

Supplementary Material 1. Seventy-eight pharmaceutical companies sampled and the start and end date of the period when the payment data was disclosed

Pharmaceutical company	Period of the payment data in 2016	
	Start date	End date
AbbVie GK	January 1, 2016	December 31, 2016
Asahi Kasei Pharma Corporation	April 1, 2016	March 31, 2017
Aska Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Astellas Pharma Inc.	April 1, 2016	March 31, 2017
AstraZeneca plc	January 1, 2016	December 31, 2016
Ayumi Pharmaceutical Corporation	April 1, 2016	March 31, 2017
Bayer Yakuhin, Ltd.	January 1, 2016	December 31, 2016
Bee Brand Medico Dental. Co., Ltd. ^a	April 1, 2016	March 31, 2017
Biofermin Seiyaku Co., Ltd. ^b	April 1, 2016	March 31, 2017
Bristol-Myers Squibb K.K.	April 1, 2016	March 31, 2017
Celgene Corporation	January 1, 2016	December 31, 2016
Chugai Pharmaceutical Co., Ltd.	January 1, 2016	December 31, 2016
Daiichi Sankyo Company, Limited.	April 1, 2016	March 31, 2017
EA Pharma Co., Ltd.	April 1, 2016	March 31, 2017
Eisai Co., Ltd.	January 1, 2016	December 31, 2016
Eli Lilly Japan K.K.	January 1, 2016	December 31, 2016
EN Otsuka Pharmaceutical Co., Ltd. ^c	January 1, 2016	December 31, 2016
Fujimoto Pharmaceutical Corporation	July 1, 2016	June 30, 2017
Fuso Pharmaceutical Industries, Ltd.	April 1, 2016	March 31, 2017
GlaxoSmithKline K.K.	January 1, 2016	December 31, 2016
Hisamitsu Pharmaceutical Co., Inc.	March 1, 2016	February 28, 2017
Janssen Pharmaceutical K.K.	January 1, 2016	December 31, 2016
Japan Tobacco Inc. ^d	Not available	Not available
Kaken Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Kissei Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Kowa Company, Ltd.	April 1, 2016	March 31, 2017
Kracie Holdings, Ltd.	January 1, 2016	December 31, 2016
Kyorin Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017

Kyoto Pharmaceutical Industries, Ltd.	June 1, 2016	May 31, 2017
Kyowa Hakko Kirin Company, Ltd.	January 1, 2016	December 31, 2016
Maruho Co., Ltd.	October 1, 2016	September 30, 2017
Maruishi Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Meiji Seika Pharma Co., Ltd.	April 1, 2016	March 31, 2017
Merck Serono Co., Ltd.	January 1, 2016	December 31, 2016
Minophagen Pharmaceutical Co.	April 1, 2016	March 31, 2017
Mitsubishi Tanabe Pharma Corporation	April 1, 2016	March 31, 2017
Mochida Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
MSD K.K.	January 1, 2016	December 31, 2016
Mylan Seiyaku Ltd.	January 1, 2016	December 31, 2016
Nihon Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Nippon Boehringer Ingelheim Co., Ltd.	January 1, 2016	December 31, 2016
Nippon Chemiphar Co., Ltd.	January 1, 2016	December 31, 2016
Nippon Kayaku Co., Ltd.	April 1, 2016	March 31, 2017
Nippon Shinyaku Co., Ltd.	April 1, 2016	March 31, 2017
Nippon Zoki Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Novartis Pharma K.K.	January 1, 2016	December 31, 2016
Novo Nordisk Pharma Ltd.	January 1, 2016	December 31, 2016
Ono Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Otsuka Holdings Co., Ltd. ^e	January 1, 2016	December 31, 2016
Otsuka Pharmaceutical Co., Ltd.	January 1, 2016	December 31, 2016
Otsuka Pharmaceutical Factory, Inc. ^f	January 1, 2016	December 31, 2016
Pfizer Japan Inc.	December 1, 2015	November 30, 2016
POLA-Pharma.	January 1, 2016	December 31, 2016
Research Institute for Microbial Diseases	April 1, 2016	March 31, 2017
Sanofi K.K.	January 1, 2016	December 31, 2016
Santen Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Sanwa Kagaku Kenkyusho Co., Ltd.	April 1, 2016	March 31, 2017
Seikagaku Corporation	April 1, 2016	March 31, 2017
Senju Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Shionogi & Co., Ltd.	April 1, 2016	March 31, 2017
Shire Japan K.K.	January 1, 2016	December 31, 2016
Sumitomo Dainippon Pharma Co., Ltd.	April 1, 2016	March 31, 2017

Taiho Pharmaceutical Co., Ltd.	January 1, 2016	December 31, 2016
Taisho Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Taisho Toyama Pharmaceutical Co., Ltd. ^g	April 1, 2016	March 31, 2017
Takeda Pharmaceutical Company Ltd.	April 1, 2016	March 31, 2017
Teijin Pharma Limited.	April 1, 2016	March 31, 2017
Teikoku Seiyaku Co., Ltd.	January 1, 2016	December 31, 2016
Terumo Corporation	April 1, 2016	March 31, 2017
Toa Eiyo Ltd.	April 1, 2016	March 31, 2017
Toray Industries, Inc.	April 1, 2016	March 31, 2017
Torii Pharmaceutical Co., Ltd.	January 1, 2016	December 31, 2016
Toyama Chemical Co., Ltd.	April 1, 2016	March 31, 2017
Tsumura & Co.	April 1, 2016	March 31, 2017
UCB Japan Co., Ltd.	January 1, 2016	December 31, 2016
Wakamoto Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017
Yakult Honsha Company, Limited.	April 1, 2016	March 31, 2017
Zeria Pharmaceutical Co., Ltd.	April 1, 2016	March 31, 2017

^a Affiliated company of Ono Pharmaceutical Co., Ltd.; ^b affiliated company of Taisho

Pharmaceutical Co., Ltd.; ^c affiliated company of Otsuka Pharmaceutical Co., Ltd.; ^d the company

left the Japan Pharmaceutical Manufacturers Association on March 31, 2018; ^e affiliated company of

Otsuka Pharmaceutical Co., Ltd.; ^f affiliated company of Otsuka Pharmaceutical Co., Ltd.; ^g

affiliated company of Taisho Pharmaceutical Co., Ltd. and Toyama Chemical Co., Ltd.

Supplementary Material 2. Monetary value of payment (¥ [£]) in each company according to oncology subspecialty

Company	Respirology	Gastroenterology	Hematology	Breast	Head and neck	Gynaecology	Urology	Dermatology	Other or undetermined	Total
Chugai Pharmaceutical Co., Ltd.	32,937,605 [223,003]	34,760,717 [235,347]	17,702,450 [119,854]	10,548,519 [71,419]	0 [0]	332,202 [2,249]	229,104 [1,551]	0 [0]	7,319,896 [49,559]	103,830,493 [702,982]
AstraZeneca plc	44,013,864 [297,995]	1,342,002 [9,086]	111,370 [754]	3,454,557 [23,389]	623,673 [4,223]	77,959 [528]	1,269,618 [8,596]	0 [0]	1,035,742 [7,012]	51,928,785 [351,583]
Taiho Pharmaceutical Co., Ltd.	14,561,511 [98,588]	24,880,266 [168,451]	2,116,030 [14,327]	4,176,377 [28,276]	222,740 [1,508]	33,411 [226]	0 [0]	33,411 [226]	4,699,814 [31,820]	50,723,560 [343,423]
Ono Pharmaceutical Co., Ltd.	29,657,836 [200,798]	4,219,238 [28,566]	5,746,692 [38,908]	1,124,838 [7,616]	2,450,141 [16,589]	0 [0]	133,644 [905]	0 [0]	4,499,348 [30,463]	47,831,737 [323,844]
Eli Lilly Japan K.K.	24,707,436 [167,281]	14,101,874 [95,476]	412,069 [2,790]	4,145,014 [28,064]	0 [0]	0 [0]	0 [0]	0 [0]	1,458,947 [9,878]	44,825,340 [303,489]
Bristol-Myers Squibb K.K.	16,471,626 [111,521]	1,848,742 [12,517]	12,617,772 [85,428]	33,411 [226]	356,384 [2,413]	0 [0]	334,111 [2,262]	0 [0]	1,781,920 [12,064]	33,443,966 [226,432]
Takeda Pharmaceutical Company Ltd.	329,974 [2,234]	14,889,129 [100,807]	9,781,123 [66,223]	579,124 [3,921]	57,276 [388]	0 [0]	286,381 [1,939]	0 [0]	2,357,953 [15,964]	28,280,960 [191,476]
Novartis Pharma K.K.	4,031,596 [27,296]	2,609,889 [17,670]	13,667,153 [92,533]	5,260,980 [35,619]	77,959 [528]	0 [0]	55,685 [377]	0 [0]	1,500,084 [10,156]	27,203,346 [184,180]
Nippon Boehringer Ingelheim Co., Ltd.	24,840,981 [168,185]	189,329 [1,282]	434,110 [2,939]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	523,439 [3,544]	25,987,859 [175,950]

Kyowa Hakko Kirin Company, Ltd.	4,065,005 [27,522]	1,425,536 [9,652]	7,127,681 [48,258]	4,181,946 [28,314]	111,370 [754]	0 [0]	0 [0]	222,740 [1,508]	3,073,817 [20,811]	20,208,095 [136,819]
Pfizer Japan Inc.	7,782,876 [52,694]	788,768 [5,340]	6,543,478 [44,302]	638,311 [4,322]	0 [0]	0 [0]	217,649 [1,474]	0 [0]	538,396 [3,645]	16,509,478 [111,777]
Merck Serono Co., Ltd.	1,002,330 [6,786]	11,588,836 [78,462]	245,014 [1,659]	111,370 [754]	1,603,728 [10,858]	0 [0]	0 [0]	0 [0]	1,826,468 [12,366]	16,377,746 [110,885]
Eisai Co., Ltd.	890,961 [6,032]	1,624,796 [11,001]	1,982,386 [13,422]	7,244,821 [49,051]	1,948,977 [13,196]	0 [0]	0 [0]	0 [0]	2,617,195 [17,720]	16,309,136 [110,421]
Celgene Corporation	0 [0]	226,864 [1,536]	14,722,632 [99,679]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	257,800 [1,745]	15,207,296 [102,961]
Daiichi Sankyo Company, Limited.	1,826,473 [12,366]	1,789,335 [12,115]	700,236 [4,741]	2,615,204 [17,706]	0 [0]	0 [0]	389,796 [2,639]	0 [0]	1,451,057 [9,824]	8,772,101 [59,391]
Bayer Yakuhin, Ltd.	77,959 [528]	4,397,978 [29,776]	645,946 [4,373]	1,264,054 [8,558]	863,118 [5,844]	0 [0]	278,425 [1,885]	0 [0]	813,001 [5,504]	8,340,481 [56,469]
Yakult Honsha Company, Limited.	412,486 [2,793]	5,946,230 [40,259]	51,561 [349]	381,548 [2,583]	0 [0]	0 [0]	0 [0]	0 [0]	1,526,201 [10,333]	8,318,026 [56,317]
Janssen Pharmaceutical K.K.	0 [0]	0 [0]	5,924,886 [40,114]	0 [0]	0 [0]	0 [0]	1,742,945 [11,801]	55,685 [377]	0 [0]	7,723,516 [52,292]
MSD K.K.	2,224,616 [15,062]	946,647 [6,409]	2,338,771 [15,835]	278,425 [1,885]	529,009 [3,582]	0 [0]	0 [0]	0 [0]	0 [0]	6,317,468 [42,772]
Sumitomo Dainippon Pharma Co., Ltd.	478,658 [3,241]	1,926,703 [13,045]	2,712,881 [18,368]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	77,959 [528]	5,196,201 [35,181]

Nippon Kayaku Co., Ltd.	974,487 [6,598]	958,195 [6,487]	55,685 [377]	855,809 [5,794]	222,740 [1,508]	0 [0]	222,740 [1,508]	0 [0]	579,124 [3,921]	3,868,780 [26,194]
Astellas Pharma Inc.	600,000 [4,062]	340,000 [2,302]	1,400,000 [9,479]	100,000 [677]	0 [0]	0 [0]	1,100,000 [7,448]	0 [0]	50,000 [339]	3,590,000 [24,306]
Nippon Shinyaku Co., Ltd.	33,411 [226]	33,411 [226]	2,851,072 [19,303]	0 [0]	0 [0]	0 [0]	211,603 [1,433]	0 [0]	0 [0]	3,129,497 [21,188]
Asahi Kasei Pharma Corporation	77,959 [528]	326,155 [2,208]	2,138,304 [14,477]	0 [0]	0 [0]	0 [0]	111,370 [754]	0 [0]	448,664 [3,038]	3,102,452 [21,005]
Sanofi K.K.	0 [0]	312,500 [2,116]	960,000 [6,500]	370,000 [2,505]	100,000 [677]	0 [0]	750,000 [5,078]	0 [0]	100,000 [677]	2,592,500 [17,552]
Otsuka Holdings Co., Ltd. ^e	100,000 [677]	770,000 [5,213]	1,087,912 [7,366]	0 [0]	46,286 [313]	0 [0]	0 [0]	0 [0]	200,000 [1,354]	2,204,198 [14,923]
Mochida Pharmaceutical Co., Ltd.	0 [0]	679,357 [4,600]	790,727 [5,354]	111,370 [754]	0 [0]	0 [0]	0 [0]	0 [0]	567,987 [3,846]	2,149,441 [14,553]
Teijin Pharma Limited.	550,000 [3,724]	359,790 [2,436]	1,020,000 [6,906]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	170,000 [1,151]	2,099,790 [14,217]
AbbVie GK,	0 [0]	735,042 [4,977]	245,014 [1,659]	1,046,885 [7,088]	0 [0]	0 [0]	0 [0]	55,685 [377]	0 [0]	2,082,626 [14,100]
Shionogi & Co., Ltd.	556,848 [3,770]	443,416 [3,002]	567,160 [3,840]	206,240 [1,396]	0 [0]	0 [0]	0 [0]	0 [0]	175,304 [1,187]	1,948,968 [13,195]
Kyorin Pharmaceutical Co., Ltd.	1,443,680 [9,774]	144,368 [977]	72,184 [489]	0 [0]	0 [0]	0 [0]	206,241 [1,396]	0 [0]	51,560 [349]	1,918,033 [12,986]

Tsumura & Co.	33,411 [226]	1,347,578 [9,124]	167,055 [1,131]	55,685 [377]	0 [0]	77,959 [528]	0 [0]	0 [0]	0 [0]	1,681,688 [11,386]
Meiji Seika Pharma Co., Ltd.	649,656 [4,398]	154,680 [1,047]	278,424 [1,885]	103,120 [698]	0 [0]	0 [0]	0 [0]	0 [0]	103,120 [698]	1,289,000 [8,727]
Terumo Corporation	110,440 [748]	585,332 [3,963]	77,308 [523]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	441,760 [2,991]	1,214,840 [8,225]
Kissei Pharmaceutical Co., Ltd.	222,740 [1,508]	55,685 [377]	0 [0]	0 [0]	0 [0]	0 [0]	144,781 [980]	0 [0]	701,634 [4,750]	1,124,840 [7,616]
Zeria Pharmaceutical Co., Ltd.	77,959 [528]	645,946 [4,373]	222,740 [1,508]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	946,645 [6,409]
Mitsubishi Tanabe Pharma Corporation	77,959 [528]	712,768 [4,826]	33,411 [226]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	111,370 [754]	935,508 [6,334]
EA Pharma Co., Ltd.	0 [0]	752,776 [5,097]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	30,936 [209]	783,712 [5,306]
Taisho Toyama Pharmaceutical Co., Ltd.	590,261 [3,996]	0 [0]	33,411 [226]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	77,959 [528]	701,631 [4,750]
Kowa Company, Ltd.	0 [0]	33,411 [226]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	556,851 [3,770]	590,262 [3,996]
Hisamitsu Pharmaceutical Co., Inc.	22,274 [151]	89,096 [603]	0 [0]	167,055 [1131]	0 [0]	15,591 [106]	0 [0]	0 [0]	245,014 [1,659]	539,030 [3,649]
Novo Nordisk Pharma Ltd.	0 [0]	0 [0]	474,360 [3,212]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	474,360 [3,212]

Sanwa Kagaku Kenkyusho Co., Ltd.	0 [0]	0 [0]	445,480 [3,016]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	445,480 [3,016]
Aska Pharmaceutical Co., Ltd.	0 [0]	111,370 [754]	0 [0]	77,959 [528]	0 [0]	33,411 [226]	144,781 [980]	0 [0]	55,685 [377]	423,206 [2,865]
Shire Japan K.K.	0 [0]	0 [0]	367,521 [2,488]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	367,521 [2,488]
Nihon Pharmaceutical Co., Ltd.	0 [0]	0 [0]	245,014 [1,659]	0 [0]	0 [0]	0 [0]	33,411 [226]	33,411 [226]	0 [0]	311,836 [2,111]
Nippon Chemiphar Co., Ltd.	0 [0]	167,055 [1,131]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	111,370 [754]	278,425 [1,885]
Ayumi Pharmaceutical Corporation	226,864 [1,536]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	226,864 [1,536]
Mylan Seiyaku Ltd.	0 [0]	206,240 [1,396]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	206,240 [1,396]
Kracie Holdings, Ltd.	0 [0]	30,936 [209]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	103,120 [698]	134,056 [908]
GlaxoSmithKline K.K.	111,370 [754]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	111,370 [754]
Minophagen Pharmaceutical Co.	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	110,440 [748]	0 [0]	110,440 [748]
Maruho Co., Ltd.	0 [0]	103,120 [698]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	103,120 [698]

Torii Pharmaceutical Co., Ltd.	0 [0]	0 [0]	51,130 [346]	0 [0]	0 [0]	0 [0]	0 [0]	51,130 [346]	0 [0]	102,260 [692]
EN Otsuka Pharmaceutical Co., Ltd. ^c	0 [0]	89,096 [603]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	89,096 [603]
Kaken Pharmaceutical Co., Ltd.	0 [0]	0 [0]	0 [0]	77,959 [528]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	77,959 [528]
Toray Industries, Inc.	0 [0]	0 [0]	0 [0]	77,080 [522]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	77,080 [522]
Santen Pharmaceutical Co., Ltd.	0 [0]	0 [0]	51,560 [349]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	51,560 [349]
Toyama Chemical Co., Ltd.	33,410 [226]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	0 [0]	33,410 [226]
Total	216,806,522 [1,467,884]	139,690,202 [945,770]	119,219,713 [807,175]	49,287,661 [333,701]	9,213,401 [62,379]	570,533 [3,863]	7,862,285 [53,231]	562,502 [3,808]	42,240,495 [285,988]	585,453,314 [3,963,800]

We converted Japanese yen (¥) to Pound Sterling (£), using the average monthly exchange rate for 2016, namely ¥147.7 yen per £1.

Supplementary Material 3. List of oncology drugs with Japanese domestic sales of at least ¥5 billion [£33.9 million] in 2016

Pharmaceutical company	Drug name	2016 Sales (Billion, ¥) [†]	2016 Sales (Million, £) [†]	Respirology	Gastroenterology	Hematology	Breast	Head and neck	Gynaecology	Urology	Dermatology	Other
Astellas Pharma Inc.	Enzalutamide	23.4	158.4	No	No	No	No	No	No	Yes	No	No
Chugai Pharmaceutical Co., Ltd.	Bevacizumab	92.1	623.6	Yes	Yes	No	Yes	Yes	Yes	No	No	No
Chugai Pharmaceutical Co., Ltd.	Trastuzumab	34.1	230.9	No	Yes	No	Yes	No	No	No	No	No
Chugai Pharmaceutical Co., Ltd.	Rituximab	32.1 [†]	217.3 [†]	No	No	Yes	No	No	No	No	No	No
Chugai Pharmaceutical Co., Ltd.	Capecitabine	12.3	83.3	No	Yes	No	Yes	No	No	No	No	No
Chugai Pharmaceutical Co., Ltd.	Pertuzumab	11.9	80.6	No	No	No	Yes	No	No	No	No	No
Chugai Pharmaceutical Co., Ltd.	Alectinib	11.9	80.6	Yes	No	No	No	No	No	No	No	No
Chugai Pharmaceutical Co., Ltd.	Erlotinib	11.5	77.9	Yes	Yes	No	No	No	No	No	No	No
Chugai Pharmaceutical Co., Ltd.	Trastuzumab Emtansine	8.3	56.2	No	No	No	Yes	No	No	No	No	No
Daiichi Sankyo Co., Ltd.	Denosumab	13.9	94.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Eisai Co., Ltd.	Eribulin	7.8	52.8	No	No	No	Yes	No	No	No	No	Yes
Eli Lilly Japan K.K.	Pemetrexed	37.3	252.5	Yes	No	No	No	No	No	No	No	No
Eli Lilly Japan K.K.	Ramucirumab	28.9	195.7	Yes	Yes	No	No	No	No	No	No	No
Nippon Boehringer Ingelheim Co., Ltd.	Afatinib	8.7	58.9	Yes	No	No	No	No	No	No	No	No
Novartis International AG	Imatinib	27.5	186.2	No	Yes	Yes	No	No	No	No	No	No
Novartis International AG	Nilotinib	20.7	140.1	No	No	Yes	No	No	No	No	No	No
Novartis International AG	Everolimus	15.1 [†]	102.2 [†]	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Ono Pharmaceutical Co., Ltd.	Nivolumab	103.9	703.5	Yes	No	Yes	No	Yes	No	Yes	Yes	No
Taiho Pharmaceutical Co., Ltd.	Tegafur/Gimer acil/Oteracil	26.9	182.1	Yes	Yes	No	Yes	Yes	No	No	No	No
Taiho Pharmaceutical Co., Ltd.	nab-Paclitaxel	20.7	140.1	Yes	Yes	No	Yes	No	No	No	No	No
Taiho Pharmaceutical Co., Ltd.	Calcium Folate	9.7	65.7	No	Yes	No	No	No	No	No	No	No
Taiho Pharmaceutical Co., Ltd.	Tegafur, Uracil	6.5	44.0	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No

Takeda Pharmaceutical Co., Ltd.	Leuprorelin	48.6 [†]	329 [†]	No	No	No	Yes	No	No	Yes	No	No
Takeda Pharmaceutical Co., Ltd.	Panitumumab	18.8	127.3	No	Yes	No	No	No	No	No	No	No
Yakult Honsha Co., Ltd.	Oxaliplatin	18.4	124.6	No	Yes	No	No	No	No	No	No	No

We converted Japanese yen (¥) to Pound Sterling (£), using the average monthly exchange rate for 2016, namely ¥147.7 yen per £1; A coverage under the Japanese National Health Insurance scheme in specific oncology subspecialty was considered by the end of the fiscal year of 2016 (March 31, 2017); [†] The sales includes that used for conditions other than cancer.

Supplementary Material 4. Newly-approved oncology drugs and drugs with added indications during the fiscal years of 2015 and 2016.

Pharmaceutical company	Drug name	Date of approval	Type of approval	Type of cancer
AstraZeneca plc	Vandetanib	September 28, 2015	New approval	Thyroid cancer
AstraZeneca plc	Osimertinib	March 28, 2016	New approval	Non-small cell lung cancer
Bayer Yakuhin, Ltd.	Sorafenib	February 29, 2016	Added indication	Thyroid cancer
Bayer Yakuhin, Ltd.	Radium 223	March 28, 2016	New approval	Prostate cancer
Bristol-Myers Squibb K.K.	Ipilimumab	July 3, 2015	New approval	Melanoma
Bristol-Myers Squibb K.K.	Paclitaxel	September 24, 2015	Added indication	Gastric cancer
Bristol-Myers Squibb K.K.	Elotuzumab	September 28, 2016	New approval	Multiple myeloma
Celgene Corporation	Lenalidomide	December 21, 2015	Added indication	Multiple myeloma
Celgene Corporation	Lenalidomide	March 2, 2017	Added indication	Adult T-cell leukemia
Chugai Pharmaceutical Co., Ltd.	Capecitabine	November 20, 2015	Added indication	Gastric cancer
Chugai Pharmaceutical Co., Ltd.	Bevacizumab	May 23, 2016	Added indication	Cervical cancer
Chugai Pharmaceutical Co., Ltd.	Capecitabine	August 26, 2016	Added indication	Rectal cancer

Eisai Co., Ltd.	Eribulin	February 29, 2016	Added indication	Sarcoma
Eli Lilly Japan K.K.	Ramucirumab	May 23, 2016	Added indication	Colorectal cancer
Eli Lilly Japan K.K.	Ramucirumab	June 20, 2016	Added indication	Non-small cell lung cancer
GlaxoSmithKline K.K.	Lapatinib	November 20, 2015	Added indication	Breast cancer
Janssen Pharmaceutical K.K.	Ibrutinib	March 28, 2016	New approval	Chronic lymphocytic leukemia
Janssen Pharmaceutical K.K.	Bortezomib	June 26, 2015	Added indication	Mantle cell lymphoma
Janssen Pharmaceutical K.K.	Ibrutinib	December 2, 2016	Added indication	Mantle cell lymphoma
Meiji Seika Pharma Co., Ltd.	Talaporfin	May 26, 2015	Added indication	Esophageal cancer
Minophagen Pharmaceutical Co.	Bexarotene	January 22, 2016	New approval	Cutaneous T cell lymphoma
MSD K.K.	Peginterferon Alfa-2b	May 26, 2015	Added indication	Melanoma
MSD K.K.	Pembrolizumab	September 28, 2016	New approval	Melanoma
MSD K.K.	Pembrolizumab	December 19, 2016	Added indication	Non-small cell lung cancer
Mylan Seiyaku Ltd.	Paclitaxel	September 24, 2015	Added indication	Gastric cancer
Nippon Kayaku Co., Ltd.	Paclitaxel	September 24, 2015	Added indication	Gastric cancer
Nippon Kayaku Co., Ltd.	Nogitecan	November 20, 2015	Added indication	Cervical cancer
Novartis Pharma K.K.	Panobinostat	July 3, 2015	New approval	Multiple myeloma

Novartis Pharma K.K.	Ruxolitinib	September 24, 2015	Added indication	Polycythemia vera
Novartis Pharma K.K.	Dabrafenib	March 28, 2016	New approval	Melanoma
Novartis Pharma K.K.	Trametinib	March 28, 2016	New approval	Melanoma
Novartis Pharma K.K.	Ceritinib	March 28, 2016	New approval	Non-small cell lung cancer
Novartis Pharma K.K.	Everolimus	August 26, 2016	Added indication	Neuro-endocrine tumor
Ono Pharmaceutical Co., Ltd.	Nivolumab	December 17, 2015	Added indication	Non-small cell lung cancer
Ono Pharmaceutical Co., Ltd.	Nivolumab	February 29, 2016	Added indication	Melanoma
Ono Pharmaceutical Co., Ltd.	Carfilzomib	July 4, 2016	New approval	Multiple myeloma
Ono Pharmaceutical Co., Ltd.	Nivolumab	August 26, 2016	Added indication	Renal cell cancer
Ono Pharmaceutical Co., Ltd.	Nivolumab	December 2, 2016	Added indication	Hodgkin lymphoma
Ono Pharmaceutical Co., Ltd.	Nivolumab	March 24, 2017	Added indication	Head and neck cancer
Otsuka Pharmaceutical Co., Ltd.	Ponatinib	September 28, 2016	New approval	Chronic myelogenous leukemia Acute lymphoblastic leukemia Multiple myeloma
Sanofi K.K.	Plerixafor	December 19, 2016	New approval	Non-Hodgkin lymphoma Hodgkin lymphoma
Sanofi K.K.	Aflibercept Beta	March 30, 2017	New approval	Colorectal cancer

Shionogi & Co., Ltd.	Cyclophosphamide	June 26, 2015	Added indication	Malignant lymphoma
Shionogi & Co., Ltd.	Prednisolone	June 26, 2015	Added indication	Malignant lymphoma
Taiho Pharmaceutical Co., Ltd.	Trabectedin	September 28, 2015	New approval	Sarcoma
Takeda Pharmaceutical Company Ltd.	Prednisolone	June 26, 2015	Added indication	Malignant lymphoma
Takeda Pharmaceutical Company Ltd.	Leuprorelin	September 28, 2015	New approval	Prostate cancer Breast cancer
Takeda Pharmaceutical Company Ltd.	Ixazomib	March 30, 2017	New approval	Multiple myeloma
Yakult Honsha Company, Limited.	Oxaliplatin	November 20, 2015	Added indication	Gastric cancer
