

Supplementary Materials for  
Consolidated Financial Results for  
the 1st Quarter of Fiscal Year 2019. 12 (IFRS)

Innovation all for the patients



CHUGAI PHARMACEUTICAL CO., LTD.



A member of the Roche group

- Notes: 1. Portions of this report that refer to performance forecasts or any other future events are believed to be reasonable under information available at the time of the forecasts. Actual results may materially differ from these forecasts due to potential risks and
2. Amounts shown in this report are rounded to the nearest 0.1 billion yen. Variance and % are calculated based on the amounts shown.
3. Exchange rates used for each period are as follows.

### QTR

(Yen)

		Actual*				Actual*			
		FY2018				FY2019			
		1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12
		QTR	QTR	QTR	QTR	QTR	QTR	QTR	QTR
CHF		114.33	110.77	113.32	113.33	110.52			
EUR		133.17	130.06	129.66	128.72	125.17			
USD		108.40	109.08	111.47	112.84	110.18			
SGD		82.16	81.78	81.51	82.04	81.32			

\*Market average exchange rate

### YTD

	Actual*	Actual*				Actual*				Assumption
	FY2017	FY2018				FY2019				FY2019
	1-12	1-3	1-6	1-9	1-12	1-3	1-6	1-9	1-12	1-12
	Full-year	YTD	YTD	YTD	Full-year	YTD	YTD	YTD	Full-year	Full-year
CHF	113.90	114.33	112.52	112.79	112.92	110.52				114.00
EUR	126.39	133.17	131.59	130.93	130.36	125.17				128.00
USD	112.17	108.40	108.74	109.65	110.45	110.18				111.00
SGD	81.22	82.16	81.97	81.81	81.87	81.32				82.00

\*Market average exchange rate

### Period-end

	Actual*	Actual*				Actual*			
	FY2017	FY2018				FY2019			
	31 Dec.	31 Mar.	30 Jun.	30 Sep.	31 Dec.	31 Mar.	30 Jun.	30 Sep.	31 Dec.
CHF	115.35	111.67	110.78	116.01	112.03	111.11			
EUR	134.82	131.49	127.83	131.98	126.13	124.15			
USD	112.89	106.83	110.50	113.38	110.28	110.64			
SGD	84.39	81.43	80.79	82.88	80.70	81.56			

**Reconciliation of IFRS results to Core results**

(Billions of yen)

	FY2018				FY2019			
	1-3				1-3			
	IFRS results	Intangible assets	Others	Core results	IFRS results	Intangible assets	Others	Core results
Revenues	147.4	-	-	147.4	154.3	-	-	154.3
Sales	124.7	-	-	124.7	137.7	-	-	137.7
Royalties and other operating income	22.7	-	-	22.7	16.6	-	-	16.6
Cost of sales	(63.8)	0.3	-	(63.5)	(63.9)	0.2	-	(63.7)
Gross profit	83.6	0.3	-	83.9	90.4	0.2	-	90.6
Operating expenses	(45.2)	4.1	-	(41.1)	(44.3)	1.6	-	(42.7)
Marketing and distribution	(15.9)	-	-	(15.9)	(15.4)	-	-	(15.4)
Research and development	(25.1)	4.1	-	(20.9)	(25.1)	1.6	-	(23.6)
General and administration	(4.3)	-	-	(4.3)	(3.7)	-	-	(3.7)
Operating profit	38.4	4.4	-	42.8	46.1	1.8	-	47.9
Financing costs	(0.0)	-	-	(0.0)	(0.0)	-	-	(0.0)
Other financial income (expense)	(0.1)	-	-	(0.1)	0.2	-	-	0.2
Other expense	(0.6)	-	-	(0.6)	(0.8)	-	-	(0.8)
Profit before taxes	37.7	4.4	-	42.1	45.4	1.8	-	47.2
Income taxes	(9.5)	(1.4)	-	(10.9)	(10.4)	(0.5)	-	(10.9)
Net income	28.2	3.1	-	31.2	35.0	1.2	-	36.3
Attributable to								
Chugai shareholders	27.9	3.1	-	31.0	35.0	1.2	-	36.3
Non-controlling interests	0.3	-	-	0.3	-	-	-	-

**Core results**

Chugai discloses its results on a Core basis from 2013 in conjunction with its decision to apply IFRS. Core results are the results after adjusting non-Core items to IFRS results, and are consistent with the Core concept disclosed by Roche. Core results are used by Chugai as an internal performance indicator, for explaining the underlying business performance both internally and externally, and as the basis for payment-by-results such as a return to shareholders.

The table above shows the reconciliation of IFRS results into Core results. The detail is as below.

**Intangible assets**

Amortization (0.4 billion yen in 2018 and 0.3 billion yen in 2019)

Impairment (4.1 billion yen in 2018 and 1.5 billion yen in 2019)

## IFRS results (QTR)

(Billions of yen)

	Actual				Actual							
	FY2018				FY2019							
	1-3	4-6	7-9	10-12	1-3	Change (%)	4-6	Change (%)	7-9	Change (%)	10-12	Change (%)
	QTR	QTR	QTR	QTR	QTR		QTR		QTR		QTR	
Revenues	147.4	137.7	141.3	153.3	154.3	+4.7						
Sales	124.7	130.8	133.1	139.1	137.7	+10.4						
Domestic	92.9	98.3	99.6	109.2	99.3	+6.9						
Overseas	31.9	32.6	33.5	30.0	38.4	+20.4						
Royalties and other operating income	22.7	6.8	8.2	14.2	16.6	(26.9)						
Royalty and profit-sharing income	5.0	5.1	5.7	8.3	13.7	+174.0						
Other operating income	17.7	1.8	2.5	5.9	2.9	(83.6)						
Cost of sales	(63.8)	(65.2)	(65.9)	(67.8)	(63.9)	+0.2						
(% of Sales)	51.2	49.8	49.5	48.7	46.4	-						
Gross profit	83.6	72.5	75.4	85.5	90.4	+8.1						
(% of Revenues)	56.7	52.7	53.4	55.8	58.6	-						
Operating expenses	(45.2)	(44.2)	(44.0)	(59.1)	(44.3)	(2.0)						
(% of Revenues)	30.7	32.1	31.1	38.6	28.7	-						
Marketing and distribution	(15.9)	(17.3)	(17.2)	(23.3)	(15.4)	(3.1)						
(% of Revenues)	10.8	12.6	12.2	15.2	10.0	-						
Research and development	(25.1)	(23.5)	(22.3)	(28.3)	(25.1)	0.0						
(% of Revenues)	17.0	17.1	15.8	18.5	16.3	-						
General and administration	(4.3)	(3.5)	(4.4)	(7.5)	(3.7)	(14.0)						
(% of Revenues)	2.9	2.5	3.1	4.9	2.4	-						
Operating profit	38.4	28.2	31.3	26.4	46.1	+20.1						
(% of Revenues)	26.1	20.5	22.2	17.2	29.9	-						
Financing costs	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	0.0						
Other financial income (expense)	(0.1)	0.1	(0.1)	0.5	0.2	-						
Other expense	(0.6)	(0.9)	(0.6)	(1.1)	(0.8)	+33.3						
Profit before taxes	37.7	27.3	30.6	25.8	45.4	+20.4						
(% of Revenues)	25.6	19.8	21.7	16.8	29.4	-						
Income taxes	(9.5)	(6.4)	(8.8)	(3.6)	(10.4)	+9.5						
Net income	28.2	20.9	21.8	22.2	35.0	+24.1						
(% of Revenues)	19.1	15.2	15.4	14.5	22.7	-						
Attributable to												
Chugai shareholders	27.9	20.8	21.7	22.1	35.0	+25.4						
Non-controlling interests	0.3	0.1	0.2	0.1	-	-						
Earnings per share												
Basic (yen)	51.00	38.00	39.60	40.48	64.01	+25.5						
Diluted (yen)	50.91	37.94	39.54	40.41	63.91	+25.5						

Other financial income (expense) includes net amount of FX related gains/losses.

"Sales of Tamiflu", which was disclosed separately up to FY 2018, is included in "Sales of Domestic" from the first quarter in FY 2019.

"Royalties and other operating income" is disclosed separately as "Royalty and profit-sharing income" and "Other operating income" from the first quarter in FY 2019.

## IFRS results (YTD)

(Billions of yen)

	Actual	Actual				Actual							
	FY2017	FY2018				FY2019							
	1-12	1-3	1-6	1-9	1-12	1-3	Change	1-6	Change	1-9	Change	1-12	Change
	YTD	YTD	YTD	YTD	YTD	YTD	(%)	YTD	(%)	YTD	(%)	YTD	(%)
Revenues	534.2	147.4	285.1	426.4	579.8	154.3	+4.7						
Sales	499.3	124.7	255.6	388.7	527.8	137.7	+10.4						
Domestic	405.3	92.9	191.1	290.8	400.0	99.3	+6.9						
Overseas	94.0	31.9	64.5	97.9	127.9	38.4	+20.4						
Royalties and other operating income	34.9	22.7	29.5	37.7	51.9	16.6	(26.9)						
Royalty and profit-sharing income	17.2	5.0	10.1	15.8	24.1	13.7	+174.0						
Other operating income	17.7	17.7	19.5	21.9	27.9	2.9	(83.6)						
Cost of sales	(254.2)	(63.8)	(129.1)	(195.0)	(262.8)	(63.9)	+0.2						
(% of Sales)	50.9	51.2	50.5	50.2	49.8	46.4	-						
Gross profit	280.0	83.6	156.1	231.4	316.9	90.4	+8.1						
(% of Revenues)	52.4	56.7	54.8	54.3	54.7	58.6	-						
Operating expenses	(181.1)	(45.2)	(89.5)	(133.5)	(192.6)	(44.3)	(2.0)						
(% of Revenues)	33.9	30.7	31.4	31.3	33.2	28.7	-						
Marketing and distribution	(72.8)	(15.9)	(33.2)	(50.4)	(73.7)	(15.4)	(3.1)						
(% of Revenues)	13.6	10.8	11.6	11.8	12.7	10.0	-						
Research and development	(92.9)	(25.1)	(48.5)	(70.9)	(99.2)	(25.1)	0.0						
(% of Revenues)	17.4	17.0	17.0	16.6	17.1	16.3	-						
General and administration	(15.3)	(4.3)	(7.8)	(12.2)	(19.7)	(3.7)	(14.0)						
(% of Revenues)	2.9	2.9	2.7	2.9	3.4	2.4	-						
Operating profit	98.9	38.4	66.6	97.9	124.3	46.1	+20.1						
(% of Revenues)	18.5	26.1	23.4	23.0	21.4	29.9	-						
Financing costs	(0.1)	(0.0)	(0.1)	(0.1)	(0.1)	(0.0)	0.0						
Other financial income (expense)	(0.1)	(0.1)	0.0	(0.1)	0.4	0.2	-						
Other expense	(1.7)	(0.6)	(1.5)	(2.1)	(3.2)	(0.8)	+33.3						
Profit before taxes	97.0	37.7	65.0	95.6	121.4	45.4	+20.4						
(% of Revenues)	18.2	25.6	22.8	22.4	20.9	29.4	-						
Income taxes	(23.5)	(9.5)	(15.9)	(24.8)	(28.4)	(10.4)	+9.5						
Net income	73.5	28.2	49.0	70.9	93.1	35.0	+24.1						
(% of Revenues)	13.8	19.1	17.2	16.6	16.1	22.7	-						
Attributable to													
Chugai shareholders	72.7	27.9	48.7	70.3	92.5	35.0	+25.4						
Non-controlling interests	0.8	0.3	0.4	0.5	0.6	-	-						
Earnings per share													
Basic (yen)	133.04	51.00	89.00	128.60	169.08	64.01	+25.5						
Diluted (yen)	132.83	50.91	88.85	128.39	168.80	63.91	+25.5						

Other financial income (expense) includes net amount of FX related gains/losses.

"Sales of Tamiflu", which was disclosed separately up to FY 2018, is included in "Sales of Domestic" from the first quarter in FY 2019.

"Royalties and other operating income" is disclosed separately as "Royalty and profit-sharing income" and "Other operating income" from the first quarter in FY 2019.

## Core results (QTR)

(Billions of yen)

	Actual				Actual							
	FY2018				FY2019							
	1-3	4-6	7-9	10-12	1-3	Change (%)	4-6	Change (%)	7-9	Change (%)	10-12	Change (%)
	QTR	QTR	QTR	QTR	QTR		QTR		QTR		QTR	
Revenues	147.4	137.7	141.3	153.3	154.3	+4.7						
Sales	124.7	130.8	133.1	139.1	137.7	+10.4						
Domestic	92.9	98.3	99.6	109.2	99.3	+6.9						
Overseas	31.9	32.6	33.5	30.0	38.4	+20.4						
Royalties and other operating income	22.7	6.8	8.2	14.2	16.6	(26.9)						
Royalty and profit-sharing income	5.0	5.1	5.7	8.3	13.7	+174.0						
Other operating income	17.7	1.8	2.5	5.9	2.9	(83.6)						
Cost of sales	(63.5)	(65.1)	(65.7)	(67.6)	(63.7)	+0.3						
(% of Sales)	50.9	49.8	49.4	48.6	46.3	-						
Gross profit	83.9	72.6	75.6	85.8	90.6	+8.0						
(% of Revenues)	56.9	52.7	53.5	56.0	58.7	-						
Operating expenses	(41.1)	(43.8)	(44.0)	(58.7)	(42.7)	+3.9						
(% of Revenues)	27.9	31.8	31.1	38.3	27.7	-						
Marketing and distribution	(15.9)	(17.3)	(17.2)	(23.3)	(15.4)	(3.1)						
(% of Revenues)	10.8	12.6	12.2	15.2	10.0	-						
Research and development	(20.9)	(23.0)	(22.3)	(27.9)	(23.6)	+12.9						
(% of Revenues)	14.2	16.7	15.8	18.2	15.3	-						
General and administration	(4.3)	(3.5)	(4.4)	(7.5)	(3.7)	(14.0)						
(% of Revenues)	2.9	2.5	3.1	4.9	2.4	-						
Operating profit	42.8	28.8	31.6	27.1	47.9	+11.9						
(% of Revenues)	29.0	20.9	22.4	17.7	31.0	-						
Financing costs	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	0.0						
Other financial income (expense)	(0.1)	0.1	(0.1)	0.5	0.2	-						
Other expense	(0.6)	(0.9)	(0.6)	(1.1)	(0.8)	+33.3						
Profit before taxes	42.1	28.0	30.9	26.5	47.2	+12.1						
(% of Revenues)	28.6	20.3	21.9	17.3	30.6	-						
Income taxes	(10.9)	(6.6)	(8.9)	(3.8)	(10.9)	0.0						
Net income	31.2	21.3	22.0	22.7	36.3	+16.3						
(% of Revenues)	21.2	15.5	15.6	14.8	23.5	-						
Attributable to												
Chugai shareholders	31.0	21.2	21.8	22.6	36.3	+17.1						
Non-controlling interests	0.3	0.1	0.2	0.1	-	-						
Core earnings per share (diluted) (yen)	56.52	38.75	39.87	41.28	66.15	+17.0						

Please see page 1 "Reconciliation of IFRS results to Core results" for the detail of the adjustments.

Core earnings per share (diluted) (yen) : Net income attributable to Chugai shareholders / Weighted average number of shares in issue used to calculate diluted earnings per share.

Other financial income (expense) includes net amount of FX related gains/losses.

"Sales of Tamiflu", which was disclosed separately up to FY 2018, is included in "Sales of Domestic" from the first quarter in FY 2019.

"Royalties and other operating income" is disclosed separately as "Royalty and profit-sharing income" and "Other operating income" from the first quarter in FY 2019.

## Core results (YTD)

(Billions of yen)

	Actual	Actual				Actual								Forecast (Jan 31st announced)	
	FY2017	FY2018				FY2019								FY2019	
	1-12	1-3	1-6	1-9	1-12	1-3	Change (%)	1-6	Change (%)	1-9	Change (%)	1-12	Change (%)	1-12	Change (%)
	YTD	YTD	YTD	YTD	YTD	YTD		YTD		YTD		YTD		YTD	
Revenues	534.2	147.4	285.1	426.4	579.8	154.3	+4.7							592.5	+2.2
Sales	499.3	124.7	255.6	388.7	527.8	137.7	+10.4							528.0	0.0
Domestic	405.3	92.9	191.1	290.8	399.9	99.3	+6.9							389.1	(2.7)
Overseas	94.0	31.9	64.5	97.9	127.9	38.4	+20.4							138.9	+8.6
Royalties and other operating income	34.9	22.7	29.5	37.7	51.9	16.6	(26.9)							64.5	+24.3
Royalty and profit-sharing income	17.2	5.0	10.1	15.8	24.1	13.7	+174.0							53.5	+122.0
Other operating income	17.7	17.7	19.5	21.9	27.9	2.9	(83.6)							11.0	(60.6)
Cost of sales	(252.9)	(63.5)	(128.6)	(194.3)	(261.9)	(63.7)	+0.3							(252.5)	(3.6)
(% of Sales)	50.7	50.9	50.3	50.0	49.6	46.3	-							47.8	-
Gross profit	281.3	83.9	156.6	232.1	317.9	90.6	+8.0							340.0	+7.0
(% of Revenues)	52.7	56.9	54.9	54.4	54.8	58.7	-							57.4	-
Operating expenses	(178.1)	(41.1)	(84.9)	(128.9)	(187.6)	(42.7)	+3.9							(197.0)	+5.0
(% of Revenues)	33.3	27.9	29.8	30.2	32.4	27.7	-							33.2	-
Marketing and distribution	(72.8)	(15.9)	(33.2)	(50.4)	(73.7)	(15.4)	(3.1)								
(% of Revenues)	13.6	10.8	11.6	11.8	12.7	10.0	-								
Research and development	(88.9)	(20.9)	(44.0)	(66.3)	(94.2)	(23.6)	+12.9							(102.0)	+8.3
(% of Revenues)	16.6	14.2	15.4	15.5	16.2	15.3	-							17.2	-
General and administration	(16.3)	(4.3)	(7.8)	(12.2)	(19.7)	(3.7)	(14.0)								
(% of Revenues)	3.1	2.9	2.7	2.9	3.4	2.4	-								
Operating profit	103.2	42.8	71.6	103.3	130.3	47.9	+11.9							143.0	+9.7
(% of Revenues)	19.3	29.0	25.1	24.2	22.5	31.0	-							24.1	-
Financing costs	(0.1)	(0.0)	(0.1)	(0.1)	(0.1)	(0.0)	0.0								
Other financial income (expense)	(0.1)	(0.1)	0.0	(0.1)	0.4	0.2	-								
Other expense	(1.7)	(0.6)	(1.5)	(2.1)	(3.2)	(0.8)	+33.3								
Profit before taxes	101.3	42.1	70.1	101.0	127.5	47.2	+12.1								
(% of Revenues)	19.0	28.6	24.6	23.7	22.0	30.6	-								
Income taxes	(24.5)	(10.9)	(17.5)	(26.4)	(30.2)	(10.9)	0.0								
Net income	76.7	31.2	52.6	74.6	97.3	36.3	+16.3								
(% of Revenues)	14.4	21.2	18.4	17.5	16.8	23.5	-								
Attributable to															
Chugai shareholders	75.9	31.0	52.2	74.0	96.7	36.3	+17.1								
Non-controlling interests	0.8	0.3	0.4	0.6	0.6	-	-								
Weighted average number of shares in issue used to calculate d	547.0	548.0	548.0	548.0	548.0	548	0.0								
Core earnings per share (diluted) (yen)	138.68	56.52	95.27	135.14	176.42	66.15	+17.0							198.00	+12.2
Core payout ratio (%)	44.7				48.7									48.5	-
Dividend per share (Full year) (yen)	62				86									96	-
Dividend per share (Half year) (yen)	29				31									48	-

Please see page 1 "Reconciliation of IFRS results to Core results" for the detail of the adjustments.

Core earnings per share (diluted) (yen) : Net income attributable to Chugai shareholders / Weighted average number of shares in issue used to calculate diluted earnings per share.

Other financial income (expense) includes net amount of FX related gains/losses.

"Sales of Tamiflu", which was disclosed separately up to FY 2018, is included in "Sales of Domestic" from the first quarter in FY 2019.

"Royalties and other operating income" is disclosed separately as "Royalty and profit-sharing income" and "Other operating income" from the first quarter in FY 2019.

## Statements of revenues (QTR)

(Billions of yen)

	Actual FY2018				Actual FY2019							
	1-3	4-6	7-9	10-12	1-3	Change	4-6	Change	7-9	Change	10-12	Change
	QTR	QTR	QTR	QTR	QTR	(%)	QTR	(%)	QTR	(%)	QTR	(%)
<b>Sales</b>	124.7	130.8	133.1	139.1	137.7	+10.4						
<b>Domestic</b>	92.9	98.3	99.6	109.1	99.3	+6.9						
<b>Oncology</b>	48.6	57.0	57.7	62.3	52.0	+7.0						
Avastin	21.0	24.4	24.1	26.1	21.4	+1.9						
Alecensa	4.0	5.4	5.3	5.9	4.9	+22.5						
Herceptin	6.8	7.0	6.8	7.5	6.2	(8.8)						
Perjeta	3.2	3.8	3.9	5.2	5.6	+75.0						
Rituxan	6.2	5.7	5.2	4.2	3.1	(50.0)						
Tecentriq	-	1.7	3.3	4.1	3.7	-						
Xeloda	2.8	3.3	3.1	3.3	2.4	(14.3)						
Kadcyla	1.8	2.2	2.2	2.3	2.0	+11.1						
Tarceva	1.9	2.5	2.1	1.8	1.2	(36.8)						
Gazyva	-	-	0.1	0.5	0.6	-						
Alaglio	0.1	0.1	0.1	0.1	0.1	0.0						
Other products	0.8	1.0	1.4	1.4	0.9	+12.5						
<b>Bone and joint diseases</b>	21.6	25.4	25.4	28.0	24.2	+12.0						
Actemra	8.0	9.6	9.8	10.7	9.0	+12.5						
Edirol	7.0	8.2	8.3	9.4	8.0	+14.3						
Bonviva	2.1	2.4	2.3	2.6	2.3	+9.5						
Suvenyl	1.7	2.0	1.9	2.1	1.7	0.0						
Other products	2.9	3.1	3.1	3.2	3.2	+10.3						
<b>Renal diseases</b>	8.0	9.0	9.3	10.0	7.9	(1.3)						
Mircerca	4.9	5.8	5.9	6.5	5.0	+2.0						
Oxarol	1.7	1.8	1.8	2.0	1.6	(5.9)						
Other products	1.4	1.4	1.5	1.5	1.3	(7.1)						
<b>Others</b>	14.6	6.8	7.3	8.7	15.2	+4.1						
Hemlibra	-	0.5	1.0	1.5	2.7	-						
CellCept	2.0	2.3	2.2	2.4	2.2	+10.0						
Tamiflu(Ordinary use)	8.3	0.0	0.0	1.8	4.7	(43.4)						
Tamiflu(Govt. stockpiles etc.)	0.1	-	0.4	-	3.2	+3,100.0						
Other products	4.2	4.0	3.6	3.0	2.5	(40.5)						
<b>Overseas</b>	31.9	32.6	33.5	30.0	38.4	+20.4						
Actemra	23.4	21.5	19.6	16.1	25.3	+8.1						
To Roche	23.0	21.0	19.1	15.6	24.9	+8.3						
Alecensa	3.8	6.5	9.3	10.0	8.4	+121.1						
To Roche	3.7	6.3	9.1	9.8	8.2	+121.6						
Neutrogen	3.0	2.7	3.0	2.4	2.5	(16.7)						
Hemlibra	0.7	0.5	0.8	0.4	0.7	0.0						
Other products	1.0	1.4	0.8	1.1	1.4	+40.0						
<b>Royalties and other operating income</b>	22.7	6.8	8.2	14.2	16.6	(26.9)						
Royalty and profit-sharing income	5.0	5.1	5.7	8.3	13.7	+174.0						
Other operating income	17.7	1.8	2.5	5.9	2.9	(83.6)						
<b>Revenues</b>	147.4	137.7	141.3	153.4	154.3	+4.7						
Domestic	110.6	99.7	102.2	109.0	99.3	(10.2)						
Overseas	36.9	37.9	39.2	44.3	55.0	+49.1						

"Sales of Tamiflu", which was disclosed separately up to FY 2018, is included in "Sales of Domestic" from the first quarter in FY 2019.

"Royalties and other operating income" is disclosed separately as "Royalty and profit-sharing income" and "Other operating income" from the first quarter in FY 2019.



## Statements of revenues (YTD)

(Billions of yen)

	Actual		Actual					Actual						Forecast (Jan 31st announced)	
	FY2017		FY2018					FY2019						FY2019	
	1-12	1-3	1-6	1-9	1-12	1-3	Chang e (%)	1-6	Chang e (%)	1-9	Chang e (%)	1-12	Chang e (%)	1-12	Chang e (%)
	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
Sales	499.3	124.7	255.6	388.7	527.8	137.7	+10.4							528.0	0.0
Domestic	405.3	92.9	191.1	290.8	399.9	99.3	+6.9							389.1	(2.7)
Oncology	225.9	48.6	105.7	163.3	225.7	52.0	+7.0							215.9	(4.3)
Avastin	93.1	21.0	45.4	69.5	95.6	21.4	+1.9							89.4	(6.5)
Alecensa	16.7	4.0	9.4	14.7	20.6	4.9	+22.5							25.1	+21.8
Herceptin	33.6	6.8	13.8	20.6	28.1	6.2	(8.8)							24.0	(14.6)
Perjeta	13.6	3.2	7.0	11.0	16.1	5.6	+75.0							21.2	+31.7
Rituxan	33.4	6.2	11.9	17.0	21.3	3.1	(50.0)							13.5	(36.6)
Tecentriq	-	-	1.7	5.0	9.1	3.7	-							13.1	+44.0
Xeloda	12.2	2.8	6.1	9.2	12.5	2.4	(14.3)							9.4	(24.8)
Kadcyla	8.0	1.8	4.0	6.2	8.5	2.0	+11.1							9.1	+7.1
Tarceva	10.5	1.9	4.4	6.5	8.3	1.2	(36.8)							5.6	(32.5)
Gazyva	-	-	-	0.1	0.6	0.6	-							1.8	+200.0
Alaglio	0.0	0.1	0.1	0.2	0.3	0.1	0.0							0.4	+33.3
Other products	4.7	0.8	1.8	3.3	4.7	0.9	+12.5							3.3	(29.8)
Bone and joint diseases	93.3	21.6	47.0	72.4	100.5	24.2	+12.0							103.1	+2.6
Actemra	33.1	8.0	17.7	27.4	38.2	9.0	+12.5							38.2	0.0
Edirol	29.6	7.0	15.2	23.4	32.9	8.0	+14.3							35.3	+7.3
Bonviva	8.7	2.1	4.4	6.8	9.4	2.3	+9.5							10.9	+16.0
Suvenyl	8.8	1.7	3.7	5.7	7.8	1.7	0.0							6.1	(21.8)
Other products	13.1	2.9	6.0	9.1	12.3	3.2	+10.3							12.6	+2.4
Renal diseases	39.3	8.0	17.0	26.3	36.3	7.9	(1.3)							31.8	(12.4)
Mircera	23.9	4.9	10.6	16.6	23.1	5.0	+2.0							20.5	(11.3)
Oxarol	8.2	1.7	3.5	5.3	7.3	1.6	(5.9)							5.9	(19.2)
Other products	7.2	1.4	2.8	4.3	5.9	1.3	(7.1)							5.3	(10.2)
Others	46.8	14.6	21.5	28.8	37.5	15.2	+4.1							38.3	+2.1
Hemlibra	-	-	0.5	1.5	3.0	2.7	-							12.9	+330.0
CellCept	8.9	2.0	4.3	6.6	9.0	2.2	+10.0							9.0	0.0
Tamiflu(Ordinary use)	11.9	8.3	8.3	8.3	10.1	4.7	(43.4)							3.4	(66.3)
Tamiflu(Govt. stockpiles etc.)	5.0	0.1	0.1	0.5	0.5	3.2	+3,100.0							3.2	+540.0
Other products	21.0	4.2	8.3	11.9	14.9	2.5	(40.5)							9.8	(34.2)
Overseas	94.0	31.9	64.5	97.9	127.9	38.4	+20.4							138.9	+8.6
Actemra	60.9	23.4	44.9	64.4	80.6	25.3	+8.1							84.6	+5.0
To Roche	59.4	23.0	44.1	63.1	78.7	24.9	+8.3							82.7	+5.1
Alecensa	13.9	3.8	10.3	19.5	29.5	8.4	+121.1							36.6	+24.1
To Roche	13.9	3.7	10.0	19.1	28.9	8.2	+121.6							36.0	+24.6
Neutrogin	12.3	3.0	5.7	8.7	11.1	2.5	(16.7)							9.5	(14.4)
Hemlibra	3.1	0.7	1.2	2.0	2.3	0.7	0.0							2.4	+4.3
Other products	3.9	1.0	2.4	3.3	4.4	1.4	+40.0							5.8	+31.8
Royalties and other operating income	34.9	22.7	29.5	37.7	51.9	16.6	(26.9)							64.5	+24.3
Royalty and profit-sharing income	17.2	5.0	10.1	15.8	24.1	13.7	+174.0							53.5	+122.0
Other operating income	17.7	17.7	19.5	21.9	27.9	2.9	(83.6)							11.0	(60.6)
Revenues	534.2	147.4	285.1	426.4	579.8	154.3	+4.7							592.5	+2.2
Domestic	410.9	110.6	210.3	312.5	421.5	99.3	(10.2)							390.9	(7.3)
Overseas	123.3	36.9	74.8	114.0	158.3	55.0	+49.1							201.6	+27.4

"Sales of Tamiflu", which was disclosed separately up to FY 2018, is included in "Sales of Domestic" from the first quarter in FY 2019.

"Royalties and other operating income" is disclosed separately as "Royalty and profit-sharing income" and "Other operating income" from the first quarter in FY 2019.

## Financial position

(Billions of yen)

	Actual	Actual				Actual										
	FY2017	FY2018				FY2019										
	Dec. 31	Mar. 31	Jun. 30	Sep. 30	Dec. 31	Mar. 31	vs. Mar. 31, 2018	vs. Dec. 31, 2018	Jun. 30	vs. Jun. 30, 2018	vs. Dec. 31, 2018	Sep. 30	vs. Sep. 30, 2018	vs. Dec. 31, 2018	Dec. 31	vs. Dec. 31, 2018
Trade accounts receivable	148.5	137.1	140.6	145.7	150.8	149.6	12.5	(1.2)								
Inventories	169.1	168.1	170.0	163.8	159.4	168.7	0.6	9.3								
Trade accounts payable	(38.4)	(48.7)	(46.2)	(42.3)	(35.9)	(54.9)	(6.2)	(19.0)								
Other net working capital	(28.4)	(24.7)	(18.2)	(28.7)	(39.1)	(19.1)	5.6	20.0								
Net working capital	250.7	231.8	246.3	238.5	235.1	244.3	12.5	9.2								
Property, plant and equipment	171.6	174.6	179.2	187.6	222.4	222.1	47.5	(0.3)								
Right-of-use assets	-	-	-	-	-	12.5	12.5	12.5								
Intangible assets	21.1	17.9	18.1	19.8	22.7	21.9	4.0	(0.8)								
Other long-term assets - net	(3.1)	13.2	12.4	16.9	25.1	27.9	14.7	2.8								
Long-term net operating assets	189.5	205.7	209.6	224.3	270.1	284.3	78.6	14.2								
Net operating assets	440.2	437.5	455.9	462.7	505.3	528.6	91.1	23.3								
Debt	(0.3)	(0.3)	(0.3)	(0.2)	(0.2)	-	0.3	0.2								
Marketable securities	104.0	113.8	119.9	122.9	102.5	111.5	(2.3)	9.0								
Cash and cash equivalents	139.1	152.8	154.6	146.0	146.9	125.8	(27.0)	(21.1)								
Net cash	242.8	266.3	274.2	268.6	249.2	237.4	(28.9)	(11.8)								
Other non-operating assets - net	9.9	7.6	1.5	8.3	2.1	(5.5)	(13.1)	(7.6)								
Net non-operating assets	252.7	273.9	275.7	276.9	251.3	231.8	(42.1)	(19.5)								
Total net assets	692.9	711.3	731.7	739.6	756.5	760.5	49.2	4.0								
Total net assets																
Total assets	852.5	852.9	873.3	890.8	919.5	932.2	79.3	12.7								
Total liabilities	(159.6)	(141.5)	(141.7)	(151.2)	(163.0)	(171.8)	(30.3)	(8.8)								
Attributable to																
Chugai shareholders	691.9	710.1	731.2	739.0	755.9	760.5	50.4	4.6								
Non-controlling interests	1.0	1.2	0.5	0.7	0.7	-	(1.2)	(0.7)								

Trade accounts receivable: trade receivable and notes receivable

Trade accounts payable: trade payable and notes payable

Other net working capital: accrued receivable (other receivable), accrued payable (other payable), accrued expenses (other current liabilities) etc.

Other long-term assets-net: long-term prepaid expenses, long-term provisions etc.

Other non-operating assets-net: deferred income tax assets, current income tax liabilities etc.

Net operating assets (NOA) and Net assets:

The consolidated balance sheet has been prepared in accordance with International Accounting Standards (IAS) No. 1, "Presentation of Financial Statements." On the other hand, Net operating assets (NOA) and Net assets are a reconfiguration of the consolidated balance sheet as internal indicators and are identical to the indicators disclosed by Roche. Furthermore, no items from Net operating assets (NOA) and Net assets of IFRS have been excluded, as the Core results concept only applies to the income statement.

Net operating assets (NOA):

Net operating assets allow for an assessment of the Group's operating performance of the business independently from financing and tax activities. Net operating assets are calculated as net working capital, long-term net operating assets that includes property, plant and equipment, right-of-use assets, intangible assets etc. minus provisions.

IFRS16 'Leases'

From the first quarter of the fiscal year ended 31 December 2019, the Group has implemented IFRS 16 'Leases'. As a result, leased assets, including right-of-use asset, lease receivable and so on totalling ¥ 15.2 billion and lease liabilities totalling ¥ 14.6 billion have been recorded on the balance sheet, effective 1 January 2019.

## Cash flows

(Billions of yen)

	Actual	Actual				Actual			
	FY2017	FY2018				FY2019			
	1-12	1-3	1-6	1-9	1-12	1-3	1-6	1-9	1-12
	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
Operating profit – IFRS basis	98.9	38.4	66.6	97.9	124.3	46.1			
Depreciation and impairment of property, plant and equipment	14.6	3.7	7.4	11.1	14.6	3.7			
Depreciation and impairment of right-of-use assets	-	-	-	-	-	1.5			
Amortization and impairment of intangible assets	5.8	4.6	5.5	5.9	6.8	2.1			
Other cash adjustment on operating profit	1.7	0.4	1.0	1.5	1.6	0.8			
Operating profit, net of operating cash adjustments	121.0	47.1	80.4	116.4	147.4	54.1			
(Increase) decrease in trade accounts receivable	(7.6)	11.4	7.8	2.8	(2.4)	1.2			
(Increase) decrease in inventories	21.1	0.5	(1.9)	4.5	14.2	(9.5)			
Increase (decrease) in trade accounts payable	(4.2)	10.3	7.8	3.9	(2.4)	18.9			
Change in other net working capital etc.	5.2	(1.7)	(10.8)	(8.5)	(4.8)	(13.2)			
Total (increase) decrease in net working capital etc.	14.5	20.5	2.9	2.7	4.5	(2.5)			
Investment in property, plant and equipment	(32.9)	(9.9)	(15.1)	(23.8)	(71.8)	(7.4)			
Lease liabilities paid	-	-	-	-	-	(2.2)			
Investment in intangible assets	(11.6)	(1.4)	(2.4)	(4.6)	(5.9)	(3.8)			
Operating free cash flow	91.0	56.3	65.9	90.7	74.3	38.3			
as % of revenues	17.0%	38.2%	23.1%	21.3%	12.8%	24.8%			
Treasury activities (interest income/expenses, foreign exchange gains/losses etc.)	1.6	3.4	3.7	3.4	4.3	0.1			
Settlement for transfer pricing taxation	(5.2)	(0.6)	(1.5)	(2.1)	(3.2)	(0.8)			
Tax paid	(22.7)	(16.8)	(17.1)	(31.3)	(31.6)	(17.8)			
Free cash flow	64.7	42.3	50.9	60.7	43.7	19.7			
Dividends paid	(31.0)	(17.9)	(18.0)	(34.9)	(35.8)	(29.9)			
Transaction in own equity instruments	0.9	0.2	0.5	0.9	1.0	0.2			
Purchase of non-controlling interests	-	-	-	-	-	(1.7)			
Net effect of currency translation on net cash	3.2	(1.0)	(2.0)	(0.8)	(2.5)	(0.2)			
Net change in net cash	37.9	23.5	31.4	25.8	6.4	(11.8)			

Other cash adjustment on operating profit: adjustments for all non-cash income and expense items other than amortization expenses and impairment included in operating profit (such as loss on inventory differences, reserve for doubtful accounts, stock option expenses, loss on asset retirement, and increase/decrease in reserves) as well as all non-operating income and expense cash flows relating to net operating assets (NOA) (including proceeds from the sales of assets and reserve payments).

Operating free cash flow (Operating FCF): pretax cash flow after adjusting changes in working capital and operating investments in assets (tangible and intangible) to "operating profit, net of operating cash adjustments," which shows the company's cash generation ability from operating activities.

Free cash flow (FCF): the ability to generate net cash from a management perspective after deducting tax, dividends, and other payments from operating FCF.

Net change in net cash: dividends paid, increases and decreases in marketable securities and interest-bearing debt, changes in equity are included.

The concepts of operating profit, operating FCF and Net operating assets (NOA) presented in the previous page are mutually consistent.

## IFRS16 'Leases'

From the first quarter of the fiscal year ended 31 December 2019, the Group has implemented IFRS 16 'Leases'. As a result, cash flows in respect of leases previously reported as operating leases are reported as part of cash flows from financing activities.

## Free cash flow (FCF):

The consolidated statement of cash flows has been prepared in accordance with International Accounting Standard (IAS) No. 7, "Statement of Cash Flows." FCF is a reconfiguration of the consolidated statement of cash flows as internal indicators and is identical to the indicators disclosed by Roche. Furthermore, no items from FCF have been excluded, as the Core results concept only applies to the income statement.

## Key Performance indicators

	Units	Actual	Actual				Actual				Forecast (Jan 31st announced)
		2017	2018				2019				2019
		1-12	1-3	1-6	1-9	1-12	1-3	1-6	1-9	1-12	1-12
		As of Dec. 31	As of Mar. 31	As of Jun. 30	As of Sep. 30	As of Dec. 31	As of Mar. 31	As of Jun. 30	As of Sep. 30	As of Dec. 31	As of Dec. 31
<b>Total indicator</b>											
Core return on invested capital (Core ROIC)	%	18.1	7.3	12.1	17.0	21.2	7.0				
Return on invested capital (ROIC)	%	17.1	6.6	11.1	15.8	19.0	6.8				
Ratio of profit to total assets (ROA)	%	8.9	3.3	5.7	8.1	10.5	3.8				
Ratio of equity attributable to Chugai shareholders	%	81.2	83.3	83.7	83.0	82.2	81.6				
Ratio of equity attributable to Chugai shareholders (stock price base)	%	370.1	345.0	364.0	448.4	379.7	446.8				
Price book value ratio (PBR)	times	4.6	4.1	4.3	5.4	4.6	5.5				
Ratio of net income to equity attributable to Chugai shareholders (ROE)	%	10.9	4.0	6.8	9.8	12.8	4.6				
<b>Margin indicator</b>											
ROS	%	19.3	29.0	25.1	24.2	22.5	31.0				24.1
COS ratio (vs. Prod. sales)	%	50.7	50.9	50.3	50.0	49.6	46.3				47.8
M&D cost ratio	%	13.6	10.8	11.6	11.8	12.7	10.0				
R&D cost ratio	%	16.6	14.2	15.4	15.5	16.2	15.3				17.2
G&A cost ratio	%	3.1	2.9	2.7	2.9	3.4	2.4				
<b>Turn over indicator</b>											
Total asset turnover	%	64.4	17.3	33.0	48.9	65.4	16.5				
Working capital turnover	%	122.6	33.6	63.6	94.5	122.6	29.4				
Inventory turnover	Months	8.0	7.9	7.9	7.6	7.3	7.9				
Receivables turnover	Months	3.6	3.3	3.3	3.4	3.4	3.3				
Payables turnover	Months	1.8	2.3	2.1	2.0	1.6	2.6				
Fixed asset turnover	%	289.5	76.6	146.3	213.2	264.9	59.7				
PP&E turnover	%	325.1	85.2	162.6	237.5	294.3	69.4				
Intangible assets turnover	%	2,646.1	757.4	1,456.3	2,087.5	2,648.9	692.3				
<b>Dividend / per stock indicator</b>											
Dividends per share (Half year)	Yen	29				31					48
Dividends per share (Full year)	Yen	62				86					96
Core earnings per share (diluted)	Yen	138.68	56.52	95.27	135.14	176.42	66.15				198.00
Core payout ratio (%)	%	44.7				48.7					48.5
Equity per share attributable to Chugai shareholders (BPS)	Yen	1,265.46	1,298.53	1,336.49	1,350.49	1,381.26	1,389.44				
Ratio of dividends to equity attributable to Chugai shareholders (DOE)	%	5.1				6.5					
<b>Cashflow indicator</b>											
Cash conversion cycle (CCC)	Months	9.7	8.9	9.1	9.0	9.1	8.6				
Net cash turnover period	Months	5.5	5.4	5.8	5.7	5.2	4.6				
<b>Number of employees</b>											
Number of employees		7,372	7,331	7,490	7,475	7,432	7,411				
Investment on property, plant and equipment	Billions of yen	34.3	7.0	14.5	27.9	71.8	3.7				56.0
Depreciation	Billions of yen	14.5	3.7	7.4	11.0	14.6	3.7				15.0
Investment on intangible assets	Billions of yen	8.0	1.4	2.5	4.6	8.5	1.2				
Amortization	Billions of yen	1.8	0.5	1.0	1.5	2.0	0.6				

Core ROIC: Core net operating profit after taxes / Net operating assets (Core ROIC is calculated by using Core Income taxes)

ROIC: Net operating profit after taxes / Net operating assets (Net operating profit after taxes = Operating profit - income taxes)

ROA: Net income / total assets

ROE: Net income attributable for Chugai shareholders / Equity attributable to Chugai shareholders

Total asset turnover: Revenues / Total asset

CCC: [Trade accounts receivable/Sales + (Inventories - Trade accounts payable)/Cost of sales]\* passed months

Net cash turnover period: Net cash/Revenue\* passed months

Core ROIC, ROIC, ROA, ROE, total asset turnover, working capital turnover, fixed asset turnover, PP&E turnover, and intangible assets turnover are not annualized

As a result of IFRS 16 'Leases' implementation, leased assets, including right-of-use asset, lease receivable and so on totaling ¥ 15.2 billion and lease liabilities totaling ¥ 14.6 billion have been recorded on the balance sheet, effective 1 January 2019. The leased assets are included in NOA calculation.

The Adjusted figures are used for calculating average NOA for Core ROIC and ROIC

**Development pipeline (as of January 31, 2019)**

Development code	Indication # Additional indication	Stage (Date)	Generic name Product name Dosage form	Origin Overseas name (Collaborator)	Mode of Action
<b><u>Oncology</u></b>					
RG7446	Non-small cell lung cancer (NSCLC) [1st line] #	Approved (18/12)	atezolizumab Tecentriq Injection	Roche Tecentriq	Engineered anti-PDL1 monoclonal antibody
	Small cell lung cancer #	Filed (18/12)			
	Breast cancer #	Filed (18/12)			
	NSCLC (adjuvant) #	Phase III Multinational study			
	Urothelial carcinoma #	Phase III Multinational study			
	Muscle invasive urothelial carcinoma (adjuvant) #	Phase III Multinational study			
	Renal cell carcinoma #	Phase III Multinational study			
	Renal cell carcinoma (adjuvant) #	Phase III Multinational study			
	Early breast cancer #	Phase III Multinational study			
	Ovarian cancer #	Phase III Multinational study			
	Prostate cancer #	Phase III Multinational study			
	Hepatocellular carcinoma #	Phase III Multinational study			
	Head and neck carcinoma (adjuvant) #	Phase III Multinational study			
RG6268	Solid tumors [ <i>NTRK</i> fusion-positive]	Filed (18/12)	entrectinib  Oral	Roche/Nerviano Medical Sciences	ROS1/TRK inhibitor
	NSCLC	Filed (19/03)			
RG435	Renal cell carcinoma #	Phase III Multinational study	bevacizumab Avastin	Roche Avastin	Anti-VEGF (Vascular Endothelial Growth Factor) humanized monoclonal antibody

Development code	Indication # Additional indication	Stage (Date)	Generic name Product name Dosage form	Origin Overseas name (Collaborator)	Mode of Action
	Hepatocellular carcinoma #	Phase III Multinational study	Injection		
RG3502	Breast cancer (adjuvant) #	Phase III Multinational study	trastuzumab emtansine Kadcyla Injection	Roche Kadcyla	Anti-HER2 antibody-tubulin polymerization inhibitor conjugate
RG7440	Prostate cancer	Phase III Multinational study	ipatasertib	Roche/Array BioPharma	AKT inhibitor
	Breast cancer	Phase III Multinational study	Oral		
RG7596	Diffuse large B-cell lymphoma (DLBCL)	Phase III Multinational study	polatuzumab vedotin  Injection	Roche	Anti-CD79b antibody-drug conjugate
RG6264	Breast cancer (Fixed-dose combination, subcutaneous injection)	Phase III Multinational study	trastuzumab/pertuzumab Herceptin/Perjeta Injection	Roche Herceptin/Perjeta	Anti-HER2 humanized monoclonal antibody/ HER2 dimerization inhibitory humanized monoclonal antibody
AF802 / RG7853	NSCLC (adjuvant) #	Phase III Multinational study	alectinib Alecensa Oral	In-house Alecensa (Roche)	ALK inhibitor
GC33	Hepatocellular carcinoma	Phase I Multinational study*	codrituzumab  Injection	In-house	Anti-Glypican-3 humanized monoclonal antibody
CKI27	Solid tumors	Phase I	  Oral	In-house	Raf and MEK dual inhibitor
ERY974	Solid tumors	Phase I	  Injection	In-house	Anti-Glypican-3/CD3 bispecific antibody
RG7421	Solid tumors	Phase I	cobimetinib  Oral	Roche/Exelixis Cotellic	MEK inhibitor
RG7802	Solid tumors	Phase I	cibisatamab  Injection	Roche	Anti-CEA/CD3 bispecific antibody
RG7828	Hematologic tumors	Phase I	mosunetuzumab  Injection	Roche	Anti-CD20/CD3 bispecific antibody

Development code	Indication # Additional indication	Stage (Date)	Generic name Product name Dosage form	Origin Overseas name (Collaborator)	Mode of Action
<b><u>Bone and Joint Diseases</u></b>					
ED-71	Osteoporosis	Filed (18/02) China	eldecalcitol Edirol Oral	In-house	Activated vitamin D <sub>3</sub> agent
NRD101	Knee osteoarthritis /Shoulder periarthritis	Phase III China	purified sodium hyaluronate Suvenyl Injection	In-house	Sodium hyaluronate
<b><u>Renal Diseases</u></b>					
EOS789	Hyperphosphatemia	Phase I	Oral	In-house	—
<b><u>Autoimmune Diseases</u></b>					
MRA / RG1569	Systemic sclerosis #	Phase III Multinational study	tocilizumab Actemra Injection	In-house Actemra/RoActemra (EU) (Roche)	Humanized anti-human IL-6 receptor monoclonal antibody
RG7845	Rheumatoid arthritis	Phase I	fenebrutinib  Oral	Roche	BTK inhibitor
<b><u>Neurology</u></b>					
RG1450	Alzheimer's disease	Phase III Multinational study	gantenerumab  Injection	Roche/MorphoSys	Anti-amyloid-beta human monoclonal antibody
SA237 / RG6168	Neuromyelitis optica spectrum disorder (NMOSD)	Phase III Multinational study*	satralizumab  Injection	In-house  (Roche)	Anti-IL-6 receptor recycling antibody
RG6042	Huntington's disease	Phase III Multinational study	  Injection	Roche/Ionis Pharmaceuticals	Antisense oligonucleotide targeting <i>HTT</i> mRNA
RG6206	Duchenne muscular dystrophy (DMD)	Phase II/III Multinational study	  Injection	Roche/Bristol-Myers Squibb	Anti-myostatin adnectin
RG7916	Spinal muscular atrophy (SMA)	Phase II/III Multinational study	risdiplam  Oral	Roche/PTC Therapeutics	SMN2 splicing modifier

Development code	Indication # Additional indication	Stage (Date)	Generic name Product name Dosage form	Origin Overseas name (Collaborator)	Mode of Action
RG7935	Parkinson's disease	Phase I	prasinezumab Injection	Roche/Prothena	Anti- $\alpha$ -synuclein monoclonal antibody
GYM329 / RG6237	Neuromuscular disease	Phase I	Injection	In-house (Roche)	—
RG7906	Psychiatric disorders	Phase I	Oral	Roche	—
RG6100	Alzheimer's disease	Phase I	injection	Roche/AC Immune	Anti-tau humanized monoclonal antibody
RG7412	Alzheimer's disease	Development discontinued	crenezumab Injection	Roche/AC Immune	Anti-amyloid-beta humanized monoclonal antibody
<b>Other diseases</b>					
ACE910 / RG6013	Hemophilia A (Non-inhibitor) #	Approved (18/12) Japan	emicizumab Hemlibra Injection	In-house Hemlibra (Roche)	Anti-FIXa/FX bispecific antibody
		Approved (19/03) Europe			
RG7716	Diabetic macular edema	Phase III Multinational study	faricimab	Roche	Anti-VEGF/Ang2 bispecific antibody
	Wet age-related macular degeneration	Phase III Multinational study	Injection		
CIM331**	Pruritus in dialysis patients	Phase II	nemolizumab Injection	In-house	Anti-IL-31 receptor A humanized monoclonal antibody
SKY59 / RG6107	Paroxysmal nocturnal hemoglobinuria (PNH)	Phase I/II Multinational study	crovalimab Injection	In-house (Roche)	Anti-C5 recycling antibody
PCO371	Hypoparathyroidism	Phase I	Oral	In-house	PTH1 receptor agonist
AMY109	Endometriosis	Phase I		In-house	—



Development code	Indication # Additional indication	Stage (Date)	Generic name Product name Dosage form	Origin Overseas name (Collaborator)	Mode of Action
			Injection		

In principle, completion of first dose is regarded as the start of clinical studies in each phase.

\* Multinational studies managed by Chugai

\*\* Development for atopic dermatitis: Out-licensed to Galderma (Overseas) and Maruho (Japan)

## Changes from the last announcement on January 31, 2019

### Oncology

- RG6268 Phase II multinational study → Filed (NSCLC)

### Neurology

- RG6042 Phase III multinational study (Huntington's disease : development started)
- RG6100 Phase I (Alzheimer's disease : development started)
- RG7412 Phase III multinational study (Alzheimer's disease) → Development discontinued

### Other diseases

- ACE910/RG6013 Filed → Approved (Hemophilia A (Non-inhibitor)) [Europe]
- RG7716/faricimab Phase I (Wet age-related macular degeneration) →Phase III multinational study

## R&D Activities

For the changes during the first quarter of FY2019 (January 1 – March 31), please refer to page 4 of “CONSOLIDATED FINANCIAL STATEMENTS (IFRS) (Non-Audited) (for the first quarter of the fiscal year 2019).”

Changes from April 1 to 24, 2019 are as follows:

### Neurology

- We started Phase I study for the anti-tau humanized monoclonal antibody RG6100 for the expected indication of Alzheimer's disease in April, 2019.
- We decided to discontinue the development of the anti-amyloid-beta humanized monoclonal antibody RG7412 for Alzheimer's disease in consideration of the results of Phase III multinational studies (CREAD1 and CREAD2 study).

## Major clinical trials in oncology field

Treatment	Expected Indication	Study design	Study name	Stage	Planned filing year	
RG3502, Kadcyła	Breast cancer (adjuvant)	Kadcyła + Perjeta vs. Herceptin + Perjeta + chemo	KAITLIN	Phase III	2020	
RG7446 (Tecentriq)	Non-small cell lung cancer (NSCLC) [1st line]	PD-L1 positive: Tecentriq vs. chemo	IMpower110	Phase III	-	
		TMB* positive: Tecentriq vs. chemo	B-FAST	Phase II/III		
		Non-Squamous: Chemo ± Tecentriq	IMpower132	Phase III		
		Squamous: Chemo ± Tecentriq	IMpower131	Phase III		
	NSCLC (adjuvant)	Tecentriq vs. best supportive care	IMpower010	Phase III	2020	
	Small cell lung cancer	carboplatin + etoposide ± Tecentriq	IMpower133	Phase III	Filed	
	Urothelial carcinoma (UC)	Tecentriq ± chemo vs. chemo	IMvigor130	Phase III	2021	
	Muscle invasive UC (adjuvant)	Tecentriq vs. observation	IMvigor010	Phase III	2020	
	Renal cell carcinoma	Tecentriq + Avastin vs. sunitinib	IMmotion151	Phase III	2020	
	Renal cell carcinoma (adjuvant)	Tecentriq	IMmotion010	Phase III	2022 and beyond	
	Breast cancer	TNBC**:	nab-paclitaxel ± Tecentriq	IMpassion130	Phase III	Filed
		TNBC:	paclitaxel ± Tecentriq	IMpassion131	Phase III	
	Early breast cancer	TNBC (adjuvant):	paclitaxel ± Tecentriq	IMpassion030	Phase III	2021
		TNBC (neoadjuvant):	nab-paclitaxel ± Tecentriq	IMpassion031	Phase III	
		HER2+BC (neoadjuvant):	Herceptin + Perjeta + chemo ± Tecentriq	IMpassion050	Phase III	
	Ovarian cancer	carboplatin + paclitaxel + Avastin ± Tecentriq	IMaGYN050	Phase III	2020	
Prostate cancer	Castration-resistant prostate cancer: enzalutamide ± Tecentriq	IMbassador250	Phase III	2021		
Hepatocellular carcinoma	Tecentriq + Avastin vs. sorafenib	IMbrave150	Phase III	2021		
Head and neck carcinoma (adjuvant)	Tecentriq	IMvoke010	Phase III	2021		
RG7440 (ipatasertib)	Prostate cancer	abiraterone ± RG7440	IPATential150	Phase III	2021	
	Breast cancer	TNBC: paclitaxel ± RG7440 HR+ breast cancer: paclitaxel ± RG7440	IPATunity130	Phase III	2020	
RG7596 (polatuzumab vedotin)	DLBCL	Chemo ± RG7596	POLARIX	Phase III	2021	
RG6264***	Breast cancer	RG6264 (SC) + chemo vs. Herceptin (IV) + Perjeta (IV) + chemo	FeDeriCa	Phase III	2021	
RG6268 (entrectinib)	Solid tumors	<i>NTRK</i> fusion-positive solid tumors: RG6268	STARTRK2	Phase II	Filed	
	NSCLC	<i>ROS1</i> fusion-positive NSCLC: RG6268			Filed	
AF802, Alecensa	NSCLC (adjuvant)	<i>ALK</i> fusion-positive NSCLC: Alecensa vs. chemo	ALINA	Phase III	2022 and beyond	

\* TMB: tumor mutational burden    \*\* TNBC: triple negative breast cancer    \*\*\* Fixed-dose combination, subcutaneous injection