

Kyowa Hakko Kirin Co., Ltd.

Appendix to the Consolidated Financial Summary (IFRS) Fiscal 2018

(January 1, 2018 - December 31, 2018)

[•] These materials were made as a supplement to the Kessan Tanshin (Consolidated Financial Summary, IFRS), disclosed at the Tokyo Stock Exchange on February 5, 2019 for Fiscal 2018, from January 1, 2018 to December 31, 2018.

[•] This document is an English translation of parts of the Japanese-language original. The statements, including earnings forecasts, contained in these materials are based on the information currently available to the Company and on certain assumptions deemed to be reasonable by management. As such, they do not constitute guarantees by the Company of future performance. Actual results may differ materially from these projections for a wide variety of reasons.

[·] Figures presented in these materials have been rounded to the nearest tenth.

Figures inside parenthesis presented in these materials indicate negative values.

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The average exchange rates for each period were as follows:

Unit: Yen

		FY 2017				FY 2	2018		FY 2019
	results					forecasts			
	Jan - Mar Jan - Jun Jan - Sep Jan - Dec				Jan - Mar	Jan - Dec	Jan - Dec		
USD	115	113	112	112	110	109	109	110	110
EUR	122	122	124	126	134	132	131	131	130
GBP	143	142	142	144	152	151	149	148	145

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I . Consolidated Financial Results (IFRS)

1. Trends in consolidated profit

ROE (%)

Unit: Billions of yen <Accumulative> FY 2017 results FY 2018 results Change amount Jan - Dec latest forecasts % of Jan - Mar Jan - Jun Jan - Sep Jan - Dec Jan - Mar Jan - Jun Jan - Sep Jan - Dec forecasts Revenue 91.3 177.0 261.3 353.4 84.7 172.1 253.9 346.5 (6.8)335.0 103% Cost of sales (35.1) (66.0) (129.1) (31.0) (60.2)(119.3) 9.7 (114.0) 105% (96.3)(88.0) Gross profit 111.0 165.0 53.8 2.9 221.0 103% 56.2 224.3 112.0 166.0 227.2 Selling, general and administrative expenses (26.2) (54.2) (81.4) (113.0) (28.0) (57.7) (85.9) (119.8) (6.8) (117.0) 102% Research and development (24.3) (12.0)(35.8)(49.2)(10.9)(23.1)(34.4)(48.6)0.6 (49.5) 98% expenses Share of profit (loss) of (1.3) (2.4)(3.1) (4.5) 0.9 (0.1) 4.4 (0.5)19% 1.4 using equity method Core operating profit 16.8 30.1 44.7 57.7 16.2 32.1 45.9 58.7 1.0 54.0 109% 0.8 Other income 14.5 12.4 1.0 1.2 6.6 14.7 18.5 19.0 Other expenses (0.2) (2.1) (2.3)(8.4) (0.2)(0.7)(1.1)(3.5)4.8 Finance income (costs) (0.0) 0.0 0.2 (0.1) (0.3) (0.4) (0.5) (0.8) (0.6) Profit before tax 17.4 29.1 43.7 55.8 30.3 45.7 62.8 73.4 17.6 71.0 103% Income tax expense (5.4) (14.3) (13.0) (8.3) (11.4) (15.4) (19.0) (6.1) Profit 105% 12.0 20.3 29.5 42.9 22.0 34.3 47.4 54.4 11.5 52.0 EPS (¥/share) 21.96 37.18 53.83 78.38 40.20 62.61 86.62 21.02 94.99 99.40 Annual dividend (¥/share) 27.00 30.00 35.00 8.00 Dividend payout ratio (%) 34.4 35.2 0.8 31.6

<Quarterly> Unit: Billions of yen

7.2

		FY 2017	results				FY 2018 results	S	
	Jan - Mar	Apr - Jun	Jul - Sep	Oct - Dec	Jan - Mar	Apr - Jun	Jul - Sep	Oct - Dec	Change amount
Revenue	91.3	85.7	84.2	92.1	84.7	87.4	81.8	92.6	0.5
Cost of sales	(35.1)	(31.0)	(30.2)	(32.8)	(31.0)	(29.2)	(27.8)	(31.4)	1.4
Gross profit	56.2	54.7	54.0	59.3	53.8	58.2	54.0	61.2	1.9
Selling, general and administrative expenses	(26.2)	(28.0)	(27.2)	(31.6)	(28.0)	(29.7)	(28.2)	(33.9)	(2.3)
Research and development expenses	(12.0)	(12.4)	(11.5)	(13.3)	(10.9)	(12.2)	(11.4)	(14.2)	(0.8)
Share of profit (loss) of investments accounted for using equity method	(1.3)	(1.1)	(0.8)	(1.3)	1.4	(0.5)	(0.6)	(0.4)	0.9
Core operating profit	16.8	13.3	14.6	13.1	16.2	15.9	13.8	12.8	(0.3)
Other income	0.8	0.2	0.2	5.4	14.5	0.2	3.8	0.5	(4.9)
Other expenses	(0.2)	(1.8)	(0.2)	(6.1)	(0.2)	(0.5)	(0.4)	(2.4)	3.7
Finance income (costs)	(0.0)	0.0	0.2	(0.3)	(0.3)	(0.1)	(0.1)	(0.2)	0.1
Profit before tax	17.4	11.7	14.7	12.1	30.3	15.4	17.1	10.7	(1.5)
Income tax expense	(5.4)	(3.3)	(5.5)	1.3	(8.3)	(3.1)	(3.9)	(3.7)	(5.0)
Profit	12.0	8.3	9.1	13.4	22.0	12.3	13.1	7.0	(6.4)

^{* &}quot;Jan-Dec latest forecasts" represents pro forma forecasts of performance results for FY 2018, which were disclosed on October 30, 2018.



<Reclassified Table: Restated with the Bio-Chemicals Business Reclassified as Discontinued Operations> Unit: Billions of yen Change FY 2018 results FY 2019 forecasts amount Revenue 271.5 305.0 33.5 112% Gross profit 198.1 224.0 25.9 113% Core operating profit 50.3 53.0 2.7 105% Profit before tax (20.0)67.0 47.0 70% Profit from continuing operations 49.4 37.0 (12.4)75% Profit from discontinued operations 5.0 31.0 26.0 623% Profit 54.4 68.0 13.6 125% EPS (¥/share) 99 40 126 30 26.90 Annual dividend (¥/share) 35.00 40.00 5.00 Dividend payout ratio (%) 35.2 31.7 (3.5) ROE (%) 8.6 10.5 1.9

2. Revenue by geographic region

Unit: Billions of yen

			F	Y 2017 result	S			F	Y 2018 result	3		FY 2019 forecasts	
		Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Percentage of consolidated revenue	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Percentage of consolidated revenue	Jan - Dec	Percentage of consolidated revenue
Jap	an	60.5	120.6	178.8	240.9	68.2%	55.2	111.6	164.9	224.4	64.8%	185.5	60.8%
Inte	rnational	30.8	56.4	82.5	112.5	31.8%	29.5	60.5	89.0	122.1	35.2%	119.5	39.2%
	Americas	7.5	12.2	16.6	24.7	7.0%	6.7	15.6	21.6	31.9	9.2%	50.0	16.4%
	Europe	15.8	28.9	42.4	56.0	15.8%	15.1	28.7	42.7	56.1	16.2%	45.0	14.8%
	Asia	7.2	14.9	22.4	30.2	8.6%	7.5	15.8	24.0	33.4	9.7%	24.0	7.9%
	Others	0.3	0.4	1.0	1.6	0.5%	0.3	0.4	0.6	0.7	0.2%	0.5	0.2%
Tot	al consolidated revenue	91.3	177.0	261.3	353.4	100%	84.7	172.1	253.9	346.5	100%	305.0	100%

^{*} Revenue is classified by region or country based on location of customer.

^{*} In accordance with the Company's decision to transfer the shares of Kyowa Hakko Bio Co., Ltd., the Company plans to categorize the Bio-Chemicals business as discontinued operations effective the first three months of fiscal 2019 (January 1, 2019 to March 31, 2019). Accordingly, profit from discontinued operations on the consolidated statement of profit or loss is planned to be presented separately from the continuing operations.

Revenue, gross profit, core operating profit, and profit before tax in the above Reclassified Table show figures for continuing operations, which exclude discontinued operations.

Furthermore, profit from the Bio-Chemicals business (up to the first three months of fiscal 2019) and gains on sale and valuation of investments in Kyowa Hakko Bio Co., Ltd. (net of tax) have been included in profit from discontinuing The "FY 2018 results" after reclassification have not been audited by an auditing firm.

^{* &}quot;FY 2019 forecasts" shows figures for continuing operations and exclude discontinued operations. (The same applies on the following pages.)



3. Other trends

(1) Research and development expenses								Unit: Bil	lions of yen
	FY 2017 results				FY 2018 results				FY 2019 forecasts
	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Dec
Research and development (R&D) expenses	12.0	24.4	35.9	49.2	10.9	23.1	34.5	48.6	52.5
R&D expenses to revenue ratio	13.1%	13.8%	13.7%	13.9%	12.9%	13.4%	13.6%	14.0%	17.2%
Pharmaceuticals	11.3	22.8	33.6	46.1	10.2	21.6	32.3	45.7	52.5
R&D expenses to revenue ratio	15.6%	16.5%	16.5%	16.7%	15.3%	16.1%	16.3%	16.8%	17.2%
Bio-Chemicals	0.8	1.6	2.3	3.1	0.8	1.5	2.2	3.0	

(2) Capital expenditures (property, plant and equ	uipment)							Unit: Bil	lions of yen
		FY 2017 results					FY 2019 forecasts		
	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Dec
Capital expenditures	3.3	6.7	9.9	14.3	2.4	5.0	8.1	10.9	10.6
Pharmaceuticals	2.2	4.1	5.3	6.6	0.8	1.8	3.3	4.5	10.6
Bio-Chemicals	1.1	2.6	4.6	7.7	1.6	3.2	4.8	6.4	

(3) Depreciation and amortization (property, plant and equipment and intangible assets) Unit: Billion										
	FY 2017 results				FY 2018	3 results		FY 2019 forecasts		
	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Dec	
Depreciation and amortization	5.5	10.9	16.4	22.0	5.1	10.5	16.0	22.2	17.9	
Amortization of intangible assets	2.1	3.9	5.8	7.8	2.1	4.2	6.3	9.0	8.6	
Pharmaceuticals	3.9	7.5	11.4	15.3	3.8	7.7	11.7	16.2	17.9	
Amortization of intangible assets	2.1	3.8	5.7	7.7	2.1	4.2	6.2	8.9	8.6	
Bio-Chemicals	1.6	3.3	5.0	6.7	1.4	2.8	4.4	6.0		

II. Consolidated Statement of Cash Flows (IFRS)

Unit: Billions of yen

II. Consolidated Statement of Cash Fid	w5 (11 1	(3)						UIIII. DIII	iioris oi yeri
		FY 2017 results				FY 2018 results			
	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Jan - Mar	Jan - Jun	Jan - Sep	Jan - Dec	Change amount
Cash flows from operating activities	18.9	32.0	49.1	64.9	19.5	29.8	46.4	56.2	(8.7)
Cash flows from investing activities	(10.1)	(23.1)	(35.0)	(45.3)	(14.5)	(23.0)	(30.8)	(39.9)	5.3
Cash flows from financing activities	(6.7)	(6.9)	(13.9)	(18.3)	(8.3)	(8.4)	(16.5)	(16.5)	1.8
Effect of exchange rate changes on cash and cash equivalents	1.2	0.8	1.1	1.3	(0.1)	(0.6)	(0.4)	0.4	(1.0)
Net increase (decrease) in cash and cash equivalents	3.3	2.8	1.3	2.7	(3.5)	(2.2)	(1.3)	0.1	(2.6)
Transfer to assets held for sale	-	-	(0.0)	(1.1)	1.1	1.1	1.1	1.1	2.1
Cash and cash equivalents at beginning of period	13.1	13.1	13.1	13.1	14.7	14.7	14.7	14.7	1.6
Cash and cash equivalents at end of period*	16.4	15.8	14.4	14.7	12.3	13.6	14.5	15.9	1.2
* Cash reserves at end of period									
Cash and cash equivalents at end of period	16.4	15.8	14.4	14.7	12.3	13.6	14.5	15.9	1.2
+ Loans receivable from parent in excess of three months	120.0	128.0	135.2	143.2	168.0	172.4	179.6	181.3	38.1
+ Time deposits whose maturity periods exceed three months	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)
Cash reserves at end of period	136.4	143.8	149.6	157.9	180.3	186.0	194.1	197.2	39.3



III. Core Operating Profit or Loss by Segment (IFRS)

1. Pharmaceuticals segment (Continuing operations)

Unit: Billions of yen FY 2017 results FY 2018 results forecasts Jan - De Change % of Jan - Ma Jan - Jun Jan - Sep Jan - Dec Jan - Ma Jan - Jur Jan - De latest Jan - De 72.3 138.0 203.0 275.8 66.5 134.3 197.7 271.5 (4.3)262.0 104% 305.0 112% Revenue from external customers 72.1 137.5 202.3 274.8 66.2 133.8 196.9 270.4 (4.3)261.0 104% 305.0 1139 50.1 99.2 147.1 197.8 45.4 90.8 134.3 182.5 (15.4)181.0 101% 185.5 Japan 102% International 22.0 38.3 55.2 76.9 20.8 43.0 62.6 88.0 11.0 80.0 110% 119.5 136% International revenue ratio 28% 329 Americas 5.1 7.2 9.3 15.0 4.2 10.8 14.6 23.0 7.9 20.8 111% 50.0 218% Europe 12.4 21.7 31.4 41.5 11.5 21.5 31.8 42.3 8.0 39.8 106% 45.0 106% 19.6 10.5 16.2 22.5 2.9 18.8 120% Asia 4.3 9.2 14.1 4.9 24.0 107% 0.2 0.2 0.2 0.2 (0.6)0.6 28% Others 0.5 8.0 0.1 0.1 0.5 283% 0.2 0.5 0.7 1.0 0.3 0.6 8.0 1.0 107% Inter-segment revenue 1.1 0.1 Cost of sales (22.5)(40.6)(58.8)(79.1)(19.8)(37.0)(53.9)(73.4)5.7 (70.0)105% (81.0)1109 144.2 1.5 Gross profit 49.7 97.4 196.7 46.7 97.4 143.8 198.1 192.0 103% 224.0 1139 (22.1) (45.4) (102.1) (99.0)103% (117.5) Selling, general and administrative expenses (68.3)(95.5)(23.5)(48.3)(72.3)(6.6)115% (22.8)Research and development expenses (11.3)(33.6)(46.1)(10.2)(21.6)(32.3)(45.7)0.5 (46.5)98% (52.5)115% Share of profit (loss) of investments 4.4 20% (1.3)(2.4)(3.1)(4.5)1.4 0.9 0.3 (0.1)(0.5)(1.0)accounted for using equity method Core operating profit 15.1 26.8 39.2 50.5 14.4 28.4 39.5 50.3 (0.2)46.0 109% 53.0 105%

2. Bio-Chemicals segment (Discontinued operations)

Unit: Billions of yen FY 2019 FY 2017 results FY 2018 results forecasts Jan - De Change % of Jan - Mar Jan - Jun Jan - Sep Jan - Dec Jan - Ma Jan - Jur latest Jan - De % orecast 20.0 40.8 60.7 81.1 19.0 39.3 58.4 78.2 (2.9)76.0 103% Revenue from external customers 38.3 192 39.5 59.0 78 6 18.5 57.0 76.1 (2.5)74 0 103% 41.9 Japan 10.4 43.0 9.8 30.7 104% 21.4 31.7 20.7 (1.1)40.2 International 8.8 18.1 27.3 35.6 8.7 17.6 26.3 34.2 (1.4)33.8 101% International revenue ratio 46% 46% 45% Americas 2.5 5.0 7.4 9.7 2.5 4.8 7.1 (8.0)9.0 99% 8.9 89% Europe 3.4 7.2 11.0 14.4 3.6 7.2 11.0 13.8 (0.7)15.4 Asia 2.9 5.7 8.3 10.7 2.6 5.3 7.8 11.0 0.3 9.2 120% Others 0.1 0.2 0.5 0.8 0.1 0.3 0.5 0.6 (0.3)0.3 204% Inter-segment revenue 0.8 1.3 1.7 2.5 0.5 0.9 1.4 2.1 (0.4)2.0 106% Cost of sales (13.5)(27.2)(40.0)(53.3)(12.6)(25.0)(36.5)(49.3)4.1 (47.0)105% Gross profit 6.5 13.6 20.6 27.8 6.4 14.3 21.9 28.9 1.1 29.0 100% Selling, general and administrative expenses (4.2)(13.2)(17.6)(4.5)(13.7)(17.9)(0.3)(18.0)99% (8.8)(9.4)(0.7)(3.0)98% Research and development expenses (8.0)(1.6)(2.3)(3.1)(1.5)(2.2)(2.9)0.1 Core operating profit 3.2 5.2 7.2 1.2 6.0 8.1 0.9 102%

^{*} Revenue is classified by region or country based on location of customer.

^{*} The figures represent amounts before elimination of inter-segment transactions.

^{*} Revenue is classified by region or country based on location of customer.

^{*} The figures represent amounts before elimination of inter-segment transactions.



IV. Revenue from Main Products of Pharmaceuticals Segment (IFRS)

<Accumulative> Unit: Billions of yen FY 2019 FY 2017 results FY 2018 results Indication / Product name Change % of Jan - Sep Jan - Dec Jan - Mai % Jan - Mar Jan - Jun Jan - Sep Jan - De Jan - Jun latest Jan - De Renal anemia treatment drug 12.0 Nesp 12.5 26.6 41.0 56.3 25.6 39 2 53.7 (2.6)52.4 102% 48 4 90% Secondary hyperparathyroidism Regpara 4.6 9.4 13.9 18.5 3.6 7.8 10.7 13.3 (5.3)13.2 100% 5.1 38% Secondary hyperparathyroidism Orkedia 0.4 1.1 2.4 2.4 68% 9.5 397% Secondary hyperparathyroidism Rocaltrol 0.9 1.9 3.0 4.1 0.9 1.9 2.8 (0.3)107% 3.6 96% 3.8 3.5 Type-2 diabetes Onglyza 1.6 3.4 5.2 7.3 1.6 3.6 5.4 7.4 7.6 98% 7.6 102% 0.1 Cardiovascular (Hypertension & angina pectoris) 4.7 6.3 2.5 3.6 Coniel 1.6 3.2 1.2 4.8 (1.5)4.9 99% 3.9 81% Agent for decreasing the incidence of febrile neutropenia 12.8 18.1 9.5 14.8 20.7 20.1 103% 22.8 G-Lasta 3.8 8.2 4.3 2.6 110% Transdermal persistent pain 6.0 4.0 Fentos 1.3 2.9 4.3 1.2 2.6 5.4 (0.6)5.7 94% 4.8 89% Anticance Japan 1.9 Poteligeo 0.4 0.9 1.4 0.4 0.9 1.3 1.8 (0.1)1.8 100% 1.7 96% Anticance Rituximab BS [KHK] 135% 8.4 0.3 1.1 2.4 4.3 4.3 3.2 195% Chronic idiopathic thrombocytopenic purpura 3.4 Romiplate 0.8 1.6 2.5 0.7 1.5 2.4 3.2 (0.2)3.4 95% 136% Antiallergenic Allelock 5.6 9.1 12.2 15.9 4.6 7.5 9.7 12.6 (3.3)11.7 107% 9.3 74% Antiallergic eyedrops 11.5 Patanol 10.8 12 8 97 7 0 88 77 13.4 0.6 12.1 111% 11.3 84% Ulcerative colitis Asacol 1.0 2.1 3.2 4.2 0.7 1.5 2.2 2.9 (1.3)3.4 86% 2.2 77% Psoriasis vulgaris Dovobet 1.2 2.7 3.9 5.3 1.2 2.8 4.2 5.9 0.6 6.2 96% 7.8 132% Psoriasis 0.5 0.2 1.0 0.9 74% Lumicef 0.1 0.4 1.4 2.0 1.0 2.7 2.7 134% Parkinson's disease Nouriast 1.8 4.0 6.1 8.5 1.9 4.4 6.8 9.4 0.9 9.4 99% 10.0 107% Antiepileptic Depakene 1.6 3.2 4.8 6.5 1.3 2.7 4.0 5.3 (1.2) 99% 4.3 82% 0.8 20 15 22 60% Technology out-licensing 28 24 1 1 27 0.3 46 44 162% X-linked hypophosphatemia (XLH) Crysvita 8.0 3.2 7.7 7.7 Anticancei **POTELIGEO** 10.0 4789 Cancer pair Abstral 2.9 5.7 8.8 11.9 3.4 6.5 9.5 12.8 0.8 13.2 96% 12.3 96% Cancer pain 3.2 PecFent 1.1 2.0 3.1 4.1 1.0 2.0 4.4 0.4 5.2 85% 5.0 113% Chemotherapy-induced nausea and vomiting drug Sancuso 0.6 1.3 2.0 3.0 0.6 1.3 2.1 3.0 (0.0)2.8 107% 2.9 99% Opioid-induced constipation (OIC) 58% Moventig 0.2 0.3 0.5 0.8 0.3 0.6 1.0 0.6 174% 1.4 2.4 2.5 International Replacement therapy with testosterone for male hypogonadism Tostran/Fortesta 0.4 1.1 1.7 2.2 0.6 1.4 2.1 2.8 0.6 2.1 136% 1.9 68% Osteoporosis drug Adcal-D3 8.0 1.7 2.6 3.6 0.9 1.8 2.7 3.5 (0.1)3.3 104% 3.1 90% Anticancer Mitomycin-C 1.7 120% 0.8 1.6 2.5 3.4 0.6 1.3 2.3 (1.1)2.0 2.1 88% Renal anemia treatment drug Nesp 2.9 4.3 5.7 1.5 3.1 4.7 6.4 0.7 5.8 110% 5.9 93% 1.4 Secondary hyperparathyroidism 0.5 1.6 2.2 0.7 1.5 2.3 114% 1.1 1.0 2.8 Agent for decreasing the incidence of febrile neutropenia Neulasta/Peglasta 2.0 0.5 1.0 1.5 0.4 1.0 1.7 2.4 0.4 2.0 122% 4.2 173% Neutropenia treatment drug Gran 1.0 2.3 3.8 5.2 2.7 4.2 0.2 122% 104% 1.4 5.4 4.4 5.6 Technology out-licensing 8.0 9.5 10.8 16.0 12.4 13.9 15.8 (0.2)17.3 12.9

^{*} Revenue is classified as Japan or International (other than Japan) based on customer location

^{*} Revenue from main products does not include revenue from the Early Access Program (EAP).

^{*} FY 2019 forecasts for Nesp include revenue of authorized generics ("Darbepoetin Alfa Injection Syringe [KKK]") planned to start sales in the third quarter of fiscal 2019.

^{*} Revenue listed as "Technology out-licensing" specifies revenue from the upfront payment, milestone revenue, and running royalties revenue that are obtained based on licensing agreements recognizing the granting to third parties the rights for development, manufacturing and sales of the Group's pipeline compounds or the use of technology, etc.

IV. Revenue from Main Products of Pharmaceuticals Segment (IFRS)

<Quarterly> Unit: Billions of yen FY 2017 results FY 2018 results Indication / Product name Change Jul - Sep Jan - Mai Apr - Jun Jul - Sep Oct - Dec Jan - Mar Apr - Jun Oct - Dec Renal anemia treatment drug 14.4 15.3 12.0 <u>1</u>4.5 12.5 14.2 13.6 13.6 (8.0)Nesp Secondary hyperparathyroidism 4.5 Regpara 4.6 4.8 4.7 3.6 4.2 2.9 2.6 (2.1)Secondary hyperparathyroidism Orkedia 0.4 8.0 1.3 1.3 Secondary hyperparathyroidism Rocaltrol 0.9 1.0 1.0 1.1 0.9 1.0 0.9 1.0 (0.1)Type-2 diabetes 1.9 Onglyza 1.6 1.8 2.1 1.6 1.9 1.8 2.1 (0.0)Cardiovascular (Hypertension & angina pectoris) 1.6 1.6 1.5 1.6 1.2 1.3 1.2 1.1 (0.4)Agent for decreasing the incidence of febrile neutropenia 3.8 4.3 4.6 5.3 4.3 5.3 5.9 0.6 G-Lasta 5.1 Transdermal persistent pain 1.4 1.6 1.2 **Fentos** 1.3 1.6 1.4 1.4 1.4 (0.2)Anticancer Poteligeo 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 (0.0)Anticancer Rituximab BS [KHK] 0.3 8.0 1.3 1.8 1.8 Chronic idiopathic thrombocytopenic purpura Romiplate 8.0 0.9 8.0 0.9 0.7 8.0 8.0 0.9 (0.0)Antiallergenic Allelock 5.6 3.5 3.0 3.7 4.6 2.9 2.3 2.8 (0.9)Antiallergic eyedrops Patanol 7.0 1.8 1.9 2.1 7.7 2.0 1.7 1.9 (0.1)Ulcerative colitis 1.0 1.1 0.7 0.7 0.7 Asacol 1.1 1.1 8.0 (0.4)Psoriasis vulgaris Dovobet 1.2 1.4 1.2 1.4 1.2 1.6 1.4 1.7 0.3 Psoriasis Lumicef 0.1 0.1 0.3 0.4 0.4 0.5 0.5 0.6 0.2 Parkinson's disease 0.2 Nouriast 1.8 2.1 2.1 2.4 1.9 2.5 2.4 2.6 Antiepileptic Depakene 1.6 1.7 1.6 1.7 1.3 1.4 1.3 1.3 (0.3)(0.5)8.0 8.0 0.5 **Technology out-licensing** 1.2 1.1 0.4 8.0 1.0 X-linked hypophosphatemia (XLH) 8.0 2.4 4.5 Crysvita 4.5 Anticancer **POTELIGEO** 2.1 2.1 Cancer pain Abstral 2.9 2.8 3.1 3.4 3.1 3.1 0.1 Cancer pain PecFent 0.9 1.1 1.0 1.0 1.0 1.2 1.2 0.2 1.1 Chemotherapy-induced nausea and vomiting drug 0.6 0.7 0.7 1.0 0.6 0.7 8.0 0.9 (0.1)Opioid-induced constipation (OIC) Moventig 0.2 0.1 0.2 0.3 0.3 0.3 0.4 0.4 0.1 Internation Replacement therapy with testosterone for male hypogonadism Tostran/Fortesta 0.6 0.5 0.7 0.2 0.4 0.6 0.6 8.0 0.7 Osteoporosis drug Adcal-D3 8.0 0.9 0.9 1.0 0.9 0.9 0.9 8.0 (0.2)Anticancer Mitomycin-C 8.0 0.8 0.9 1.0 0.6 0.6 0.5 0.6 (0.4)Renal anemia treatment drug 1.5 1.5 1.3 1.5 Nesp 1.4 1.6 1.6 0.4 Secondary hyperparathyroidism 0.6 0.7 Regpara 0.5 0.5 0.6 8.0 0.9 0.9 0.3 Agent for decreasing the incidence of febrile neutropenia Neulasta/Peglasta 0.5 0.5 0.5 0.5 0.4 0.6 0.7 0.7 0.2 Neutropenia treatment drug Gran 1.0 1.3 1.5 1.3 1.4 1.5 1.2 1.3 (0.1)8.0 1.3 1.9 **Technology out-licensing** 1.6 5.2 5.9 (3.3)

^{*} Revenue is classified as Japan or International (other than Japan) based on customer location.

 $^{^{\}star}$ Revenue from main products does not include revenue from the Early Access Program (EAP).

^{*} Revenue listed as "Technology out-licensing" specifies revenue from the upfront payment, milestone revenue, and running royalties revenue that are obtained based on licensing agreements recognizing the granting to third parties the rights for development, manufacturing and sales of the Group's pipeline compounds or the use of technology, etc.



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Area		Code Name Generic Name Formulation	Mechanism of Action	Indication	Stage	In-House or Licensed	Remarks
Nephrology	3	KRN321 Darbepoetin Alfa	Long-Acting Erythropoiesis	Renal Anemia (on Dialysis)	NDA in preparation in CN	Kirin-Amgen	
мертноюду	Ø.	Injection	Stimulating Agent	Renal Anemia	Filed in ID	Killi-Alligen	
Oncology	Y	KW-0761 Mogamulizumab Injection	Anti-CCR4 Humanized Antibody	Mycosis Fungoides and Sézary Syndrome	Approved in EU	In-House	POTELLIGENT [®]
					Filed in KR		
Immunology/A	\ //	KHK4827 Brodalumab	Anti-IL-17 Receptor A	Psoriasis	Filed in SG	Kirin Amana	
llergy	1	Injection	Fully Human Antibody	Psonasis	Filed in MY	Kirin-Amgen	
					Filed in HK		
Central Nervous System	×	KW-6002 Istradefylline Oral	Adenosine A _{2A} Receptor Antagonist	Parkinson's Disease	NDA in preparation in US	In-House	
					Approved in CA		
	•	©KRN23 Burosumab	Anti-FGF23 Fully	X-linked	Filed in IL	In-House	Human Antibody-Producing Technology Jointly Developed with Ultragenyx in US
Other	.M.	Injection	Human Antibody	Hypophosphatemia (XLH)	Filed in CH	III-House	and EU
Other					Filed in AE		
	*	AMG531 Romiplostim Injection	Thrombopoietin Receptor Agonist	Aplastic Anemia	Filed in JP	Kirin-Amgen	

Phase	Π	Phase	Ш
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Phase Ⅱ, F	Hase						
Area		Code Name Generic Name Formulation	Mechanism of Action	Indication	Stage	In-House or Licensed	Remarks
	茶	⊚RTA 402 Bardoxolone Methyl Oral	Antioxidant Inflammation Modulator	Diabetic Kidney Disease	Phase Ⅲ in JP	Licensed from Reata	
Nephrology	*	KHK7580 Evocalcet Oral	Calcium Receptor Agonist	Hypercalcemia In Patients With Parathyroid Carcinoma or Primary Hyperparathyroidism	Phase Ⅲ in JP	Licensed from Mitsubishi Tanabe Pharma	
Oncology	济	©KHK2375 Entinostat Oral	HDAC Inhibitor	Breast Cancer	Phase Ⅱ in JP	Syndax	
Oncology	1	KW-0761 Mogamulizumab Injection	Anti-CCR4 Humanized Antibody	Adult T-cell Leukemia/Lymphoma	Phase Ⅱ in US, EU and others	In-House	POTELLIGENT [®]
	Y	⊚KHK4083	Anti-OX40 Fully Human	Ulcerative Colitis	Phase Ⅱ in US, EU and others	In-House	POTELLIGENT [®]
		Injection	Antibody	Atopic Dermatitis	Phase Ⅱ in JP, US, CA and EU	III-I louse	Human Antibody-Producing Technology
Immunology/A	\	KHK4563 Benralizumab	Anti-IL-5 Receptor	Chronic Obstructive Pulmonary Disease (COPD)	Phase Ⅲ in JP	In-House	POTELLIGENT® Jointly Developed with AstraZeneca/MedImmune
llergy		Injection	Humanized Antibody	Eosinophilic Chronic Rhinosinusitis (ECRS)	Phase ∏ in JP		
	~	KHK4827 Brodalumab Injection	Anti-IL-17 Receptor A Fully Human Antibody	Axial Spondyloarthritis (axSpA)	Phase Ⅲ in JP, KR and TW	Kirin-Amgen	
	1		Anti-CD40 Fully Human Antibody	Recurrence of Focal Segmental Glomerulosclerosis (FSGS) in <i>de</i> <i>novo</i> kidney transplant recipients	Phase Ⅱ in US	In-House	Human Antibody-Producing Technology Jointly Developed with Astellas
Central Nervous	Y	KW-0761 Mogamulizumab Injection	Anti-CCR4 Humanized Antibody	HTLV-1 associated myelopathy (HAM)	Phase Ⅲ in JP	In-House	POTELLIGENT [®]
System	济	©KW-6356 Oral	Adenosine A _{2A} Receptor Antagonist	Parkinson's Disease	Phase	In-House	
				X-linked Hypophosphatemia (XLH) in adult patients	Phase Ⅲ in US, CA, EU, JP and KR		
	Y	©KRN23 Burosumab Injection	Anti-FGF23 Fully Human Antibody	X-linked Hypophosphatemia (XLH) in pediatric patients	Phase Ⅲ in US, CA, EU, AU, JP and KR	In-House	Human Antibody-Producing Technology Jointly Developed with Ultragenyx in US and EU
Other				Tumor Induced Osteomalacia(TIO)/Epidermal Nevus Syndrome (ENS)	Phase ∏ in US Phase ∏ in JP and KR		
	c/o	AMG531	Thrombopoietin	Aplastic Anemia	Phase Ⅱ/Ⅲ in KR		
	**	Romiplostim Injection	Receptor Agonist	Idiopathic (Immune) Thrombocytopenic Purpura	Phase Ⅲ in CN	Kirin-Amgen	





Ph I Code Name	"	<u> </u>	In-House	As of Dec. 31, 2018	1
Code Name			In-House		Ĺ

Area		Code Name Generic Name Formulation	Mechanism of Action	Indication	Stage	In-House or Licensed	Remarks
Oncology	×	©KHK2455 Oral	IDO1 Inhibitor	Solid Tumor	Phase I in US	In-House	Combination with KW-0761
	~	⊚KHK2823 Injection	Anti-CD123 Fully Human Antibody	Cancer	Phase I in UK	In-House	POTELLIGENT® Human Antibody-Producing Technology
	~	KW-0761 Mogamulizumab Injection	Anti-CCR4 Humanized Antibody	Solid Tumor	Phase I / II in US	In-House	POTELLIGENT®
							Combination with Nivolumab (Jointly Developed with Bristol-Myers Squibb)
Immunology/ Allergy	~	⊚KHK4083 Injection	Anti-OX40 Fully Human Antibody	Ulcerative Colitis	Phase I in JP	In-House	POTELLIGENT® Human Antibody-Producing Technology
	1	KHK4827 Brodalumab Injection	Anti-IL-17 Receptor A Fully Human Antibody	Autoimmune Disease	Phase I in JP	Kirin-Amgen	
Central Nervous System	Y	©KHK6640 Injection	Anti–Amyloid Beta Peptide Antibody	Alzheimer's Disease	Phase I in EU	Licensed from Immunas Pharma	
					Phase I in JP		
Others	8	KW-3357 Antithrombin Gamma Injection	Recombinant Human Antithrombin	Disseminated Intravascular Coagulation, Congenital Antithrombin Deficiency	Phase I in EU	In-House	

Updated since Sep. 30, 2018 (Area, Stage, Filed, Approved, etc.)

New Molecular Entity

Updated since Sep. 30, 2018 (Area, Stage, Filed, Approved, etc.)

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Area		Code Name Generic Name Formulation	Mechanism of Action	Indication	Stage	In-House or Licensed	Remarks
Oncology	*	KW-0761 Mogamulizumab Injection	Anti-CCR4 Humanized Antibody	Mycosis Fungoides and Sézary Syndrome	Approved in EU	In-House	POTELLIGENT [®]
Other	*	⊚KRN23 Burosumab Injection	Anti-FGF23 Fully Human Antibody	X-linked Hypophosphatemia (XLH)	Approved in CA	In-House	Human Antibody-Producing Technology Jointly Developed with Ultragenyx in US and EU
					Filed in IL		
					Filed in CH		
					Filed in AE		
Immunology/ Allergy	4	⊚KHK4083 Injection	Anti-OX40 Fully Human Antibody	Atopic Dermatitis	Phase II in JP, US, CA and EU	In-House	POTELLIGENT [®] Human Antibody-Producing Technology



< Appendix > Fujifilm Kyowa Kirin Biologics co. Ltd., Pipeline of Biosimilar

As of December 31th 2018

Code Name	Generic Name	Stage	Remarks	
FKB327	Adalimumab (fully human anti-TNF-α monoclonal antibody)	Launched in EU (partnership with Mylan) NDA in preparation in Others	Fujifilm Kyowa Kirin Biologics Co., Ltd.	
FKB238	Bevacizumab (humanized anti-VEGF monoclonal antibody)	Phase Ⅲ in US, Europe and others	Centus Biotherapeutics Ltd.(*)	

^{*} Centus Biotherapeutics Ltd. is a fifty-fifty joint venture between Fujifilm Kyowa Kirin Biologics Co., Ltd. and AstraZeneca.