



## Q1 Results (Jan - Mar 2021) Conference Call

CHUGAI PHARMACEUTICAL CO., LTD.

22 April 2021



## **Important Reminder**



### **Forward-Looking Statements**

This presentation may include forward-looking statements pertaining to the business and prospects of Chugai Pharmaceutical Co., Ltd. (the "Company"). These statements reflect the Company's current analysis of existing information and trends. Actual results may differ from expectations based on risks and uncertainties that may affect the Company's businesses.

### **Core Results**

Chugai discloses its results on a Core basis from 2013 in conjunction with its transition to IFRS. Core results are the results after adjusting non-recurring items recognized by Chugai 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 status of recurring profits both internally and externally, and as the basis for payment-by-results, including return to shareholders.

#### Note:

- Amounts shown in this report are rounded to the nearest 0.1 billion yen
- Variance and % are calculated based on the amounts shown

## Agenda



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FY2021 Q1 Overview

Dr. Osamu Okuda

President & CEO

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FY2021 Q1 Consolidated Financial Overview (Core) Toshiaki Itagaki

Executive Vice President & CFO

( 03 )

**Overview of Development Pipeline** 

Tetsuya Yamaguchi

Senior Vice President, Head of Project & Lifecycle Management Unit



## FY2021 Q1 Overview

Dr. Osamu Okuda

President & CEO



### Financial Overview

- YoY decrease in revenues and profits due to NHI drug price revision and timing of exports to Roche, etc., but the progress was in line with the initial forecast
- No change in outlook for earnings growth from April, and expect increase in revenues and profits as initially forecasted

Core	2020	2021			2021	Drogross
(billions of JPY)	Jan -Mar	Jan -Mar	Growth		Jan - Dec	Progress (%)
(billions of J. 1)	actual	actual			forecast	(70)
Revenues	179.4	168.8	-10.6	-5.9%	800.0	21.1%
Domestic sales	101.9	94.9	-7.0	-6.9%	393.7	24.1%
Overseas sales	42.6	35.4	-7.2	-16.9%	237.3	14.9%
ROOI	34.9	38.6	+3.7	+10.6%	169.0	22.8%
Operating profit	74.1	65.4	-8.7	-11.7%	320.0	20.4%
Operating margin	41.3%	38.7%	-2.6%pts		40.0%	-
Net income	52.7	48.4	-4.3	-8.2%	232.0	20.9%
EPS (yen)*	32.04	29.42	-2.62	-8.2%	141.00	20.9%

- ✓ No major negative impact on financial performance due to COVID-19
- ✓ Domestic sales decreased due to NHI drug price revision in April last year, but the progress was in line with the initial forecast
- As for overseas sales, exports to Roche are not evenly distributed each quarter, and the low progress was in line with the initial forecast
- ✓ ROOI increased due to growth in overseas local sales as expected

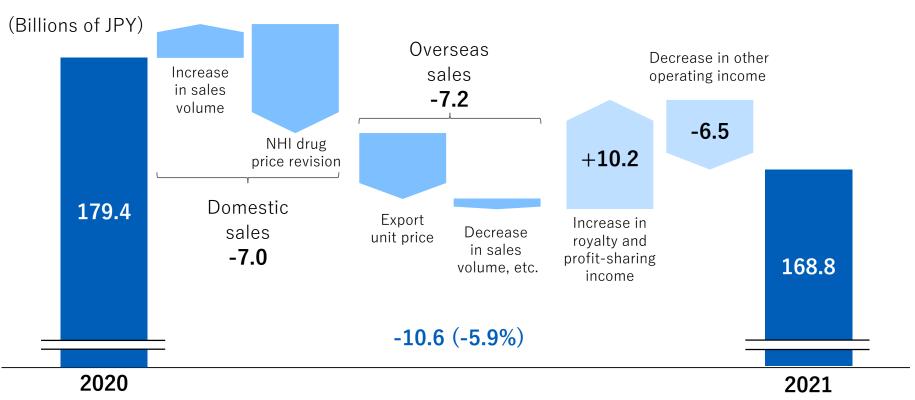
ROOI: Royalties and other operating income

<sup>\*</sup> Effective July 1, 2020, Chugai has implemented a three-for-one stock split of its common stock. EPS is calculated based on the assumption that the stock split was implemented at the beginning of the previous fiscal year.

# CHUGAI Roche Roche Group

## **Topline Overview**

- Domestic sales decreased due to NHI drug price revision, despite an increase in sales volume amid the impact of generic products
- Overseas sales decreased due to lower export unit price and timing of exports to Roche
- Royalty income increased due to growth in overseas local sales of in-house products



- ✓ Domestic sales for Tecentriq, Kadcyla, and Enspryng exceeded expectations. Impact of generics on some products and impact of NHI drug price revision were significant. Overall sales declined, but progress was in line with the initial forecast.
- ✓ Overseas sales decreased due to decline in export unit price and timing of exports of Actemra to Roche as expected
- ✓ Royalty income increased due to growth in overseas local sales of Hemlibra and Actemra as expected



(As of April 22 2021)

### **R&D Overview**

- Obtained approval for multiple first-in-class products in Japan, which is expected to contribute to sales this year
  - ✓ Polivy: Aiming for early market penetration through obtaining approval and launch for relapsed / refractory indication prior to 1st line treatment
  - ✓ FoundationOne Liquid CDx\*: Preparing for launch to address diverse needs with complementary use
- Progress of development pipelines for COVID-19
  - ✓ Actemra: REMDACTA study did not meet its primary endpoint Collaborating with Roche to evaluate clinical study results obtained to date
  - ✓ Antibody Cocktail: Achieved primary endpoints in multiple Phase 3 trials conducted overseas.

    Domestic Phase 1 study initiated, scheduled to file in 2021
  - ✓ AT-527: Oral new drug candidate in-licensed from Roche, preparing for development in Japan

			(AS 01 April 22, 2021)
Approved	Actemra Polivy FoundationOne Liquid CDx*	Adult patients with SSc-ILD** Relapsed or Refractory Diffuse Large B-cell Lymphoma Blood-based Comprehensive Genomic Profiling Test for Solid Tumor	Mar. 2021 (US) Mar. 2021 s Mar. 2021
Filed	Enspryng nemolizumab Risdiplam	Neuromyelitis Optica Spectrum Disorder atopic dermatitis Spinal Muscular Atrophy	Aug. 2019 (EU) Q3 2020*** Oct. 2020



## FY2021 Q1 Consolidated Financial Overview (Core)

### Toshiaki Itagaki

Executive Vice President & CFO

# CHUGAI Roche Roche Group

## P/L Jan - Mar (Year on Year)

(Billions of JPY)	2020	2021	Grow	th
Revenues	179.4	168.8	- 10.6	- 5.9%
Sales	144.5	130.3	- 14.2	- 9.8%
Domestic	101.9	94.9	- 7.0	- 6.9%
Overseas	42.6	35.4	- 7.2	- 16.9%
Royalties and other operating income	34.9	38.6	+ 3.7	+ 10.6%
Royalty and profit-sharing income	26.4	36.6	+ 10.2	+ 38.6%
Other operating income	8.5	2.0	- 6.5	- 76.5%
Cost of sales	-61.0	-55.0	+ 6.0	- 9.8%
( cost to sales ratio)	42.2%	42.2%	-	-
Operating expenses	-44.4	-48.5	- 4.1	+ 9.2%
M&D and G&A $st^1$	-19.4	-19.7	- 0.3	+ 1.5%
Research and development	-25.0	-28.7	- 3.7	+ 14.8%
Operating profit	74.1	65.4	- 8.7	- 11.7%
(operating margin)	41.3%	38.7%	-2.6%pts	-
Financial account balance	-1.2	0.3	+ 1.5	-
Income taxes	-20.2	-17.2	+ 3.0	- 14.9%
Net income	52.7	48.4	- 4.3	- 8.2%
EPS (JPY) * <sup>2</sup>	32.04	29.42	-2.62	- 8.2%

#### **Domestic sales**

Decrease due to NHI drug price revision and launch of generic drugs

#### Overseas sales

Decrease in export of Actemra

### Royalty and profit-sharing income

Increase in income for Hemlibra

#### Other operating income

Decrease in one-time income

#### Cost of sales

Cost to sales ratio remained unchanged from 2020 Q1

### **Operating expenses**

Increase of research and development expenses due to progress of projects, etc.

### Operating profit

Decrease due to lower revenues, including a decrease in one-time income, and an increase in research and development expenses

<sup>\*1</sup> M&D: Marketing and distribution, G&A: General and administration

<sup>\*2</sup> Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. EPS are calculated based on the assumption that the stock split was implemented at the beginning of the previous fiscal year.



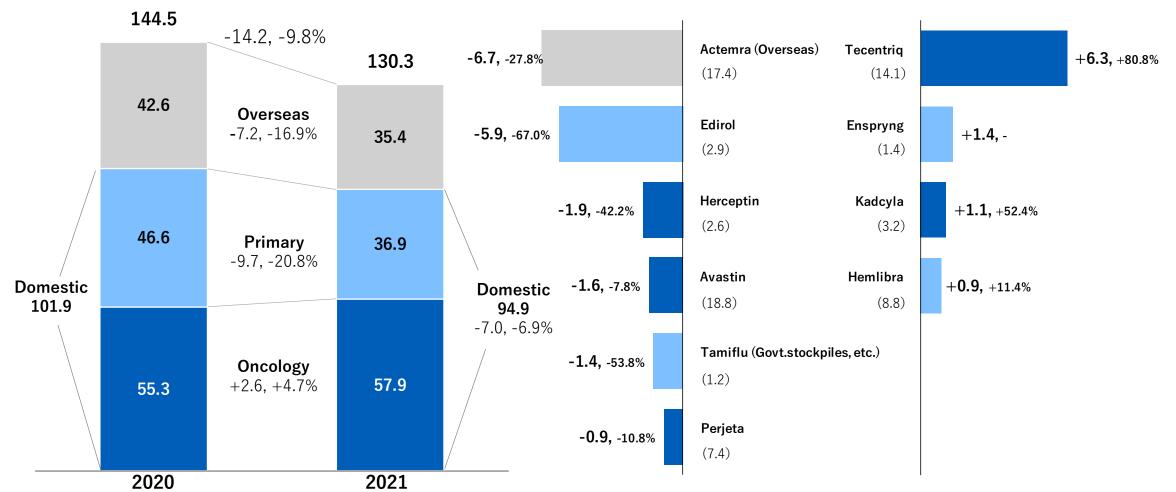
## Sales Jan - Mar (Year on Year)

Sales by Disease Area, Year on Year Comparisons

Sales by Products, Year on Year Changes %: Year-on-year percentage change

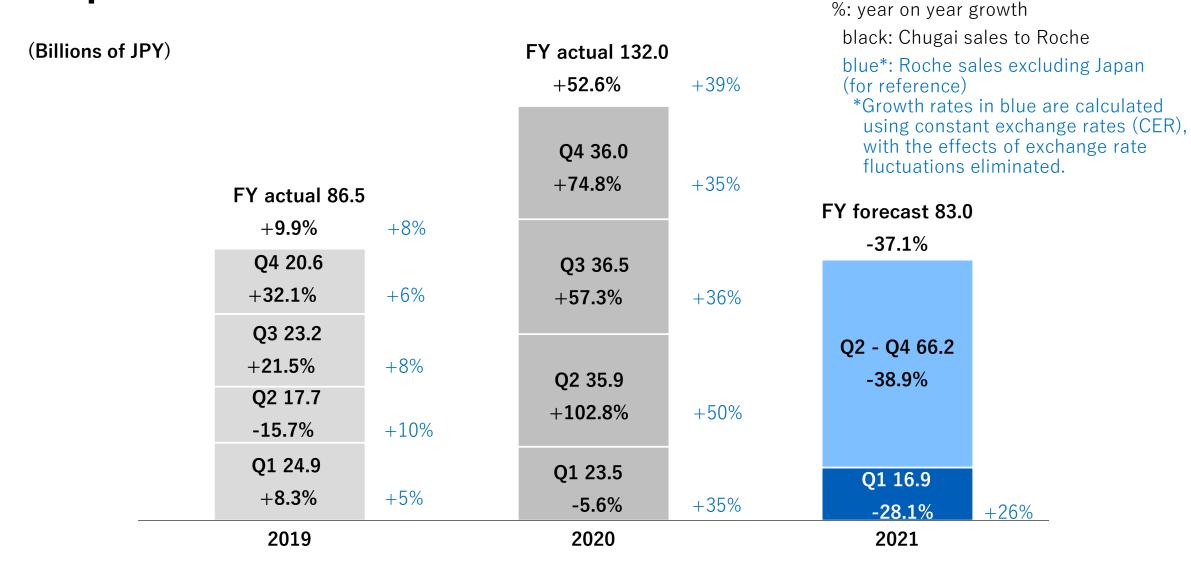
(): Actual sales in FY2021







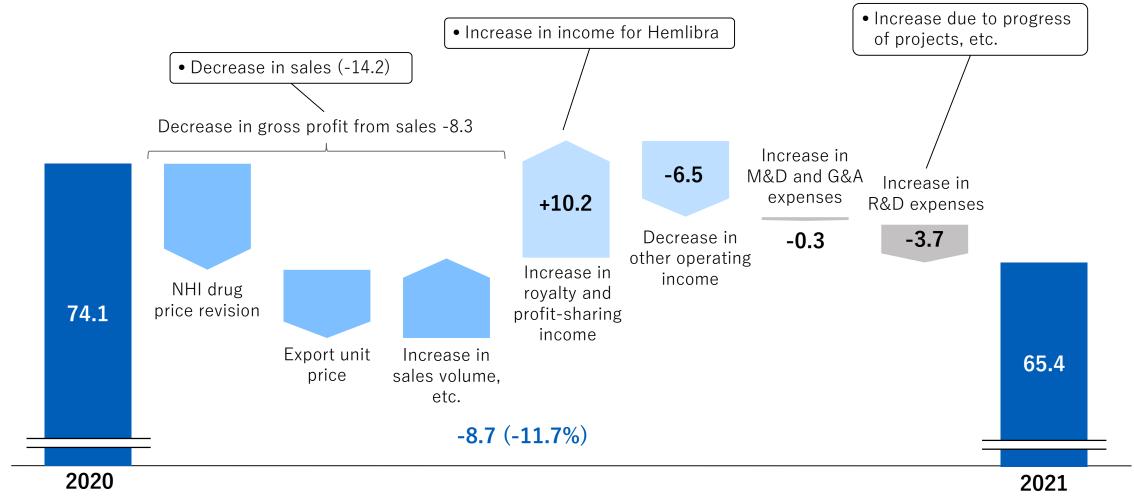
## **Export of Actemra to Roche**





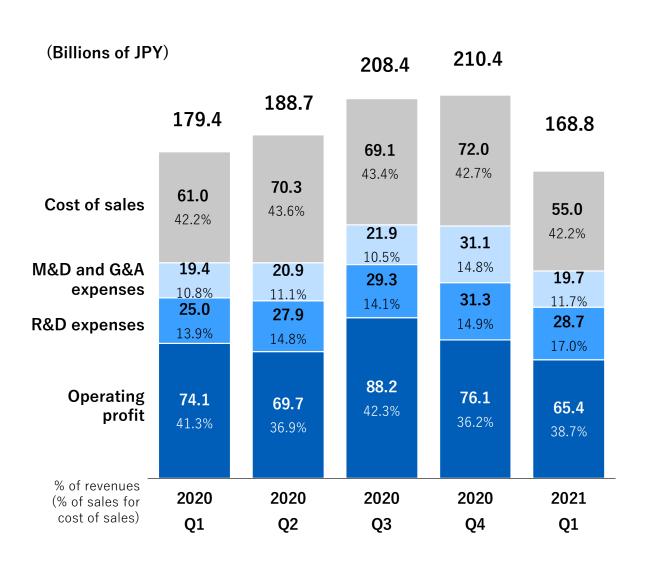
## Operating Profit Jan - Mar (Year on Year)

(Billions of JPY)





## Structure of Costs and Profit by Quarter



### vs. Year on Year (2020 Q1)

Cost of sales ratio: unchanged from 2020 Q1

R&D expenses: increase due to progress of projects, etc.

Operating profit: decrease of -8.7 (-11.7%)

### vs. Previous Quarter (2020 Q4)

Cost of sales ratio: no significant change (-0.5%pts)

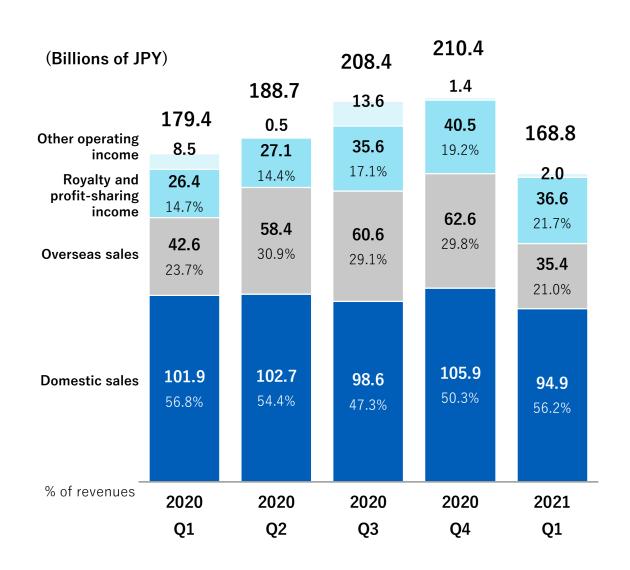
M&D and G&A expenses: decrease in line with the trend of previous years

R&D expenses: despite progress of projects, decrease according to the trend of costs incurred in previous years

Operating profit: decrease of -10.7 (-14.1%)



## Structure of Revenues by Quarter



### vs. Year on Year (2020 Q1)

Domestic sales: decrease due to NHI drug price revision and launch of generic drugs, etc.

Overseas sales: decrease in sales of Actemra

Royalty and profit-sharing income: increase in income for Hemlibra

Other operating income: decrease in one-time income

### vs. Previous Quarter (2020 Q4)

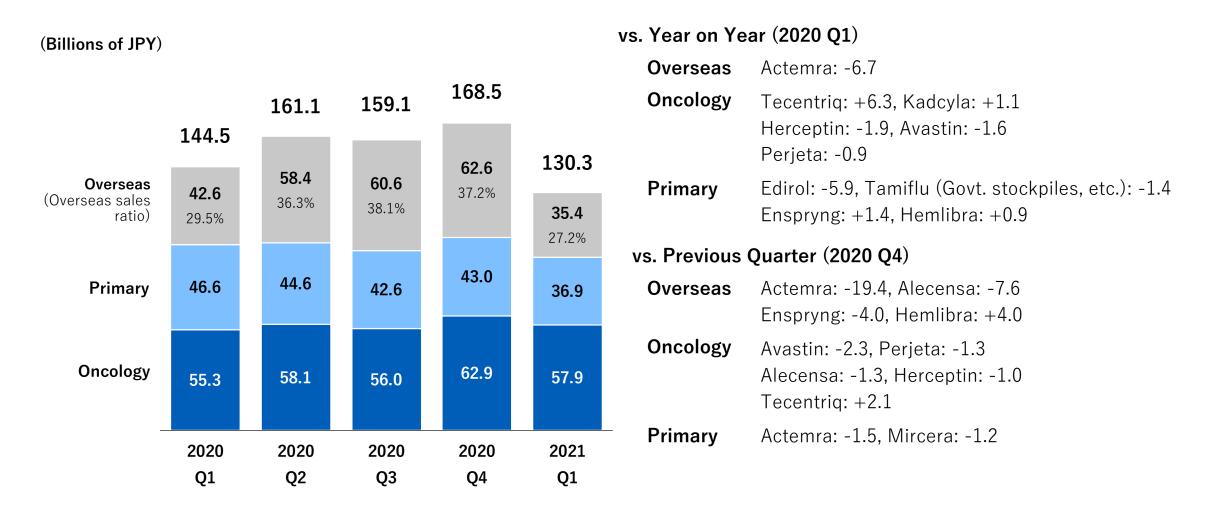
Domestic sales: decrease due to impact from launch of generic drugs in addition to the trend in previous years

Overseas sales: decrease in sales of Actemra, Alecensa, etc.

Royalty and profit-sharing income: decrease in income for Hemlibra



## Structure of Sales by Quarter



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## P/L Jan - Mar (vs. Forecast)

	Actual	Fore	cast	2020
(Billions of JPY)	2021	2021	Drograce	Progress *1
	Jan - Mar	Jan - Dec	riugiess	riogiess i
Revenues	168.8	800.0	21.1%	22.8%
Sales	130.3	631.0	20.6%	22.8%
Domestic	94.9	393.7	24.1%	24.9%
Overseas	35.4	237.3	14.9%	19.0%
Royalties and other operating income	38.6	169.0	22.8%	22.7%
Royalty and profit-sharing income	36.6	163.0	22.5%	20.4%
Other operating income	2.0	6.0	33.3%	35.3%
Cost of sales	- 55.0	- 252.5	21.8%	22.4%
( cost to sales ratio)	42.2%	40.0%	-	-
Operating expenses	- 48.5	- 227.5	21.3%	21.5%
M&D and G&A	- 19.7	- 96.0	20.5%	20.8%
Research and development	- 28.7	- 131.5	21.8%	22.0%
Operating profit	65.4	320.0	20.4%	24.1%
(operating margin)	38.7%	40.0%	-	-
Net income	48.4	232.0	20.9%	24.0%
EPS (JPY) *2	29.42	141.00	20.9%	24.0%

#### **Domestic Sales**

Progress nearly in line with forecast as total

#### Overseas sales

Progress nearly in line with forecast

### Royalty and profit-sharing income

Progress nearly in line with forecast

### Other operating income

Progress nearly in line with forecast

#### **Cost of Sales**

Cost to sales ratio nearly in line with Q1 forecast

### **Operating expenses**

Progress nearly in line with forecast

### **Operating profit**

Progress nearly in line with forecast

<sup>\*1</sup> Jan – Mar progress versus Jan – Dec

<sup>\*2</sup> Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. EPS are calculated based on the assumption that the stock split was implemented at the beginning of the fiscal year.

### FY2021 Q1 Consolidated Financial Overview (Core)



# Sales Jan - Mar (vs. Forecast)

	Actual	Fore	cast	2020
(Billions of JPY)	2021	2021	Duo 44000	Dragrass *
	Jan - Mar	Jan - Dec	Progress	Progress *
Sales	130.3	631.0	20.6%	22.8%
Domestic	94.9	393.7	24.1%	24.9%
Oncology	57.9	226.7	25.5%	23.8%
Avastin	18.8	60.5	31.1%	25.0%
Tecentriq	14.1	49.2	28.7%	20.8%
Perjeta	7.4	31.8	23.3%	24.8%
Alecensa	6.0	27.0	22.2%	21.5%
Kadcyla	3.2	13.3	24.1%	20.6%
Herceptin	2.6	10.9	23.9%	28.3%
Gazyva	1.0	5.7	17.5%	21.7%
Rituxan	1.2	5.2	23.1%	26.4%
Xeloda	0.6	2.7	22.2%	30.6%
Rozlytrek	0.1	0.9	11.1%	0.0%
Foundation Medicine	1.0	7.2	13.9%	21.4%
Other	1.8	12.3	14.6%	22.0%

	Actual	Fore	cast	2020
(Billions of JPY)	2021	2021	Б	D . *
	Jan - Mar	Jan - Dec	Progress	Progress *
Primary	36.9	167.0	22.1%	26.4%
Hemlibra	8.8	51.7	17.0%	23.2%
Actemra	9.2	38.5	23.9%	24.2%
Edirol	2.9	17.3	16.8%	31.7%
Mircera	3.4	11.7	29.1%	24.0%
Bonviva	2.0	8.5	23.5%	23.6%
CellCept	2.0	8.3	24.1%	24.2%
Oxarol	1.4	5.5	25.5%	21.9%
Enspryng	1.4	4.0	35.0%	0.0%
Tamiflu(Ordinary use)	-0.1	0.8	-12.5%	75.0%
Tamiflu(Govt. stockpiles, etc.)	1.2	1.2	100.0%	70.3%
Other	4.7	19.6	24.0%	25.8%
Overseas	35.4	237.3	14.9%	19.0%
Hemlibra	8.5	89.7	9.5%	33.0%
Actemra	17.4	85.3	20.4%	17.9%
Alecensa	6.0	44.2	13.6%	14.0%
Enspryng		3.9	0.0%	1.8%
Neutrogin	2.2	8.7	25.3%	27.8%
Other	1.2	5.4	22.2%	22.9%

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<sup>\*</sup> Jan – Mar progress versus Jan – Dec



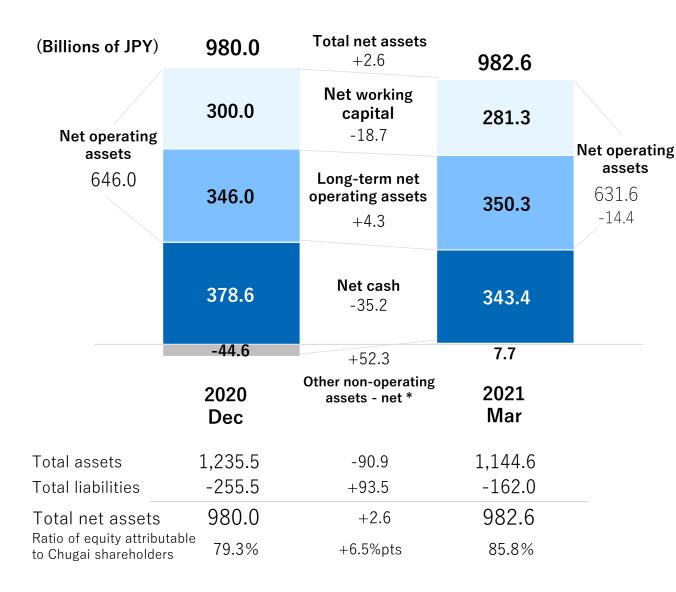
## Outline of Hemlibra Sales to Roche

(Excluding profit-sharing income and expenses in co-promotion countries)

	(Excluding profit-sharing income and expenses in co-promotion countries)					
	2017	2018	2019	2020	2021	2022 ~ …
	(Billions of JPY)					
Export sales	Export a	t initial suppl	ly price	Export at or	dinary supply pri	ce
Sales	Jan - Mar: -	0.7	0.7	8.2	8.0	
	Jan - Dec: 3.1	2.3	3.3	24.6	forecast: 88.0	
		F	Royalty income	for initial shi	pment	
Royalty		Jan - Mar:	- 6.9	17.4	23.3	
income		Jan - Dec: 2	.0 41.7	73.9	forecast: 95.0	
Royalty income for intellectual properties						



## Financial Position (vs. 2020 Year End)



### Decrease in net working capital

Decrease mainly in trade accounts receivable

### Increase in long-term net operating assets

Mainly increase in Property, plant and equipment

#### Decrease in net cash

(Please refer to the next slide)

### Increase in other non-operating assets – net

Decrease in accrued corporate tax

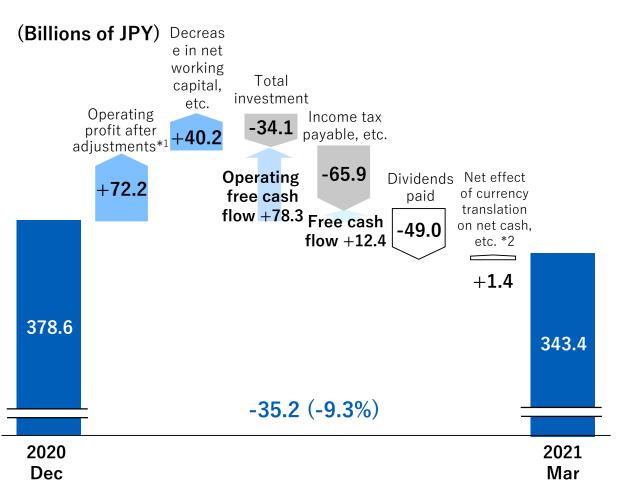
#### FX rate to the JPY (end of period)

	2020	2021
	Actual	Actual
1CHF	117.10	117.14
1EUR	126.89	129.30
1USD	103.19	110.37
1SGD	77.98	81.87

<sup>\*</sup> e.g. deferred income tax assets, accrued corporate tax, etc.

# CHUGAI

## Net Cash (vs. 2020 Year End)



Operating profit after adjustment *1	+72.2
Operating profit *1	+64.0
Depreciation, amortization and impairment *1	+7.3
Decrease in net working capital, etc.	+40.2
Total investment	-34.1
Property, plant and equipment	-28.9
Payment for lease liabilities	-2.2
Intangible assets	-2.9
Operating free cash flow	+78.3
Income tax payable, etc.	-65.9
Income tax payable	-63.3
Free cash flow	+12.4
Dividends paid	-49.0
End of FY 2020	-49.0
Net effect of currency translation on net cash, etc.	+1.4

<sup>\*1</sup> Including Non-Core (IFRS results)

<sup>\*2</sup> Net effect of currency translation on net cash, etc. = Transaction in own equity instruments + Purchase of non-controlling interests + Net effect of currency translation on net cash(\*3)

<sup>\*3</sup> Results from using different types of exchange rates when consolidating overseas subsidiaries in financial statements, i.e. net cash using end of period exchange rate and free cash flows using average exchange rate. (Chugai defines this term based on International Accounting Standard (IAS) 7 and IAS 21)



## **Appendix**

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## IFRS and Core Results Jan - Mar

	IFRS	Non-core	e items	Core
(Billions of JPY)	results	Intangible assets	Others	results
Revenues	168.8			168.8
Sales	130.3			130.3
Royalties and other operating income	38.6			38.6
Cost of sales	-55.3	+0.3		-55.0
Operating expenses	-49.5	+0.0	+1.1	-48.5
M&D and G&A	-19.8		+0.1	-19.7
Research and development	-29.7	+0.0	+1.0	-28.7
Operating profit	64.0	+0.3	+1.1	65.4
Financial account balance	0.3			0.3
Income taxes	-16.8	-0.1	-0.3	-17.2
Net income	47.4	+0.2	+0.8	48.4
EPS (JPY)	28.82			29.42

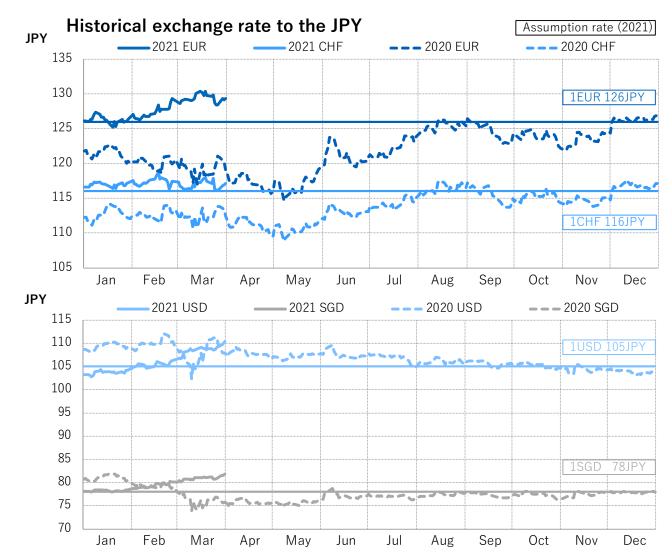
Non-Core items	(Billions of JP
<b>Intangible assets</b> Amortization	+0.3
Others Restructuring expenses	+1.1



## Impact from Foreign Exchange (vs. Forecast)

(billions of JPY)	FX impact 2021 (FX impact vs. Assumption)		
Revenues	Sales Royalties and other operating income	+0.0	
Cost of sales & Operating expenses	Cost of sales Operating expenses	-0.0 -0.2	
Operating profit	-0.2		

Market average exchange rate(JPY)	2020 Actual	2021 Assumption	2021 Actual
1CHF	112.61	116.00	117.08
1EUR	120.19	126.00	127.65
1USD	109.02	105.00	105.83
1SGD	78.72	78.00	79.47



### **FY2021 Q1 Consolidated Financial Overview (Core)**

# Outline of Arrangements for Sales, Royalties, and Expenses of Four Products to Roche



P/L account of Chugai	Details of transactions	Actemra	Alecensa	Hemlibra	Enspryng
Sales (Export to Roche)	Export to Roche at the agreed supply price	$\checkmark$	$\checkmark$	$\checkmark$	<b>√</b>
Royalty and	Royalty income *1	✓	✓	✓	✓
profit-sharing income	Profit Sharing income in co-promotion country *2	✓		✓	
	Cost sharing in co-promotion countries *2	✓		✓	
M&D expenses	Receive promotion service fee from Roche (reimbursement of expenses) *3		✓		

<sup>\*1</sup> For Hemlibra, there are two kinds of royalty income, for intellectual properties and initial shipment

<sup>\*2</sup> Main co-promotion countries are as follows:

<sup>-</sup> UK, Germany, France (for Actemra)

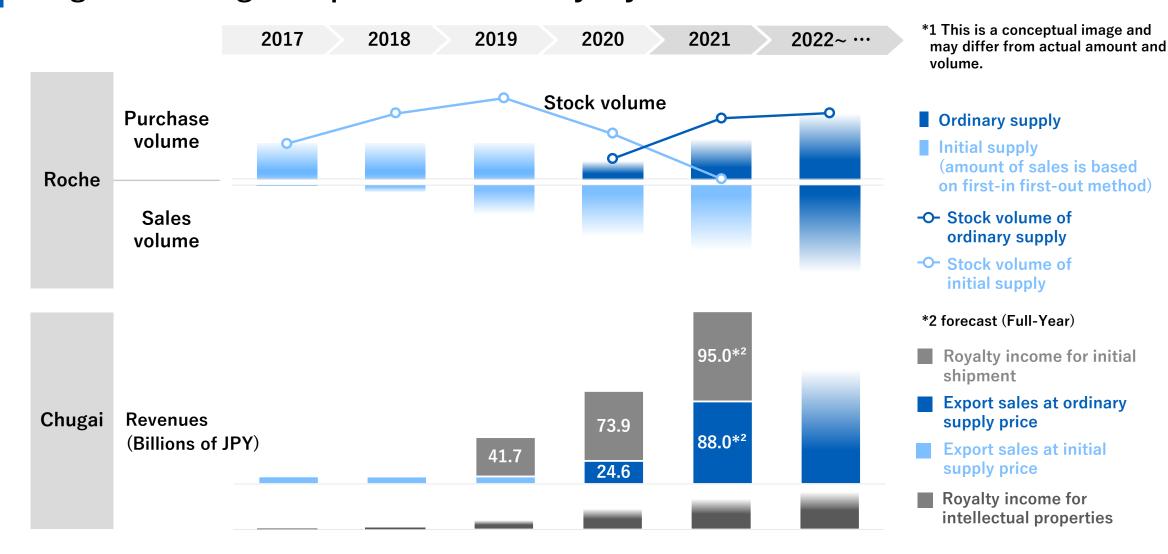
<sup>-</sup> UK, Germany, France, China (for Hemlibra)

<sup>\*3</sup> Chugai provides promotion service in UK, Germany, France

# CHUGAI Roche Roche Group

## **Outline of Hemlibra Sales to Roche**

Image for Timing of Export Sales and Royalty Income\*1





### Tetsuya Yamaguchi

Senior Vice President, Head of Project & Lifecycle Management Unit

## Projects under Development (1)



10 of April 22 2021

Ph	ase I	Phase II	P	hase III
GC33 / codrituzumab - HCC ERY974 - solid tumors RG7421 / cobimetinib - solid tumors RG7802 / cibisatamab - solid tumors RG7828 / mosunetuzumab - hematologic tumors AMY109 - solid tumors STA551 - solid tumors SPYK04 - solid tumors	RG6026 / glofitamab - hematologic tumors  RG7446 / Tecentriq   (Actemra or tiragolumab combo) - pancreatic adenocarcinoma  RG6194 / HER2-TDB - solid tumors  OBP-301* (Tecentriq/Avastin combo) - HCC	OBP-301* - esophageal cancer	AF802 (RG7853) / Alecensa - NSCLC (adjuvant)  RG7596 / Polivy - DLBCL  RG7440 / ipatasertib - prostate cancer - breast cancer RG6264 (Herceptin+Perjeta) - breast cancer (Fixed-dose combination, subcutaneous injection)  RG6058 / tiragolumab (Tecentriq combo) - SCLC - NSCLC - NSCLC(stage III) - esophageal cancer  RG6171 - breast cancer	RG435 / Avastin (Tecentriq combo) - SCLC - HCC (adjuvant) - HCC (intermediate stage) ★  RG7446 / Tecentriq - NSCLC (adjuvant) - NSCLC (neoadjuvant) - NSCLC(stage III) - urothelial carcinoma - RCC (adjuvant) - RCC - early breast cancer - ovarian cancer - HCC (adjuvant) - HCC (intermediate stage) ★ - HNC (adjuvant) - esophageal cancer

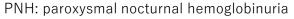
In principle, completion of first dose is regarded as the start of clinical studies in each phase.

★: Projects with advances in stages since February 4, 2021

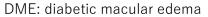
Letters in orange: in-house projects Letters in blue: in-licensed (Roche) \*in-licensed (Oncolys BioPharma Inc.) DLBCL: diffuse large B-cell lymphoma HCC: hepatocellular carcinoma SCLC: small cell lung cancer RCC: renal cell carcinoma

NSCLC: non-small cell lung cancer HNC: head and neck carcinoma TDB: T cell-dependent bispecific

# **Projects under Development (2)**



nAMD: neovascular age-related macular degeneration



NMOSD: neuromyelitis optica spectrum disorder



As of April 22, 2021

	Phase I	Phase II	Phase III	Filed
Bone & Joint			NRD101 / Suvenyl (China) - knee osteoarthritis /shoulder periarthritis	
Renal	EOS789 - Hyperphosphatemia			
Autoimmune	RG7880 (IL-22 fusion protein) - inflammatory bowel disease			
Neurology	RG7935 / prasinezumab - Parkinson's disease  GYM329 (RG6237) - neuromuscular disease  RG6100 / semorinemab - Alzheimer's disease	RG7906 / ralmitaront - schizophrenia	RG1450 / gantenerumab - Alzheimer's disease RG6042 / tominersen - Huntington's disease	SA237 (RG6168) / Enspryng (EU) - NMOSD  RG7916 / risdiplam - spinal muscular atrophy
Others	PCO371 - hypoparathyroidism  AMY109 - endometriosis  NXT007 - hemophilia A (PI/II)  RG6413+RG6412 / casiribimab+imdevimab - COVID-19★		RG7716 / faricimab - DME - nAMD - retinal vein occlusion★  MRA (RG1569) / Actemra (JPN) - COVID-19 pneumonia  ACE910 (RG6013) / Hemlibra (JPN) - Acquired hemophilia A  SKY59 (RG6107) / crovalimab - PNH	

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

Letters in orange: in-house projects Letters in blue: in-licensed (Roche)

# Key News Flows in Q1



As of April 22, 2021

Approved	Actemra Polivy FoundationOne Liquid CDx <sup>1</sup> FoundationOne CDx <sup>2</sup>	Adult patients with SSc-ILD Relapsed or refractory diffuse large B-cell lymphoma Blood-based comprehensive genomic profiling test for solid tumors Pemigatinib: biliary tract cancer ( <i>FGFR2</i> fusion genes)	March, 2021 (US) March, 2021 March, 2021 February, 2021
New to pipeline	Tecentriq + Avastin faricimab casirivimab/imdevimab <sup>3</sup>	Hepatocellular carcinoma (intermediate stage: combination with TACE) Retinal vein occlusion (CRVO / BRVO) COVID-19	P3 study(TALENTACE) P3 study P1 study
Development Discontinued	Tecentriq	Early breast cancer (HER2+, neoadjuvant)	P3 study (IMpassion050)
Late-stage Readout	Actemra Tecentriq casirivimab/imdevimab <sup>3</sup>	COVID-19 pneumonia: primary endpoint not met Non small cell lung cancer (adjuvant): primary endpoint met COVID-19: primary endpoint met	P3 study(REMDACTA) P3 study(IMpower010) P3 study(2067, 2069)
Medical Conference	risdiplam faricimab	P2/3 SUNFISH study (2-year data) P2/3 FIREFISH study (2-year data) Results of P3 studies (YOSEMITE, RINE / TENAYA, LUCERNE)	March, 2021(MDA) April, 2021(AAN) February, 2021(AED)
Others	AT-527	New oral treatment against COVID-19 in-licensed from Roche February, 2021	

Letters in orange: in-house projects Letters in blue: in-licensed (Roche)

1: FoundationOne Liquid CDx Cancer Genomic Profile

2: FoundationOne CDx Cancer Genomic Profile

3: antibody cocktail

SSc-ILD: Systemic Sclerosis-associated Interstitial Lung Disease

TACE: Transarterial chemoembolization CRVO: Central Retinal Vein Occlusion BRVO: Branch Retinal Vein Occlusion

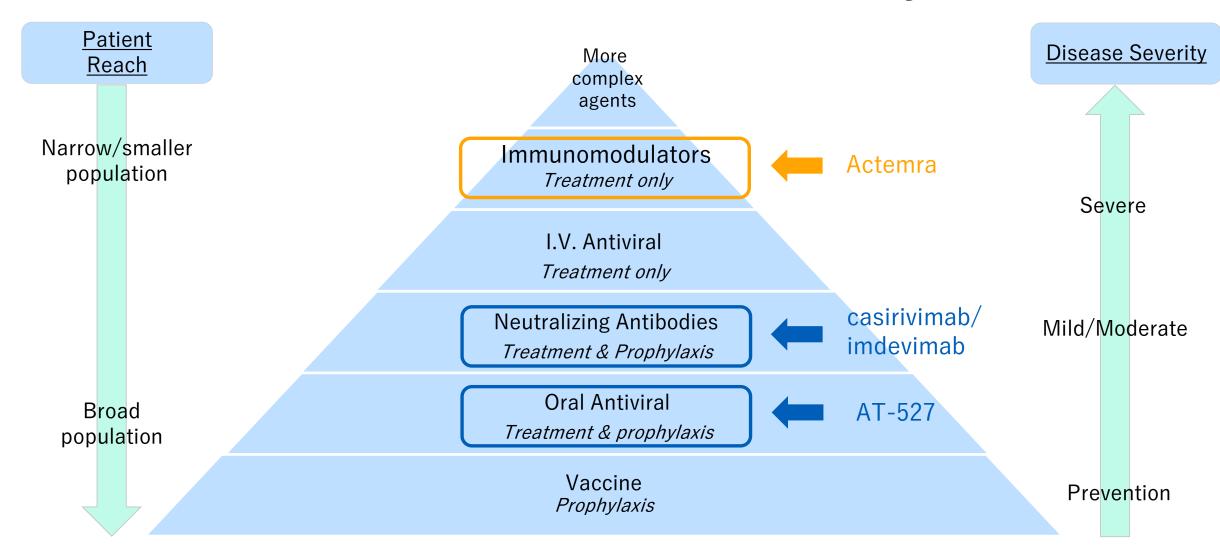
MDA: Muscular Dystrophy Association

AAN: American Academy of Neurology

AED: Angiogenesis, Exudation, and Degeneration

# Roche Roche Group

## Overview of COVID-19 Treatment Pathway





## Summary of Clinical Trials of Actemra against COVID-19

### Clinical trials sponsored by Roche / Chugai

Study	Sponsor / Region	Population	Dosing regimen	Results
J-COVACTA (Phase 3)	Chugai / Japan	Hospitalized severe patients >10	Single 8mg/kg IV dose; up to one additional dose may be given	_
COVACTA (Phase 3)	Roche / Global	Hospitalized severe patients 450	Same as above	Primary endpoint not met
EMPACTA (Phase 3)	Roche / Global	Hospitalized patients 379	Same as above	Primary endpoint met
REMDACTA (Phase 3)	Roche* / Global * collaboration with Gilead Sciences, Inc.	Hospitalized severe patients 650	Same as above** ** combination with remdesivir	Primary endpoint not met

< Next Action >

Analyze accumulated results so far in details and evaluate overall risk / benefit profile of Actemra



### SARS-CoV-2 Antibody Cocktail (casirivimab / imdevimab) (1) P3 (Study 2067) for high-risk\* non-hospitalized patients with COVID-19: Reduce hospitalization or death by 70%

Chugai starts P1 study in Japan in March, 2021 and plans to file the application during 2021

### < REGN-COV 2067 study>

- Meet primary endpoint
  - ✓ Antibody cocktail(1,200 mg / 2,400 mg intravenous administration) significantly reduced the risk of hospitalization or death by 70 % (p=0.0024), 71% (p<0.0001) respectively
- Meet all major secondary points
  - ✓ Both doses reduced the duration with symptom from 14 days to 10 days (median numbers) (p<0.0001)
- No new or serious safety signals were observed

### < REGN-COV 20145 study>

P2 study for low-risk\*\* outpatient showed significant and comparable viral load reductions across doses ranging from 300 to 2,400 mg.

<sup>\*</sup>All patients in this analysis had at least one risk factor in progressing to severe, including obesity (58%), age 50 years (51%) and cardiovascular disease, including hypertension (36%). 32

<sup>\*\*</sup> Symptomatic patients with COVID-19 having low-risk in progressing to severe, or asymptomatic patients with COVID-19



# SARS-CoV-2 Antibody Cocktail (casirivimab / imdevimab) (2) P3 (Study 2069) for household contacts of individulas infected with SARS-CoV-2\*: Reduce the risk of symptomatic COVID-19 infections by 81%

### < REGN-COV 2069 study>

- Meet primary endpoint
  - ✓ One dose of antibody cocktail(1,200 mg subcutaneous administration) to prevent infections reduced the symptomatic COVID-19 infections by 81% (p<0.0001)
- Meet all major secondary points
  - ✓ When individuals treated with antibody cocktail who still experienced a symptomatic infection, # of weeks with symptoms (mean) in symptomatic individuals was shortened to 1.2 weeks compared to 3.2 weeks with placebo (p < 0.0001)
  - ✓ In a cohort of recently-infected asymptomatic patients, antibody cocktail reduced the overall risk of progressing to symptomatic COVID-19 by 31% (p=0.0380)
- No new or serious safety signals were observed

<sup>\*</sup>Individuals without any COVID-19 symptoms who lived in the same household as an individual who tested positive to SARS-CoV-2 within the prior four days. Individuals who tested negative to RT-qPCR test and negative to antibody test. symptomatic infection: infection with symptom



## **Characteristics of Tissue and Blood Samples**

CGP by Liquid and Tissue Builds on the Strengths of Each Type of Assay



- Enable pathology assessment of overall tumor fraction before testing
- Both morphological and molecular assessments are possible<sup>1-3)</sup>
- Invasive procedure is required when taking samples<sup>1,2)</sup>
- If the quality and quantity of sample is insufficient, it might not be accurate result<sup>4)</sup>



CGP: Comprehensive Genomic Profiling ctDNA: circulating tumor DNA

- Capturing the intrapatient genomic heterogeneity<sup>5)</sup>
- Minimally invasive and easier to obtain sample<sup>1,6)</sup>
- If the amount of ctDNA in the blood is insufficient, it might not be accurate result

- 1) Francis G et al.: Int J Mol Sci 2015; 16(6): 14122-42 2) De Rubis G et al.: Trends Pharmacol Sci 2019; 40(3): 172-86
- 3) Chouaid C et al.: Lung Cancer 2014; 86(2): 170-3 4) Corcoran RB et al.: Nat Med 2020; 26(12): 1815-6 5) Scherer F: Recent Results Cancer Res 2020; 215: 213-30 6) Bardelli A et al.: Cancer Cell 2017; 31(2): 172-9

## **Projected Submissions**

(Post PoC NMEs and Products)

### in-house in-licensed (Roche) Others







RCC: renal cell carcinoma

NSCLC: non-small cell lung cancer

PNH: paroxysmal nocturnal hemoglobinuria

SCLC: small cell lung cancer HNC: head and neck carcinoma

### Filed

risdiplam (RG7916) Spinal Muscular Atrophy

casirivimab/imdevimab

(RG6413/RG6412)

COVID-19

faricimab

(RG7716)

faricimab

(RG7716)

Edema

nAMD

DLBCL: diffuse large B-cell lymphoma

NMOSD: neuromyelitis optica spectrum disorder

FDC: fixed-dose combination

nAMD: neovascular age-related macular degeneration

**HEMLIBRA** 

tiragolumab

(RG6058)

ipatasertib

(RG7440)

SCLC

(ACE910/RG6013)

Acquired hemophilia A

HCC: hepatocellular carcinoma RVO: retinal vein occlusion

faricimab (RG7716) RVO

gantenerumab (RG1450) Alzheimer's Disease

NME

tiragolumab (RG6058) **NSCLC** 

**ALECENSA** (AF802/RG7853) NSCLC (adjuvant)

**AVASTIN** (RG435) SCLC

**TECENTRIO** (RG7446) 2L RCC

**TECENTRIO** (RG7446) NSCLC (neoadjuvant)

ipatasertib (RG7440)

**Breast Cancer** 

as of April 22, 2021

**TECENTRIO** (RG7446)

**Esophageal Cancer** 

(RG6042) Huntington's Disease

tominersen

**AVASTIN** (RG435)

HCC(intermediate stage)

OBP-301\* (Telomelysin) Esophageal Cancer

**TECENTRIO** (RG7446)

HCC(intermediate stage)

giredestrant (RG6171) **Breast Cancer** 

**TECENTRIO** (RG7446) Early Breast Cancer tiragolumab (RG6058) Esophageal Cancer

**TECENTRIO** (RG7446) NSCLC (Stage III) tiragolumab (RG6058) NSCLC (Stage III)

RG6264 (FDC, sc) **Breast Cancer** 

**TECENTRIQ** (RG7446) NSCLC (adjuvant)

**POLIVY** (RG7596) 1L DLBCL

ACTEMRA (MRA/RG1569) COVID-19 pneumonia

Diabetic Macular

**AVASTIN** (RG435) HCC (adjuvant

**TECENTRIQ** (RG7446) HCC (adjuvant)

**TECENTRIQ** (RG7446) Ovarian Cancer

**TECENTRIO** (RG7446) RCC (adjuvant)

**TECENTRIO** (RG7446) Urothelial Carcinoma

**Prostate Cancer TECENTRIO** (RG7446) HNC (adjuvant)

2021 2022 2023 2024 and beyond

# CHUGAI Roche Roche Group

## FoundationOne CDx Cancer Genomic Profile

### **Companion diagnostic indications**

As of April 22, 2021

Alterations	Cancer type	Relevant drugs
Activated <i>EGFR</i> gene alterations		afatinib dimaleate, erlotinib hydrochloride, gefitinib, osimertinib mesylate
EGFR exon 20 T790M alterations	Non-small cell lung	osimertinib mesylate
ALK fusion genes	cancer (NSCLC)	alectinib hydrochloride, crizotinib, ceritinib
ROS1 fusion genes		entrectinib
MET exon 14 skipping alterations		capmatinib hydrochloride hydrate
BRAF V600E and V600K alterations	Malignant melanoma	dabrafenib mesylate, trametinib dimethyl sulfoxide, vemurafenib
ERBB2 copy number alterations (HER2 gene amplification positive)	Breast cancer	trastuzumab (genetical recombination)
KRAS/NRAS wild-type	Colorectal cancer	cetuximab (genetical recombination), panitumumab (genetical recombination)
Microsatellite Instability-High	Colorectal calicel	nivolumab (genetical recombination)
Microsatellite Instability-High	Solid tumors	pembrolizumab (genetical recombination)
NTRK1/2/3 fusion gene	Solid tulliors	entrectinib, larotrectinib sulfate
BRCA1/2 alterations	Ovarian cancer	olaparib
BRCA1/2 alterations	Prostate cancer	olaparib
FGFR2 fusion genes	Biliary tract cancer	pemigatinib

<sup>\*</sup> Underlined are the companion diagnostic features and relevant drugs currently filed for regulatory approval



## FoundationOne Liquid CDx Cancer Genomic Profile

## **Companion diagnostic indications**

As of April 22, 2021

Alterations	Cancer type	Relevant drugs
Activated <i>EGFR</i> gene alterations	Non-small cell lung cancer (NSCLC)	afatinib dimaleate, erlotinib hydrochloride, gefitinib, osimertinib mesylate
EGFR exon 20 T790M alterations		osimertinib mesylate
ALK fusion genes		alectinib hydrochloride, crizotinib, ceritinib
ROS1 fusion genes		entrectinib
NTRK1/2/3 fusion gene	Solid tumors	entrectinib

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### INNOVATION BEYOND IMAGINATION