injection 0.5KE Picibanil for injection 1KE Picibanil for injection 5KE	PICIBANIL® Injection 0.2KE PICIBANIL® Injection 0.5KE PICIBANIL® Injection 1KE PICIBANIL® Injection 5KE	Lyophilized powder of Streptococcus pyogenes (A group, type 3) Su strain cells treated with penicillin		
1993	1993/11/15	(5yaku A) No. 37	2	Melphalan	Multiple myeloma, bone marrow transplantation pretreatment, retinoblastoma	Nihon Welcome	Pretreatment of haematopoietic stem cell transplantation in the following diseases: leukemia, malignant lymphoma, multiple myeloma, childhood solid tumor	GlaxoSmithKline K.K.	2001/4/4	Alkeran for intravenous injection 50mg	Alkeran® for injection	Melphalan		
1993	1993/11/15	(5yaku A) No. 36	4	L-1-methyl-4,5-dihydroorotyl-L-histidyl-L-prolineamide	Spinocerebellar ataxia	Tanabe Pharma	Improvement of ataxia in patients with spinocerebellar ataxia	Mitsubishi Tanabe Pharma Co.	2000/7/3	Ceredist tblet 5mg	CEREDIST® Tablets 5mg	Taltirelin Hydrate		
1993	1993/11/15	(5yaku A) No. 35	2 *2	Mesalazine	Crohn's disease	Nissin Seifun	Crohn's disease	Kyorin Pharmaceutical Co., Ltd	1996/4/16	Pentasa tablet 250mg Pentasa tablet 500mg	PENTASA® Tablets 250mg PENTASA® Tablets 500mg	Mesalazine		
1993	1993/11/15	(5yaku A) No. 34	2	Mesalazine	Ulcerative colitis	Nissin Seifun	Ulcerative colitis except severe cases	Kyorin Pharmaceutical Co., Ltd	1996/4/16	Pentasa tablet 250mg Pentasa tablet 500mg	PENTASA® Tablets 250mg PENTASA® Tablets 500mg	Mesalazine		
1993	1993/11/15	(5yaku B) No. 33		Mecasermin recombinant	Growth hormone resistant dwarfism (growth hormone resistant isolated growth hormone deficiency Type 1A); Laron dwarfism	Fujisawa Yakuhin	Improvement of growth disorders in the following diseases: growth hormone resistant isolated growth hormone deficiency Type 1A or Laron dwarfism	Astellas Pharma Inc.	1994/10/5	Somazon 10mg for Injection	Somazon® 10mg for Injection	Mecasermin (Genetical Recombination)		
1993	1993/11/15	(5yaku B) No. 32		Mecasermin recombinant	Insulin receptor defective Type A and B insulin receptor diseases, lipoatrophic diabetes mellitus, leprechaunism and Rabson-Mendenhall syndrome	Fujisawa Yakuhin	Improvement of hyperglycaemia, hyperinsulinaemia, acanthosis nigricans or hirsutism in patients with the following diseases: Type A and B insulin receptor diseases, lipoatrophic diabetes mellitus, leprechaunism and Rabson-Mendenhall syndrome	Astellas Pharma Inc	1994/10/5	Somazon 10mg for Injection	Somazon® 10mg for Injection	Mecasermin (Genetical Recombination)		
1993	1993/11/15	(5yaku B) No. 31		Pentostatin	Amelioration of subjective and objective symptoms in the following diseases: adult T-cell leukemia, lymphoma and hairy cell leukemia.	Kaketsuken Yamasa Corporation	Remission of subjective and objective symptoms in the following diseases: adult T-cell leukemia, lymphoma and hairy cell leukemia.	Kaketsuken	1994/4/1	Coforin for intravenous injection 7.5mg	Coforin	Pentostatin		
1993	1993/11/15	(5yaku A) No. 30	3	Piracetam	Progressive myoclonus epilepsy including dyslipidaemia, Unverricht-Lundborg disease syndrome, Ramsay-Hunt syndrome, Lafora's disease, mitochondrial encephalomyopathy, and Neuronal Ceroid-Lipofuscinosi Myoclonus after cerebral anoxia (Lance-Adams syndrome), essential myoclonus, myoclonus caused by Huntington's disease or Alzheimer's disease, drug-induced myoclonus, and any other iriopathic myoclonus	Taiho Fine Chemical Taiho Pharmaceutical Co., Ltd UCB Japan Co. Ltd	Combination therapy with anti-convulsant drugs for cortical myoclonus	Taiho Pharmaceutical Co., Ltd. UCB Japan Co. Ltd	1999/9/22	Myocalm oral solution 33.3%	Myocalm® solution 33.3%	Piracetam		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1993	1993/11/15	(5yaku A) No. 29	1	Tretinoin	Acute promyelocytic leukemia	Nippon Roche Ltd.	Acute promyelocytic leukemia	Chugai Pharmaceutical Co., Ltd	1995/1/20	Vesanoid capsule 10mg	VESANOID® Capsule 10mg	Tretinoin		
1993	1993/11/15	(5yaku B) No. 28		Dantrolene sodium	Malignant syndrome	Yamanouchi Pharmaceutical	Malignant syndrome	Astellas Pharma Inc.	1994/7/1	Dantrium capsule 25mg Dantrium capsule 50mg Dantrium 20mg for Intravenous Injection	Dantrium® Capsules 25mg Dantrium® Capsules 50mg Dantrium® 20mg for Intravenous Injection	Dantrolene Sodium Hydrate		
1993	1993/11/15	(5yaku A) No. 27	3	Tacrolimus	Refractory uveitis with Behcet's disease	Fujisawa Yakuhin	—	—	—	—	—	—	Designation revoked (2000/9/20)	2000/9/20
1993	1993/11/15	(5yaku B) No. 26		Tacrolimus	Inhibition of rejection reaction after renal transplantation	Fujisawa Yakuhin	Inhibition of rejection reaction after renal transplantation	Astellas Pharma Inc.	1996/4/16	Prograf capsules 0.5mg Prograf capsules 1mg Prograf capsules 5mg Prograf granules 0.2mg Prograf granules 1mg Prograf injection 2mg Prograf injection 5mg	Prograf® Capsules 0.5mg Prograf® Capsules 1mg Prograf® Capsules 5mg Prograf® Granules 0.2mg Prograf® Granules 1mg Prograf® Injection 2mg Prograf® Injection 5mg	Tacrolimus Hydrate		
1993	1993/11/15	(5yaku B) No. 25		Tacrolimus	Treatment of graft versus host disease (GVHD) post bone marrow transplantation	Fujisawa Pharmaceutical Co., Ltd.	Treatment of graft versus host disease (GVHD) post bone marrow transplantation	Astellas Pharma Inc.	1994/7/1	Prograf capsules 0.5mg Prograf capsules 1mg Prograf capsules 5mg Prograf granules 0.2mg Prograf granules 1mg Prograf injection 2mg Prograf injection 5mg	Prograf® Capsules 0.5mg Prograf® Capsules 1mg Prograf® Capsules 5mg Prograf® Granules 0.2mg Prograf® Granules 1mg Prograf® Injection 2mg Prograf® Injection 5mg	Tacrolimus Hydrate		
1993	1993/11/15	(5yaku A) No. 24	3	Sotalol	Ventricular tachyarrhythmia (ventricular tachycardia and ventricular fibrillation) where there is a risk to life	Bristol-Myers Squibb	Life threatening recurrent arrhythmia in cases where no other drugs are effective, or unusable for ventricular tachycardia or ventricular fibrillation	Bristol-Myers	1998/9/30	Sotacor tablet 40mg Sotacor tablet 80mg	SOTACOR® TABLETS 40mg SOTACOR® TABLETS 80mg	Sotalol Hydrochloride		
1993	1993/11/15	(5yaku A) No. 23	1	Purified pituitary gonadotropin	Male gonadal gonadotropin insufficiency	Serono Japan	—	—	—	—	—	—	Designation revoked (2000/9/20)	2000/9/20
1993	1993/11/15	(5yaku B) No. 22		Cyclosporine	Frequently recurring- or steroid-resistant nephrotic syndrome	Sandoz Co., Ltd	Frequently recurring- or steroid-resistant nephrotic syndrome	Novartis Pharma K.K.	1996/1/31	Sandimmun Oral Solution 10% Sandimmun capsule 25mg Sandimmun capsule 50mg	Sandimmun® Oral Solution 10% Sandimmun® Capsules	Ciclosporin		
1993	1993/11/15	(5yaku B) No. 21		Cyclosporine	Aplastic anaemia or pure red-cell aplasia	Sandoz Co., Ltd	Severe cases of aplastic anaemia or pure red-cell aplasia	Novartis Pharma K.K.	1995/9/29	Sandimmun Oral Solution 10% Sandimmun capsule 25mg Sandimmun capsule 50mg	Sandimmun® Oral Solution 10% Sandimmun® Capsules	Ciclosporin		
1993	1993/11/15	(5yaku A) No. 20	2	Zalcitabine	AIDS or HIV infection	Nippon Roche Ltd.	AIDS or symptomatic and asymptomatic HIV infection in patients with 500 or fewer CD4 / mm3 before treatment	Chugai Pharmaceutical Co., Ltd	1996/4/24	Hibid tablet 0.375mg	—	—	This is currently not supplied.	
1993	1993/11/15	(5yaku B) No. 19		Corticorelin human	Test for function of hypothalamus, pituitary gland and adrenal cortex.	Mitsubishi Kasei Corporation	Test for secretion function of hypothalamus, pituitary gland and adrenal cortex.	Mitsubishi Tanabe Pharma Co.	1994/10/5	hCRH Tanabe for Intravenous Injection 100μg	hCRH "TANABE" Injection 100μg	Corticorelin (human)		
1993	1993/11/15	(5yaku A) No. 18	2	Concentrated plasma-derived blood coagulation factor XIII	Suppressing the progression of neonatal intracranial hemorrhage	Hoechst Japan, Ltd.	—	—	—	—	—	—	Designation revoked (2000/5/10)	2000/5/10

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 4: List of items designated as orphan drugs for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1993	1993/11/15	(5yaku B) No. 17		Freeze-Dried BCG Vaccine	Superficial bladder cancer and carcinoma in situ of the bladder	Japan BCG Laboratory	Superficial bladder cancer and carcinoma in situ of the bladder	Japan BCG Laboratory	1996/7/10	Immunobladder intravesical 40mg Immunobladder intravesical 80mg	Immunobladder® intravesical 40mg Immunobladder® intravesical 80mg	Freeze-dried BCG Vaccine (Japanese Strain)		
1993	1993/11/15 2003/11/5 *1	(5yaku A) No. 16, (15yaku) No. 16 *1	5	Freeze-Dried Concentrated human activated protein C	Improvement of the following diseases caused by congenital protein C deficiency; superficial venous thrombosis, deep venous thrombosis, pulmonary thromboembolism and purpura fulminans.	Kaketsuken 1993-11-15 Teijin Ltd., currently T Pharma Ltd. 2003-11-05 *1	The following diseases caused by congenital protein C deficiency: 1. Deep venous thrombosis, acute pulmonary thromboembolism 2. Purpura fulminans. 2006-10-20	Kaketsuken	2000/9/22 Deep venous thrombosis, acute pulmonary thrombo-embolism 2006/10/20 Purpura fulminans	Anact C for injection 2,500 units	Anact® C	Activated protein C	Teijin Ltd. only Designation revoked (2003/11/5) *1	
1993	1993/11/15	(5yaku B) No. 15		Vancomycin hydrochloride	Methicillin-cephem-resistant Staphylococcus aureus enteritis	Shionogi & Co., Ltd.	Methicillin-cephem-resistant Staphylococcus aureus enteritis	Shionogi & Co., Ltd.	1994/10/5	Vancomycin Hydrochloide powder 0.5g	Vancomycin	Vancomycin Hydrochloride		
1993	1993/11/15	(5yaku A) No. 14	3	Halofantrine hydrochloride	Malaria	SmithKline Beecham Pharma-ceutical Co., Ltd.	—	—	—	—	—	—	Designation revoked (1999/5/27)	1999/5/27
1993	1993/11/15	(5yaku B) No. 13		Trientine hydrochloride	D-penicillamine-intolerance in Wilson's disease	Tsumura & Co.	Wilson's disease in case of D-penicillamine-intolerance	Tsumura & Co.	1994/7/1	Metalite 250 capsule	METALITE® 250 CAPSULES	Trientine Hydrochloride		
1993	1993/11/15	(5yaku A) No. 12	2	Botulinum toxin type A	Local dystonia (blepharospasm and torticollis) and facial myokymia	Allergan Japan	Blepharospasm, hemifacial spasm, cervical dystonia	GlaxoSmithCline K.K.	1996/10/9 Blepharo-spasm 2000/1/18 Hemifacial spasm 2001/6/20 Spasmodic torticollis	Botox for injection 50 units Botox for injection 100 units	BOTOX® for injection	Botulinum Toxin Type A		
1993	1993/11/15	(5yaku B) No. 11		Horse derived anti-human thymocyte immunoglobulin	Aplastic anaemia	Rhône-Poulenc Japan	Severe to moderate aplastic anaemia	Genzyme Japan K.K.	1995/9/29	Lymphoglobulin injectable solution 100mg	—	—	This formulation is no longer being supplied. Designation number "(5yaku)No. 8" is being supplied instead.	
1993	1993/11/15	(5yaku A) No. 10	3	Horse-derived anti-human thymocyte immunoglobulin	Aplastic anemia	Upjohn Pharmaceuticals, Ltd.	—	—	—	—	—	—	Designation revoked (1998/5/28)	1998/5/28
1993	1993/11/15	(5yaku B) No. 9		Rabbit derived anti-human T-lymphocyte immunoglobulin	Aplastic anaemia	Nippon Zoki Pharmaceutical Co., Ltd	Severe to moderate aplastic anaemia	Nippon Zoki Pharmaceutical Co., Ltd	1995/9/29	Zetbulin for IV infusion 100mg	Zetbulin® I.V. drip 100mg	Anti-human T-Lymphocyte Immunoglobulin, Rabbit		
1993	1993/11/15	(5yaku B) No. 8		Rabbit derived anti-human thymocyte immunoglobulin	Aplastic anaemia	Rhône-Poulenc Japan	Aplastic anaemia, moderate or more severe cases	Genzyme Japan K.K.	2008/7/16	Thymoglobulin for IV infusion 25mg	Thymoglobuline®	Anti-human Thymocyte Immunoglobulin, Rabbit		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

(Current as of the date September 13, 2012)

Fiscal year of designation for counting purpose	Date of designation	Designation number	Grant period (in years)	Name of pharmaceutical drug receiving designation	Diseases or indications and effectiveness designated	Names of applicants receiving designation	Indications and effectiveness approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Trade name	General name of approved product	Notes	Date of revocation of designation
1993	1993/11/15	(5yaku B) No. 7		Indomethacin sodium	For use when maintenance therapy of restriction of water intake and diuretic treatments are ineffective for patent ductus arteriosus (PDA)in premature infants	Banyu Pharmaceuticals	For use when maintenance therapy of restriction of water intake and diuretic treatments are ineffective for patent ductus arteriosus (PDA)in premature infants	MSD Japan	1994/10/5	INDACIN IV 1mg	INDACIN® IV 1mg	Indometacin Sodium		
1993	1993/11/15	(5yaku B) No. 6		Interferon gamma-1a (genetical recombination)	Reducing the frequency and severity of serious infections associated with chronic granulomatous disease	Shionogi & Co., Ltd.	Reducing the frequency and severity of serious infections associated with chronic granulomatous disease	Shionogi & Co., Ltd.	1998/6/30	Imunomax-γ for injection 50 Imunomax-γ for injection 100	Imunomax®-γ	Interferon Gamma-1a (Genetical Recombination)		
1993	1993/11/15	(5yaku A) No. 5	1	Interferon alpha	HAM HTLV-associated myelopathy	Sumitomo Pharmaceuticals	HTLV-associated myelopathy	Dainippon Sumitomo Pharma Co., Ltd.	2000/1/18	Sumiferon injection vial 3,000,000 IU Sumiferon injection DS 3,000,000 IU	Sumiferon®	Interferon Alfa (NAMALWA)		
1993	1993/11/15	(5yaku B) No. 4		Albendazole	Echinococcosis	SmithKline Beecham	Echinococcosis	GlaxoSmithCline K.K.	1994/1/19	Eskazole tablet 200mg	Eskazole® Tablets200mg	Albendazole		
1993	1993/11/15	(5yaku A) No. 3	2	Alprostadil-Alfadex	Primary hypertension or pulmonary hypertension after open heart surgery; pulmonary hypertension as a complication of collagen disease	Ono Pharmaceutical Co., Ltd.	—	—	—	—	—	—	Designation revoked (2001/8/24)	2001/8/24
1993	1993/11/15	(5yaku B) No. 2		Alglucerase	Improvement of the following symptoms in patients with Gaucher's disease type I: anaemia, thrombocytopenia, and hepatosplenomegaly.	Genzyme Japan K.K.	Improvement of the following symptoms in patients with Gaucher's disease type I: anaemia, thrombocytopenia, hepatosplenomegaly and other symptoms in bones.	Genzyme Japan K.K.	1996/7/10	Ceredase injection 50U Ceredase injection 400U	—	—	These two formulations are currently being supplied. Designation number "Drug 8 No. 81" is being supplied instead.	
1993	1993/11/15	(5yaku A) No. 1	2	Mixture of L-arginine and L-arginine hydrochloride granules; L-arginine hydrochloride injectable	The granule form improves the neurological symptoms due to hyperammonaemia, of vomiting, lethargy and abnormal electroencephalogram, and the other symptoms due to argenine deficiency, such as growth retardation. These symptoms are caused by either congenital amino acid transfer abnormalities or the congenital urea cycle enzyme abnormalities: carbamyl phosphate synthetase deficiency, ornithine transcarbamylase deficiency, argininosuccinate synthetase deficiency (citrullinemia) and argininosuccinate catabolic enzyme deficiency (argininosuccinic aciduria). The injection form is for emergency use to lower the blood level of ammonia after it has risen steeply due to wasting syndrome diseases and has not been controlled with the granule form.	Roussel Morishita Company, Limited	<Granule> Inhibition of rising blood level of ammonia in the following diseases: congenital urea cycle enzyme abnormalities - carbamyl phosphate synthetase deficiency, ornithine transcarbamylase deficiency, argininosuccinate synthetase deficiency (citrullinemia) and argininosuccinate catabolic enzyme deficiency (argininosuccinic aciduria) - and lysinuric protein intolerance, excepting the patients with strong inhibition of arginine absorption <Injection> Emergency use to lower the blood level of ammonia in patients with acute exacerbation of hyperammonaemia, uncontrollable through oral intake of the granule form in the following diseases: congenital urea cycle enzyme abnormalities - carbamyl phosphate synthetase deficiency, ornithine transcarbamylase deficiency, argininosuccinate synthetase deficiency (citrullinemia) and argininosuccinate catabolic enzyme deficiency (argininosuccinic aciduria) - and lysinuric protein intolerance	Ajinomoto Co. Inc.	1999/9/22	Argi-U Granule Argi-U Injection 20g	Argi-U® Granule Argi-U® Injection	L-Arginine Hydrochloride, L-Arginine L-Arginine Hydrochloride		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 5: List of items designated as orphan medical devices for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation	Date of designation	Designation number	Grant period (years)	Name of medical device receiving designation	Indications and effectiveness or intended uses designated	Names of applicants receiving designation	Indications and effectiveness or intended uses approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Notes	Date of revocation of designation
2011	2011/6/17	(23ki) No. 23		Pump for external artificial heart	Used for improvement of circulation before heart transplantation or for restoration of heart functions for pediatric patients (body weight between 1kg and 60kg, with body surface area 1.5 m^2) with severe heart failure, where clinical symptoms are not improved with conventional medication or circulation assisting devices.	Cardio, Inc.	—	—	—	—		
2010	2011/3/18	(23ki) No. 22		Autologous transplantation of human tissue	Used for refractory ulcers and sores in patients with epidermolysis bullosa. This product is intended for rapid epithelialization of ulcer sites or refractory sores.	Japan Tissue Engineering Co., Ltd.	—	—	—	—		
2009	2010/3/19	(22ki) No. 21	1	Fetal shunt	This device is an indwelling shunt tube with a lumen between the fetal chest cavity and the maternal amniotic fluid cavity for continuous drainage of pleural effusion accumulations from the fetal thoracic cavity into the amniotic fluid cavity to improve the fetal hydrops, therefore preventing pulmonary hypoplasia, thus prolonging the pregnancy.	Hakko Co., Ltd.	Used for continuous drainage of pleural effusion into maternal amniotic fluid cavity when thoracocentesis failed to treat fetal pleural effusion.	Hakko Co., Ltd.	2011/12/20	Fetal shunt		
2009	2009/10/28	(21ki) No. 20	3	Bronchial filler	Treatment of intractable and refractory pneumothorax or bronchial fistula where surgery is difficult Improvement of clinical symptoms of patients with pustular psoriasis	Harada Corporation	—	—	—	—		
2009	2009/7/7	(21ki) No. 19	3	Purifier for the removal of blood cells	Improvement of clinical symptoms of patients with pustular psoriasis	JIMRO Co., Ltd.	Improvement of clinical symptoms of patients with pustular psoriasis	JIMRO Co., Ltd.	2012/6/25	Adacolumn		
2008	2009/3/11	(21ki) No. 18		Implantable left ventricular assist system	Implantable left ventricular assist system for improvement of circulation in patients with end-stage heart failure for which heart transplantation is indicated.	Terumo Co., Ltd.	This device is used to improve circulation pre-surgery in the patient with severe heart failure with continuous decompensation despite conventional treatment (assisted circulation and existing drug therapy) for whom heart transplantation is the only life-saving option.	Terumo Co., Ltd.	2010/12/8	DuraHeart Left Ventricular Assist System		
2008	2008/12/15	(20ki) No. 17	2	Implantable left ventricular assist system	Used for patients with end-stage severe heart failure as a bridge to heart transplantation who are indicated for and are waiting for heart transplantation, as well as being in imminent risk of death due to deterioration of heart function.	Century Medical, Inc.	—	—	—	—		
2008	2008/12/15	(20ki) No. 16	1	Semiconductor laser photodynamic therapy (PDT)	This medical equipment is used in conjunction with the light-sensitive substance talaporfin sodium for the treatment of malignant glioma.	Panasonic Shikoku Electronics Co., Ltd. (Currently: Panasonic Healthcare Co., Ltd.)	—	—	—	—		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Fiscal year of designation	Date of designation	Designation number	Grant period (years)	Name of medical device receiving designation	Indications and effectiveness or intended uses designated	Names of applicants receiving designation	Indications and effectiveness or intended uses approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Notes	Date of revocation of designation
2008	2008/6/11	(20ki) No. 15	2	Non-autologous cell cultured corneal epithelial cell sheet	Improvement of visual function or repair of corneal epithelium of patients with symptoms of corneal epithelial cell impoverishment	ArBlast Co., Ltd.	—	—	—	—		
2008	2008/6/11	(20ki) No. 14		Prothesis promoting intravascular embolization in macrocirculation	This device is used to prevent a coil surgical device from protruding and derailing into the parent artery at the time of coil embolization surgery for the patient with an unruptured cerebral aneurysm (more than 10㎜ maximum diameter) or a wide-neck cerebral aneurysm (wide-neck defined as neck width >= 4㎜ or dome-to-neck ratio < 2) that is difficult to treat with surgical intervention (e.g. clipping) or with coil embolic therapy using embolic coils alone.	Boston Scientific Japan Co., Ltd.	—	—	—	—	Designation revoked (2011/12/9)	2011/12/9
2007	2007/7/6	(19ki) No. 13	2	Implantable left ventricular assist system	This device is used to Improve and maintain blood circulation in irreversible and end-stage heart failure with dilated cardiomyopathy or ischemic heart disease in patients for which heart transplantation is indicated who have no prognosis of recovery with non-surgical treatments (drug therapy and IABP for circulation assistance) and whose decreased heart function is life-threatening.	Sun Medical Technology Research Corp.	This device is used to improve circulation pre-surgery in the patient with severe heart failure with continuous decompensation despite conventional treatment (assisted circulation and existing drug therapy) for whom heart transplantation is the only life-saving option.	Sun Medical Technology Research Corp.	2010/12/8	EVAHEART Left Ventricular Assist System		
2005	2005/12/9	(17ki) No. 12		Prothesis promoting intravascular embolization in macrocirculation	This device is used to prevent a coil surgical device from protruding and derailing into the parent artery at the time of coil embolization surgery for the patient with an unruptured cerebral aneurysm (more than 10㎜ maximum diameter) or a wide-neck cerebral aneurysm (wide-neck defined as neck width >= 4㎜ or dome-to-neck ratio < 2) that is difficult to treat with surgical intervention (e.g. clipping) or with coil embolic therapy using embolic coils alone.	Johnson & Johnson Co.	This device is used for preventing a coil surgical device from protruding and derailing into the parent artery at the time of small coil embolization surgery on patients with unruptured cerebral aneurysms (more than 7㎜ maximum diameter on a parent artery 2.5㎜ to 4㎜ in diameter) and wide-neck cerebral aneurysms (wide-neck defined as neck width >= 4㎜ or dome-to-neck ratio < 2) who are difficult to treat with surgical intervention (e.g. clipping) or with coil embolic therapy using embolic coils alone.	Johnson & Johnson Co.	2010/1/8	CODMAN ENTERPRISE Vascular Reconstruction Device (VRD)		
2005	2005/10/14	(17ki) No. 11		Purifier for the removal of blood cells	Inhibition of ocular Behcet's disease symptoms with refractory uveoretinitis	JIMRO Co., Ltd.	—	—	—	—		
2001	2001/8/1	(13gu) No. 10		Programmable implantable pump for continuous infusion	Cerebral palsy (pediatric), spinal cord vascular disorders, cervical spondylosis, ossification of posterior longitudinal ligament, multiple sclerosis, spinocerebellar degeneration (hereditary spastic paraplegia), or severe spastic paralysis due to trauma sequelae (spinal cord injury or head injury)	Medtronic Japan Co., Ltd.	The device is a pump for intrathecal administration of intrathecal baclofen, indicated for severe spastic paralysis resulting from cerebrospinal diseases (limited to cases where existing treatments are ineffective). It should be noted that this product is intended for adults (over 17 years of age).	Medtronic Japan Co., Ltd.	2005/3/25	SynchroMed EL pump		
2001	2001/4/23	(13gu) No. 9	3	Adsorption type blood purifier	To induce remission in Crohn's disease patients in active phase	JIMRO Co., Ltd.	Used for inducing remission in patients with active phase Crohn's disease experiencing moderate to severe clinical symptoms caused by colorectal pathological changes, where nutritional therapy and existing drug therapies are ineffective or contraindicated.	JIMRO Co., Ltd.	2008/9/2	Adacolumn		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Table 5: List of items designated as orphan medical devices for rare diseases with notes

(Current as of the date September 13, 2012)

Fiscal year of designation	Date of designation	Designation number	Grant period (years)	Name of medical device receiving designation	Indications and effectiveness or intended uses designated	Names of applicants receiving designation	Indications and effectiveness or intended uses approved for manufacture and sale	Names of applicants obtaining approval for manufacture and sale	Date of approval for manufacture and sale	Approved product name for manufacture and sale	Notes	Date of revocation of designation
2000	2000/6/16	(12gu) No. 8	5	Magnetic cell concentration system	Selection and isolation of hematopoietic stem cells (CD34+ cells) for patients with malignant tumor, non-neoplastic disease, congenital disease or severe autoimmune disease during allogeneic bone marrow transplantation, allogeneic peripheral blood stem cell transplantation, autologous bone marrow transplantation, autologous peripheral blood stem cell transplantation or umbilical cord blood transplantation	Kirin Brewery Co., Ltd.	—	—	—	—	Designation revoked (2006/12/21)	2006/12/21
1999	1999/8/25	(11gu) No. 7		Implantable left ventricular assist system	Used for long-term maintenance of blood circulation, including as a bridge to heart transplantation for patients with irreversible end-stage heart failure, at risk of imminent death due to cardiac hypofunction.	Baxter Co., Ltd.	Used for improvement of circulation for patients with severe heart failure who have continuous decompensation despite conventional treatment (assisted circulation and existing drug therapy) at risk of imminent death without heart transplantation.	Edwards Lifesciences Corp.	2001/8/31	Novacor Left Ventricular Assist System		
1999	1999/5/27	(11gu) No. 6		Implantable left ventricular assist system	This device is indicated for prevention of multi-organ failure and reduction of drug use for patients waiting for heart transplantation who have had severe heart failure or who require long-term circulatory support and therefore have end-stage heart disease due to dilated cardiomyopathy, ischemic heart disease, acquired valvular disease, chronic heart failure caused by acute myocarditis, or other diseases such as cardiogenic circulatory failure, where survival is difficult even with maximal medical therapy approved in Japan and/or assisted circulation.	Nissho Co., Ltd.	Used for improvement of circulation in patients with severe heart failure with continuous decompensation, after failing conventional treatments (assisted circulation and drug therapy) where no viable treatment options remain other than heart transplantation.	Nipro Co., Ltd.	2009/11/18	HeartMate XVE Implantable Left Ventricular Assist System		
1996	1996/4/1	(8gu A) No. 5	3	Partially disposable pump system for pain relief	Alleviation of severe pain for various types of cancer patients when oral administration, subcutaneous injection or intravenous injection of narcotic drugs does not give sufficient pain relief.	Terumo Co., Ltd.	—	—	—	—	Designation revoked (2001/8/24)	2001/8/24
1995	1995/4/1	(7gu A) No. 4	2	Lymphocyte isolation equipment	Elimination of T lymphocytes from bone marrow for allogeneic transplantation	Asahi Medical Co., Ltd.	—	—	—	—	Designation revoked (1999/5/27)	1999/5/27
1995	1995/4/1	(7gu A) No. 3	3	Magnetic cell concentration system	Selection and isolation of hematopoietic stem cells (CD34+ cells) using a concentration system during allogeneic bone marrow transplantation, autologous peripheral blood stem cell transplantation or autologous bone marrow transplantation.	Baxter Co., Ltd.	Selection and isolation of hematopoietic stem cells (CD34+ cells) using a concentration system during autologous peripheral blood stem cell transplantation or autologous bone marrow transplantation in patients with malignant tumors	Takara Bio, Inc.	2001/8/31	Isolex 300	This formulation is currently not being supplied.	
1993	1993/11/15	(5gu B) No. 2		Adsorption type blood purifier	Patients with advanced dialysis-related amyloidosis (DRA) resulting in significant restrictions in daily life due to severe mobility impairment	Kanegafuchi Chemical Industrial Co., Ltd.	Patients with advanced dialysis-related amyloidosis (DRA) resulting in significant restrictions in daily life due to severe mobility impairment	Kaneka Corporation	1994/4/8	Lixelle		
1993	1993/11/15	(5gu B) No. 1		Implantable defibrillator	Patients at high risk of sudden death due to ventricular tachyarrhythmia	Medtronic Japan Co., Ltd.	To be used for patients at high risk of sudden death from ventricular tachyarrhythmia	Medtronic Japan Co., Ltd.	1994/7/7	PCD 7217 implantable		

(Note) As of August 16, 2012, where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. For more details, please see the website.

Notes for Table 4 as of September 13, 2012

Grant period

This is the number of years that a grant has been received up to the prior fiscal year by a corporation to develop the orphan drug designated by the Minister of the Ministry of Health, Labor and Welfare (MHLW), which company submitted a grant application to the National Institute of Biomedical Innovation (NIBIO). If there is no number, there is no record of a grant application having been filed with NIBIO for this item. The results of the current fiscal year grants are not shown.

Name of pharmaceutical drug receiving designation

This is the name of the drug that the Minister of MHLW designated as an orphan drug. This name may differ from the approved product name for manufacture and sale or the generic name (primarily that of the active ingredient).

Diseases or indications and effectiveness designated

These are the diseases or indications and effectiveness described when the designation was approved by the Minister of MHLW. If the record was revised or added after the approval for manufacture and sale, the description of indications and effectiveness or intended uses may differ from the original description.

Names of applicants receiving designation

These are the names of the applicants, such as the corporate names at the time of approval of the orphan drug by the Minister of MHLW. A name may cease to exist over time, due to merger or acquisition.

Indications and effectiveness approved for manufacture and sale

These are the current indications and effectiveness for items approved for manufacture and sale. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted.

Names of applicants obtaining approval for manufacture and sale

The approved items for manufacture and sale show the names of the applicants (corporate names) at the time of approval. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. Before the procedure for revocation of the designation has been completed, the names of applicants or companies may be still shown as being approved for manufacture and sale.

Date of approval for manufacture and sale

This is the date of approval by the Minister of MHLW for manufacture and sale. This definition includes the cases with partial changes in the terms and conditions, such as additional indications approved. In some instances, multiple dates are shown where additional indications and/or effectiveness were added, the license was obtained by other companies, or a merger or acquisition occurred. If changes are made to the commercial name, such as adding the shape or capacity to it, then the date of first approval for manufacture and sale is shown. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted.

Approved product name for manufacture and sale

This is the product name approved for items which are approved for manufacture and sale. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted.

***1: (5yaku A) No. 15, (15yaku) No. 16**

The designation obtained in 1993 by Teijin, Ltd. only, was revoked effective November 5, 2003 and Teijin Pharma Limited obtained this designation on the same date.

***2: (5yaku A) No. 35**

The grant was given at the same time as the one received by designation number (5yaku A) No. 34.

***3: (12yaku) No. 56**

The designation obtained in 1994 was revoked effective December 20, 2000 and Nippon Kayaku Co., Ltd. obtained the designation on the same date.

***4: (6yaku A) No. 67**

After Toray Industries, Inc. obtained the designation on July 1, 1994, Kaken Pharmaceutical Co., Ltd. obtained the designation on April 1, 1996. The grant was given only to Toray Industries, Inc.

***5: (8yaku A) No. 93**

The designation for diseases or indications and effectiveness was for "detection of residual thyroid after thyroidectomy due to thyroid cancer, support of in-vivo diagnostics for detection of metastatic sites of metastatic thyroid cancer and pretreatment for radioactive iodine treatment to enhance uptake of iodine." Out of this definition, the grant was given for 7 years for the portion of "detection of residual thyroid after thyroidectomy due to thyroid cancer and support of in-vivo diagnostics for detection of metastatic sites of metastatic thyroid cancer," for which approval for manufacture and sale was obtained on October 16, 2008. Also, a one-year grant was given for the portion of "pretreatment for radioactive iodine treatment to enhance uptake of iodine." Accordingly, a partial modification was made to the approval for manufacture and sale on May 25, 2012, as noted.

During the development phase, the approval was for "pre-treatment for radioactive iodine treatment to enhance uptake of iodine in the treatment of metastatic thyroid cancer with radioactive iodine after thyroidectomy for thyroid cancer."

***6: (11yaku A) No. 95**

Regarding the designation that was received, approval was granted for manufacture and sale in 1997. However, on April 6, 1999 the designation was revoked due to corporate merger and other factors, and Glaxo Japan Corp. (currently GlaxoSmithKline K.K.) received the manufacturing and sales approval on the same date. Therefore, there are two dates listed for approval for manufacture and sale.

***7: (8yaku A) No. 105**

There are two dates listed for approval for manufacture and sale. This is because a separate approval for manufacture and sale for the additional conditions of delivery method and dosage were approved on the latter date.

***8: (14yaku) No. 109**

The original designation obtained on January 24, 2002 was revoked, and Novartis Pharma K.K. obtained this designation on the same date.

***9: (10yaku A) No. 114**

There are two dates listed for approval for manufacture and sale. This is because one of the two designations for diseases or indications and effectiveness was approved on June 20, 2001 and the remaining one was approved on September 19, 2003.

***10: (14yaku) No. 119**

The designation obtained in 1999 was revoked on December 20, 2002, and Pharmacia (currently Pfizer Inc.) obtained this designation on the same date.

***11: (11yaku) No. 126**

The designation obtained in 1999 was revoked on August 5, 2004, and Kirin Brewery Company, Ltd. (currently Kyowa Hakko Kirin Co., Ltd.) obtained this designation on the same date. This designation was revoked on July 2, 2010. On the same date, the name of the drug was changed to anagrelide hydrochloride and Shire Pharmaceuticals Ireland, Limited obtained the designation.

***12: (15yaku) No. 137**

The designation obtained in 2000 was revoked on July 1, 2003, and Ajinomoto, Co., Inc. obtained this designation on the same date. This designation was revoked on February 3, 2006.

***13: (14yaku) No. 138**

The designation obtained in 2000 was revoked on December 2, 2002, and Mitsubishi Pharma Corporation obtained this designation on the same date.

***14: (15yaku) No. 150**

The designation obtained in 2001 was revoked on November 5, 2003, and Teijin Pharma Limited obtained this designation on the same date. This designation was revoked on March 19, 2012.

***15: (15yaku) No. 153**

The designation obtained in 2001 was revoked on November 5, 2003, and Teijin Pharma Limited obtained this designation on the same date. This designation was revoked on May 13, 2010.

***16: (15yaku) No. 163**

The designation obtained in 2003 was revoked on March 30, 2004 for only the Taisho Pharmaceutical Co., Ltd. portion, and Sanofi-Synthélabo K.K. (currently sanofi-aventis K.K.) obtained this designation on the same date.

***17: (16yaku) No. 168**

On July 16, 2008, the approval for manufacture and sale was obtained for "Anticoagulant for prophylaxis or treatment of thrombosis in patients with heparin-induced thrombocytopenia (HIT)." Then, on May 20, 2011, the approval for manufacture and sale was obtained for "anticoagulant for patients undergoing percutaneous coronary intervention (PCI) with heparin-induced thrombocytopenia (HIT) type II or at risk of HIT type II" and "anticoagulant for hemodialysis patients with heparin-induced thrombocytopenia (HIT) type II to prevent coagulation of perfused blood during extracorporeal circulation."

***18: (16yaku) No. 171**

The designation was obtained on July 7, 2004 by Fujisawa Pharmaceutical Co., Ltd. Later, the designation was obtained on December 13, 2005 by Senju Phamaceutical Co., Ltd.

Notes for Table 4 as of September 13, 2012

*19: (19yaku) No. 195
The date of approval for manufacture and sale is different for the two different dose types. Prezista 300mg tablet was approved for manufacture and sale on November 22, 2007 and Prezista naive 400mg tablet was approved for manufacture and sale on October 16, 2009. The differences are due to patients having or not having previous treatment history.

*20: (20yaku) No. 210
Previously, the approved "indications and effectiveness" was limited to "Myasthenia gravis when post-thymectomy steroid treatment is ineffective or it cannot be administered due to adverse side effects." With this approval for manufacture and sale, the indication was expanded to myasthenia gravis other than the previously mentioned conditions.

*21: (18yaku) No. 192
Amgen Inc., (currently Amgen Development Co., Ltd.) obtained the designation on August 11, 2006. Later, Kyowa Hakko Kirin Co., Ltd. obtained the designation on February 2, 2010.

*22: (22yaku) No. 229
Baxter Ltd. obtained the designation on June 16, 2010. Later, Takeda Pharmaceutical Co., Ltd. obtained the designation on June 10, 2011.

*23: (8yaku A) No. 91
Approval for manufacture and sale was obtained on January 17, 2002, and the product with a different dosage was added on August 17, 2011.

*24: (15yaku) No. 167
The approval for manufacture and sale was obtained on October 20, 2006 for "relapse of multiple myeloma or refractory multiple myeloma." On September 16, 2011, an additional indication was approved to treat "untreated multiple myeloma;" therefore the indications or effectiveness was changed to "multiple myeloma."

*25: (22yaku) No. 216
Ucyclyd Pharma, Inc. obtained the designation on September 12, 2008. Later, CMIC Pharmaceutical Co., Ltd. obtained the designation on July 11, 2011.

*26: (20yaku) No. 211
The orphan designation obtained by UMN Pharma Corporation in 2008 was revoked as of November 16, 2011, and Asteras Pharmaceutical Corporation obtained the designation on the same date. The name of the drug was changed from the prior UMN-0501 to ASP7373.

*27: (22yaku) No. 232
The grant was provided for one year for a portion of the designated diseases or indications and effectiveness, "adult CCR4-positive adult T-cell leukemia lymphoma," and approval for manufacture and sale was obtained on March 30, 2012. A grant was provided for 2 years for the "delivery method to use in combined therapy with mLSG15 treatment for patients newly receiving the treatment." The "delivery method to use in combined therapy with mLSG15 treatment for patients newly receiving the treatment" is currently under development.

*28: (22yaku) No. 230
The grant was provided for limited to administration by inhalation.

Notes for Table 5 as of September 13, 2012

Grant period
This is the number of years up that a grant has been received up to the prior fiscal year by a corporation to develop the orphan medical device designated by the Minister of the Ministry of Health, Labor and Welfare (MHLW), which company submitted a grant application to the National Institute of Biomedical Innovation (NIBIO). If there is no number, there is no record of a grant application having been filed with NIBIO for this item. The results of the current fiscal year grants are not shown.

Name of medical device receiving designation
This is the name of the device that the Minister of MHLW designated as an orphan medical device. It may differ from the approved product name for manufacture and sale or the generic name.

Indications and effectiveness or intended uses designated
These are the indications and effectiveness or intended uses described when the designation was approved by the Minister of MHLW. If the record was revised or added after the approval for manufacture and sale, the description of indications and effectiveness or intended uses may differ from the original description.

Names of applicants receiving designation
This is a list of names of the applicants, such as the corporate names at the time of approval of the orphan medical device by the Minister of MHLW. A name may cease to exist over time, due to merger or acquisition.

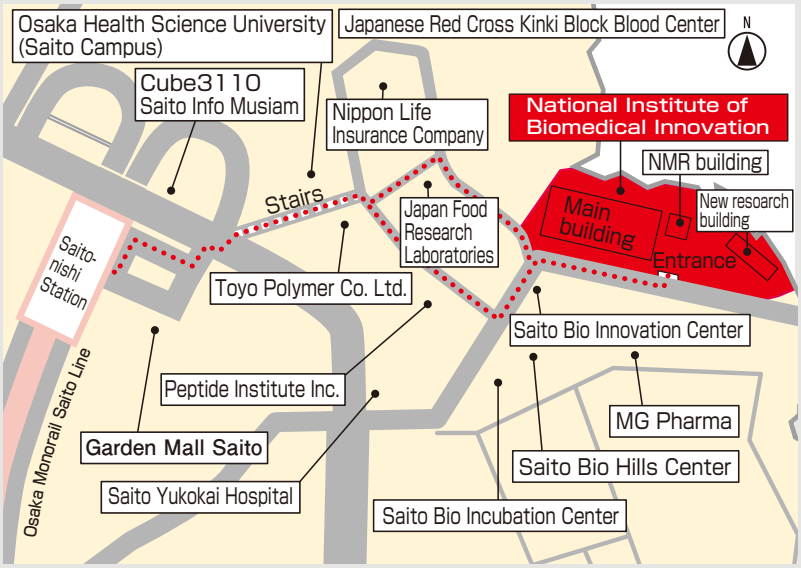
Indications and effectiveness or intended uses approved for manufacture and sale
These are the indications and effectiveness or intended uses for the items approved for manufacture and sale. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted.

Names of applicants obtaining approval for manufacture and sale
The approved items for manufacture and sale show the names of the applicants (corporate names) at the time of approval. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted. Before the procedure for revocation of the designation has been completed, the names of applicants or companies may be still shown as being approved for manufacture and sale.

Date of approval for manufacture and sale
This is the date of approval by the Minister of MHLW for manufacture and sale. This definition includes the cases with partial changes in the terms and conditions, such as additional indications approved. In some instances, multiple dates are shown where additional indications and/or effectiveness were added, the license was obtained by other companies, or a merger or acquisition occurred. If changes are made to the commercial name, such as adding the shape or capacity to it, then the date of first approval for manufacture and sale is shown. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted.

Approved product name for manufacture and sale
This is the product name approved for items which are approved for manufacture and sale. Where there is a dash, the item is in the development process with testing and research or in the examination process, or else the designation was revoked; therefore approval for manufacture and sale was not granted.

National Institute of Biomedical Innovation - Guide map



Map of Saito, Osaka
National Institute of Biomedical Innovation

Access

[Train] Take the Osaka Monorail to "Saito-nishi".
and walk 10 minutes.

[Taxi] about 20 min. from "Senri-chuo", about 15 min. from "Kita-senri" station

[Driving] About 15 min. from Ibaraki Interchange, Meishin Expressway
About 15 min. from Suita Interchange