

# SHIONOGI & CO., LTD.

Fiscal 2021 2Q Financial Results Briefing

November 2, 2021

### **Presentation**

Kyokawa: I am Kyokawa, Vice President, Corporate Communications Department of SHIONOGI & CO., Ltd.

Thank you all very much for taking time out of your busy schedules to join us today. We will now begin the financial results briefing for the first half of the fiscal year ending March 31, 2022, in a hybrid format of onsite and conference call.

I would like to introduce today's speakers. Isao Teshirogi, President & CEO.

Teshirogi: I am Teshirogi. Thank you.

**Kyokawa**: Next, Takuko Sawada, Director and Executive Vice President and Senior Vice President, Integrated Disease Care Department.

Sawada: I am Sawada. Thank you.

Kyokawa: Next, John Keller, Senior Executive Officer, Senior Vice President, Corporate Strategy Division.

Keller: I am Keller. Thank you.

Kyokawa: Lastly, Yuji Hosogai, Vice President, Finance & Accounting Department Corporate Strategy Division.

Hosogai: I am Hosogai. Thank you.

**Kyokawa**: Today, Mr. Teshirogi will give an overview of the financial results, and then we will take time for questions and answers. The end time is scheduled to be 12:00. It will be a marathon event, but please stay with us.

Now, President Teshirogi, please.

# **Financial Results (Consolidated)**



			FY2021	FY2020	(Unit: B ye Y <b>on Y</b>		
	Foreca	Forecasts		Achievement	1H	Change	Change
	Full year	1H	results	(%)	results	(%)	Change
Revenue	290.0	135.0	145.1	107.5	148.5	(2.3)	(3.4)
Operating profit	90.0	38.5	42.7	110.8	58.3	(26.8)	(15.6)
Core operating profit*	90.0	38.5	43.9	113.9	55.8	(21.4)	(12.0)
Profit before tax	115.0	48.5	50.8	104.8	70.1	(27.5)	(19.3)
Profit attributable to owners of parent	100.0	49.5	53.1	107.3	52.3	1.5	0.8

•	<b>Revenue and</b>	profit items	are achieved	1st half	forecasts
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- Both domestic and overseas businesses achieved the 1st half forecasts
- New business opportunities contributed to business performance
- Profit attributable to owners of parent increased compared to the same period of the previous year
- Continue to actively invest in R&D and new businesses

Exchange Rate (average)	FY2021 forecasts	FY2021 AprSep. results
USD (\$) – JPY (¥)	105	109.82
GBP (£) – JPY (¥)	145	152.49
EUR (€) – JPY (¥)	128	130.89



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Teshirogi: I would like to thank you again for your cooperation. I would like to start with page 4 of the

As for the results for the first half of the fiscal year, revenue was JPY145.1 billion, a 107.5% achievement rate against the first-half forecast, and a 2.3% decrease compared to the previous year. Operating profit was JPY42.7 billion, approximately 111% of the first-half forecast, and 26.8% decrease from the same period last year. Core operating profit was JPY43.9 billion, which is about 114% of the first-half forecast, but a 21.4% decrease from the same period last year.

Profit before tax was JPY50.8 billion, 104.8% of the first-half forecast, and 27% decrease from the same period last year. However, profit attributable to owners of parent was JPY53.1 billion, which is an achievement rate of over 107% against the first-half forecast and an increase from the same period last year.

While revenue decreased, net profit increased. In particular, net profit was up significantly due to the reversal of taxes., and it was also up YoY.

In general, I believe that it was a quarter in which we made a solid progress compared to the first-half forecast.

As I will explain later, the cost of goods sold was up slightly, and R&D was also up considerably, but we were able to achieve a relatively solid performance.

<sup>\*</sup> Operating profit adjusted for one-time factors (impairment losses, gain on sale of property, plant and equipment, etc.)

# **Statement of Profit or Loss (Consolidated)**



	FY2021			FY2020	Y or	n Y	(Unit: B yen)			
	Foreca		1H	Achieve	1H	Change (%)	Change	Main Variation Factors		
	Full year	1H	results	ment (%)		(70)		( 1°C Haif Forecast Comparison^^^)		
Revenue	290.0	135.0	145.1	107.5	148.5	(2.3)	(3.4)			
Cost of sales	19.8	18.5	18.6		15.4			Revenue		
	57.5	25.0	27.0	107.9	22.9	18.1	4.1	- Increase: Prescription drugs, overseas		
Gross profit	232.5	110.0	118.1	107.4	125.6	(6.0)	(7.5)	subsidiaries/export, contract manufacturing		
Selling, general &	30.7	32.6	31.6		30.2			and royalty income		
administrative	89.0	44.0	45.9	104.3	44.8	2.5	1.1	Cost of sales		
expenses	17.9	18.5	19.4		16.7			- Increase: Product mix due to growth in overseas		
R&D expenses				1127		12.4	2.2	subsidiaries/export and contract		
Other income &	52.0	25.0	28.2	112.7	24.9	13.4	3.3	manufacturing		
expenses	(1.5)	(2.5)	(1.4)	54.9	2.3*	(159.7)	(3.7)	Selling, general & administrative expenses		
	31.0	28.5	29.4		39.2			- Increase: Launch and sales activity costs associated		
Operating profit	90.0	38.5	42.7	110.8	58.3	(26.8)	(15.6)	with strong sales of Fetroja® and Fetcroja® in		
C	31.0	28.5	30.2		37.6			Europe and the United States		
Core operating profit**	90.0	38.5	43.9	113.9	55.8	(21.4)	(12.0)	· R&D		
Finance income & costs	25.0	10.0	8.2	81.7	11.9	(31.3)	(3.7)	- Increase: Accelerating of R&D activities centered on COVID-19 related (S-268019, S-217622) and 8		
D C. L C	39.7	35.9	35.0		47.3			core projects		
Profit before tax	115.0	48.5	50.8	104.8	70.1	(27.5)	(19.3)	Finance income & expenses		
Profit attributable to owners of parent	100.0	49.5	53.1	107.3	52.3	1.5	0.8	- Decrease in income: Dividend from ViiV		

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\* The provisional accounting for business combinations with Tetra was finalized in FY2020, the financial results for 1H of previous fiscal year have been retroactively adjusted \*\* Operating profit adjusted for one-time factors (impairment losses, gain on sale of property, plant and equipment, etc.)

\*\*\* Appendix p.31: Year-on-Year Comparison

Please turn to page 5. I will give you a detailed breakdown of the results.

As for revenue, royalty income of Crestor, which is decreased about JPY11 billion. This will reduce sales and directly reduce profits, but there are several factors that we were able to keep the decline at JPY3.4 billion.

1 is that overseas sales were relatively strong, and the other is that we received an up-front payment for the Integrase inhibitors that was given to ViiV. In addition, the things we had planned to do in the second half of the fiscal year, including settlement of FORTAMET and other projects, were completed to some extent in the first half of the fiscal year. I think it was a good thing that the decrease was limited to JPY3.4 billion.

However, this does not mean that there are no issues to be addressed. The cost of sales, not only for domestic sales but also for overseas items, is a little high. In addition, contract manufacturing had taken a heavy toll in the first half.

Because of the high cost of these manufacturing, we have already set up a project led by Mr. Hosogai to control the cost in the second half of the fiscal year, and we are trying to control the cost of these products for the entire year.

Compared to the relatively strong sales, gross profit was down 6% due partly to the high cost of sales, although it should have been higher.

As for selling expenses, the achievement rate of the first half forecast was 104%, but it was limited to 2.5% compared to the previous year. This was because overseas sales, in particular, have been relatively strong, while domestic sales expenses have been well controlled.

As for R&D expenses, of course, progress in development of COVID-related products has been very good, but we have not yet received all the government subsidies. Therefore, we posted a large amount of expenses. We believe that we should not save R&D expenses at this stage.

The progress rate of financial income is 81.7%. This is the dividend from ViiV. There are inevitably increase and decrease depending on the period, and it is difficult for us to completely control it.

ViiV pays dividends, in general, based on the cash balance at the end of the period. The dividend decreased partly due to a temporary decrease in ViiV's cash balance, partly due to up-front payments to us. We believe that it will return in the second half of the fiscal year.

As a result, operating profit was JPY42.7 billion, an achievement of about 111%. Profit attributable to owners of parent was JPY53.1 billion, a 1.5% increase, due to the reversal of taxes.

# **Revenue by Segment**



								(Unit: B yen)				
		F	Y2021		FY2020	Υo	n Y	Main Variation Factors (1st Half Forecast Comparison**)				
	Fore	casts										
	Full year	1H		ment (%)		(%)	Change	<ul> <li>Prescription drugs         <ul> <li>Increase: Sales of Cymbalta®</li> </ul> </li> </ul>				
Prescription drugs	94.4	46.1	47.1	102.2	47.2	(0.0)	(0.0)	- Increase: Recorded part of stockpile of Rapiacta® to the				
Overseas subsidiaries/export	31.1	12.2	17.4	142.7	11.0	58.2	6.4	Overseas substitutines/export				
Shionogi Inc.	8.4	4.2	7.9	186.8	3.3	135.7	4.5	- US: Increase: Strong sales of Fetroja®				
Fetroja®	-	-	2.9	-	0.4	573.3	2.4	- : Increase: Received a one-time payment for the transfer				
Ping An-Shionogi* /C&O	14.3	3.9	4.7	121.5	4.2	10.9	0.5	crima mereuse. mereused stocking due to concerns about				
SBV(Europe)	3.5	1.4	2.3	163.1	0.7	207.0	1.5	potential interruption of distribution by COVID-19 - EU: Increase: Strong sales of Fetcroja®				
Contract manufacturing	17.8	7.4	8.4	112.7	6.7	25.1	1.7	Contract manufacturing     Increase: Active pharmaceutical ingredient export of				
OTC and quasi-drug	15.4	6.9	6.0	88.1	5.5	10.3	0.6	dolutegravir in 2 <sup>nd</sup> Quarter partially included				
Royalty income	129.8	61.7	65.4	106.0	77.3	(15.5)	(11.9)	requirements for 3 <sup>rd</sup> Quarter				
HIV franchise	125.2	60.8	61.2	100.8	63.9	(4.2)	(2.7)					
Crestor <sup>®</sup>	1.1	-	-	-	11.1	-	(11.1)	- Decrease: Sales of ISODINE®				
Others	3.5	0.9	4.1	447.1	2.3	82.5	1.9	Royalty income				
Others	1.4	0.7	0.8	108.5	0.8	(5.4)	(0.0)	- Increase: Out-licensing agreement with ViiV for S-365598				
Total	290.0	135.0	145.1	107.5	148.5	(2.3)	(3.4)					

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Let's move on to page 6, which shows revenue by segment.

Revenue from prescription drugs exceeded the plan by 2%. Of the revenue, however, JPY1 billion was for stockpile of Rapiacta to the government. Excluding this, we were almost on track.

Overseas subsidiaries are doing relatively well. In Shionogi Inc., even if we exclude the settlement of FORTAMET, revenue from Fetroja grew significantly by JPY2.9 billion. In addition, Shionogi B.V. saw a very large growth in Fetcroja.

Ping An-Shionogi experienced a relatively solid result in the first half of the fiscal year. As I will explain later, we had originally planned for very large growth in the second half. Although the plan is for a considerable increase compared to the first half results of JPY4.7 billion, we have made a slight downward revision because the plan was indeed too large. Overall, we believe that the business of Ping An-Shionogi/C&O has been strong.

The contract manufacturing of active pharmaceuticals for Xofluza and Dolutegravir has shifted partly to September, which resulted in a YoY increase of about JPY1.7 billion, 113% achievement of first-half forecast.

For OTC and quasi-drugs, we had a very large plan for the first half of the fiscal year. 88% achievement seems to be very low, but compared to the previous year, it has grown by more than 10%.

The OTC market itself is still flat or negative, and in this environment, Shionogi Healthcare's OTC drugs are performing very well. In particular, I believe that the switch to the OTC version of Rinderon has made a significant contribution.

<sup>\*</sup> OTC and quasi-drugs also include in revenue of joint venture

<sup>\*\*</sup> Appendix p.32: Year-on-Year Comparison

As for royalty income, the achievement rate against the first-half forecast was 106%, and 100.8% for the HIV franchise in particular, which is completely in line with our plan. Due to the weakening of the dollar against the pound, it was difficult to forecast, so royalty income from HIV franchise decreased 4.2% YoY, but this was in line with our forecast.

Revenue from others, which was relatively firm, includes the out-licensing of the HIV drug to ViiV, as I mentioned earlier.

# **Revenue of Prescription Drugs in Japan**



		F\	/2021		FY2020		Y on Y	
-	Forecast Full year		1H results	Achievement (%)	1H Results	Change (%)	Change	
Cymbalta <sup>®</sup>	15.1	10.0	11.5	114.6	13.5	(14.9)	(2.0	
Intuniv <sup>®</sup>	18.2	8.5	7.6	89.0	6.0	26.5	1.	
Vyvanse <sup>®</sup>	1.0	0.4	0.3	82.8	0.1	293.5	0.	
Infectious disease drugs	17.0	4.8	5.8	120.3	4.9	18.5	0.	
Influenza franchise	7.9	0.2	1.5	-	0.1	-	1.	
OxyContin® franchise	5.0	2.6	2.5	95.3	2.8	(10.5)	(0.3	
Symproic®	3.1	1.3	1.3	96.7	1.1	17.7	0.	
Actair <sup>®</sup>	0.4	0.2	0.2	133.4	0.1	65.6	0.	
Mulpleta <sup>®</sup>	0.1	0.1	0.1	88.3	0.1	6.2	0.	
Pirespa <sup>®</sup>	3.5	1.8	2.0	111.2	2.8	(29.9)	(0.8	
Others	30.9	16.4	15.9	96.9	15.8	0.7	0.	
Crestor <sup>®</sup>	6.5	3.8	3.1	81.4	3.7	(16.2)	(0.0	
Irbetan® franchise	3.1	1.7	1.5	92.8	1.7	(9.0)	(0.2	
Prescription drugs	94.4	46.1	47.1	102.2	47.2	(0.0)	(0.0	
<products in="" included="" infectiou<="" p=""> <ul> <li>Xofluza®</li> <li>Rapiacta®</li> </ul> </products>	• FINIE	BAX® narin®		iomarin® ncomycin	• Flagyl® • Flucona	azole		
Brightpoc®Flu•Neo	• Flom			ktar®	ISODIN			

SHIONOGI Influenza franchise

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Let's move on to page 7. Revenue of prescription drugs in Japan.

In terms of the achievement rate against the first-half forecast, Cymbalta, infectious disease drugs including influenza franchise, and Pirespa are performing well.

In the case of Cymbalta and Pirespa, due to the uncertainty of the generic supply since last year, I think that the market has secured stock with our original drugs.

On the other hand, revenue of Intuniv and Vyvanse have increased 26% and 200%, respectively, compared to the previous year, but they did not reach the first-half forecast.

So, we still have some work to do for the second half.

# 1st Half Results and Progress of New Business Opportunities



### **Expansion of infectious disease**related business

- Providing COVID-19 related products and services
- Changes in each country's response to prepare for emergencies such as flu and AMR, etc.

#### Progress in development of therapeutic drugs and vaccines

- Progress of clinical trials
  - S-217622: Phase 2/3 in progress, S-268019: Phase 2/3 in progress
- In negotiation for partnering of S-217622
- Expanded indications for HISCL® TARC\* reagent
- Launched LumiraDx SARS-CoV-2 Ag Test and LumiraDx Instrument
- Initiated sewage epidemiology surveillance service for detecting SARS-CoV-2
- In discussion with governments for stockpiling of influenza drugs

### **Generating new growth drivers**

- Product introduction, M&A
- Aggressive investment for early expansion of new business
- Maximization of assets and franchises, consideration of partnering

#### Out-licensing agreement with ViiV for S-365598

- Upfront payment: £20M
- Agreed on the same royalty levels in existing Integrase Inhibitors agreement by paying a certain development cost
- Milestone for Osphena® approval (Canada)
- · Considering product introduction and M&A

#### **Others**

 One-time payment for the transfer of FORTAMET® (\$ 18M)

# Steady progress toward realization and expansion of new businesses



\* TARC (thymus and activation-regulated chemokine)
One of the chemokines driving migration of Th2 cells, a type of lymphocyte, to the site of inflammation

Please refer to page 8.

On the left side, in infectious disease-related business, we have spent most of our time working on vaccines and therapeutic agents for COVID-19. So far, we have made good progress on vaccines and therapeutic drugs in July, August, and September. As for S-217622, we are currently in the final stages of negotiation for partnering.

As for diagnostics, as I will explain later, we have decided not to commercialize SATIC during this COVID pandemic due partly to the balance with other competitors. On the other hand, we have introduced HISCL, which predicts the severity of the disease, and Lumira's products for high level quantitative and qualitative antigen test that can replace PCR. We have made some progress in this area, and our team headed by Ms. Sawada has made significant progress in sewage epidemiology, especially in the last 3 months. At the time of the Olympics and other events, we had the opportunity to examine sewage and have accumulated data.

Please refer to the right side of the page. I think the out-licensing of S-365598 was very significant. I think it is normal to not be able to get a very high royalty rate if you provide preclinical products. This deal was a very big deal for us because we were able to secure the same royalty rate as the current dolutegravir and cabotegravir by bearing a certain amount of the development cost for the future, although of course there is a cap.

In addition, Duchesnay has been steadily increasing the sales of Osphena, and we have received milestone payments for the approval in Canada. In addition, we received [GBP]18 million for the settlement of FORTAMET. Those have contributed to the sales and profit.

# Summary of the 1st Half



# Results of the 1<sup>st</sup> Half

# Smooth progress for COVID-19 projects, Core 8 projects

 Initiated Phase 2/3 trials of S-217622 and S-268019

# Achievement for 1st half forecasts of revenue and each profit item

 Achievement for 1<sup>st</sup> half forecasts of domestic and overseas businesses

# Creating value through new business opportunities

Out-licensing agreement with ViiV for S-365598

Achieved the 1<sup>st</sup> half targets for revenue and profit items while aggressively investing to address the COVID-19 pandemic and to drive medium to long term growth

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Please turn to page 9.

To recap, we made a smooth progress for COVID-19 projects, which we have spent about 80% of our research and development in.

On the other hand, it does not mean that we have not done anything for our business base, but we have achieved our plan for domestic and overseas business, and we have decided to license out HIV to ViiV as a new business development and business opportunity. We are judging that it was a solid first half.

# Major Changes from the Beginning of the 2<sup>nd</sup> half Earnings Forecast



#### Revenue

- Increased sales in Western business
  - Strong sales of cefiderocol
- Decreased sales in China business
  - Delay in contributing to sales using the online platform
- Decreased sales in Influenza franchise
  - Considering the current influenza pandemic situation
  - Recorded part of stockpile of Rapiacta® to the government in the 1st half

# Selling general and administrative expenses, R&D expenses

- Reduction of selling, general and administrative expenses by improving productivity
- Increased R&D expenses
  - Active investment in focus areas including COVID-19

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Please turn to page 11.

This has been the subject of considerable discussion within the Company and at the Board of Directors meetings. Since the first half of the fiscal year saw a certain upturn, the question is how to revise the full-year forecast, including the second half.

To put it bluntly, if a COVID-related therapeutic drug, for example, is bought up by the government or licensed out, it would be a business in the tens of billions of units. Therefore, it will be difficult to accurately include them in the forecast for the second half of the fiscal year.

Of course, we will be able to control the selling, administrative, and research and development expenses on the right side, but honestly speaking, I think it will be difficult to come up with intelligent figures for revenue and profit.

# **Revision of Earnings Forecast** (Announced on November 1, 2021)



(Unit: B yen)											
	FY2021	<b>Forcasts Ful</b>	l year	FY20	21 Forecasts	2H	FY20	20	Y	on Y	
	Forecasts (May 10)	Forecasts (Revised on Nov. 1)	Revised amount	Forecasts (May 10)	Forecasts (Revised on Nov. 1)	Revised amount	Resu	lts	Chang (%)	<sup>e</sup> Change	
Revenue	290.0	294.0	4.0	155.0	148.9	(6.1)	29	7.2	(1.1	l) (3.2)	
Operating profit	90.0	90.0	-	51.5	47.3	(4.2)	11	7.4	(23.4	1) (27.4)	
Core operating profit <sup>*</sup>	90.0	90.0	-	51.5	46.1	(5.4)	9	94.0	(4.2	2) (4.0)	
Profit before tax	115.0	115.0	-	66.5	64.2	(2.3)	14	13.0	(19.6	5) (28.0)	
Profit attributable to owners of parent	100.0	100.0	-	50.5	46.9	(3.6)	11	1.9	(10.6	5) (11.9)	
Achieve the further increase	se revenue		:s		Exchange Rate FY202 (average) (May 1		sts	FY202 Foreca ( Nov.	sts	FY2021 AprSep. results	
many uncer	tainties in th	-	there are	USD (\$	) – JPY (¥)		105	•	110	109.82	
	environment  — New business opportunities contribute to						145	•	150	152.49	
business per		ities contribt	ite to	EUR (€	GBP (£) – JPY (¥) EUR (€) – JPY (¥)			•	130	130.89	



Therefore, as you can see on page 12, We will raise 4 billion as revenue for the excess in the first half, but the remaining operating profit and below will remain unchanged at this time, which I think is the least misleading.

As we have said many times before, we have had 2 consecutive years of declining sales and profits, and we have also fallen short of our projections, so for this fiscal year, we have decided to set a minimum level that can be achieved no matter what. We have discussed this at a Board of Directors meeting at the beginning of the fiscal year.

Naturally, we have a certain amount of confidence in the increase in revenue and profits compared to the previous year, but we have left our earnings forecast unchanged because we think it would be better to provide concrete figures after the things have been decided.

 $<sup>^{\</sup>star}$  Operating profit adjusted for one-time factors (impairment losses, gain on sale of property, plant and equipment, etc.)

# Revision of Earnings forecast Statement of Profit and Loss (Consolidated)

	FY2021	Forecasts Fu	ıll year	FY2	021 Forecasts	2H	FY2020	Y on Y		(Unit: B yen)
	Forecasts (May 10)	Forecasts (Revised on Nov. 1)	Revised amount	Forecasts (May 10)	Forecasts (Revised on Nov. 1)	Revised amount	Results	Change (%)	Change	
Revenue	290.0	294.0	4.0	155.0	148.9	(6.1)	297.2	(1.1)	(3.2)	
Cost of Sales	19.8	19.4		21.0	20.2		17.7			
	57.5	57.0	(0.5)	32.5	30.0	(2.5)	52.5	8.5	4.5	
Gross profit	232.5	237.0	4.5	122.5	118.9	(3.6)	244.7	(3.1)	(7.7)	
Selling, general&	30.7	30.3		29.0	28.9		32.0			
Administrative expenses	89.0	89.0	-	45.0	43.1	(1.9)	95.1	(6.4)	(6.1)	
R&D expenses	17.9	18.9		17.4	18.3		18.3			
R&D expenses	52.0	55.5	3.5	27.0	27.3	0.3	54.2	2.3	1.3	
Other income & expenses	(1.5)	(2.5)	(1.0)	1.0	(1.1)	(2.1)	22.1	(111.3)	(24.6)	
0	31.0	30.6		33.2	31.8		39.5			
Operating profit	90.0	90.0	-	51.5	47.3	(4.2)	117.4	(23.4)	(27.4)	
Core operating profit	31.0	30.6		33.2	31.0		31.6			
Core operating profit	90.0	90.0	-	51.5	46.1	(5.4)	94.0	(4.2)	(4.0)	
Finance income costs	25.0	25.0	-	15.0	16.8	1.8	25.6	(2.3)	(0.6)	
Profit before tax	39.7	39.1		42.9	43.1		48.1			
Profit before tax	115.0	115.0	-	66.5	64.2	(2.3)	143.0	(19.6)	(28.0)	
Profit attributable to owners of parent	100.0	100.0	-	50.5	46.9	(3.6)	111.9	(10.6)	(11.9)	

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Please refer to page 13.

We have such a basic policy, so please ask John or Hosogai about the detailed figures.

First of all, we are working on operating profit and net profit, so our forecasts for the second half of the fiscal year are based on subtractive.

Going back to the revised forecast on page 12, we will start from the figures of revenue, operating profit, and net profit, which will not fall below the minimum line that we announced at the beginning of the year, and we will announce and revise the figures as events occur.

# **Revision of Earnings Forecast Revenue by Segment**



								(Unit: B	yen)
	FY2021	Forecasts F	ull year	FY20	21 Forecast	s 2H	FY2020	Y on	Υ
	Forecasts (May 10)	Forecasts (Revised on Nov.1)	Revised amount	Forecasts (May 10)	Forecasts (Revised on Nov. 1)	Revised amount	Results	Change (%)	Change
Prescription drugs	94.4	94.4	-	48.3	47.3	(1.0)	94.7	(0.3)	(0.3)
Overseas subsidiaries/export	31.1	35.0	3.8	18.9	17.5	(1.4)	24.6	41.8	10.3
Shionogi Inc.	8.4	12.7	4.3	4.2	4.8	0.6	7.5	70.1	5.2
Ping An-Shionogi* /C&O	14.3	12.3	(2.0)	10.4	7.6	(2.8)	10.1	22.3	2.2
SBV(Europe)	3.5	5.0	1.5	2.1	2.7	0.6	2.0	154.2	3.0
Contract manufacturing	17.8	17.8	-	10.4	9.5	(0.9)	19.7	(9.7)	(1.9)
OTC and quasi-drug	15.4	13.4	(2.0)	8.6	7.4	(1.2)	11.7	14.8	1.7
Royalty income	129.8	132.0	2.2	68.1	66.6	(1.5)	144.6	(8.8)	(12.7)
HIV franchise	125.2	125.2	-	64.5	64.0	(0.5)	123.4	1.5	1.9
Crestor®	1.1	-	(1.1)	1.1	-	(1.1)	16.6	-	(16.6)
Others	3.5	6.7	3.2	2.6	2.6	0.0	4.7	43.0	2.0
Others	1.4	1.4	-	0.7	0.7	(0.1)	1.8	(18.2)	(0.3)
Total	290.0	294.0	4.0	155.0	148.9	(6.1)	297.2	(1.1)	(3.2)



 $^st$  OTC and quasi-drugs also include in revenue of joint venture 4

Please move on to page 14.

I think that the domestic revenue for prescription drugs will probably remain around this level. In particular, it is difficult to reach these figures unless we secure sales for ADHD drugs, such as Vyvanse and Intuniv, which I mentioned earlier, so this is where we are focusing very hard.

The initial forecast for the influenza franchise has been left unchanged at this time. In India, the US, and some parts of Europe, influenza pandemic has been observed, but at this point, in Asia, especially in Japan and Southeast Asia, it has not been seen to any great extent yet, so we set a quite modest revenue forecast.

However, we forecast a solid revenue for Fetroja and Fetcroja of Shionogi Inc. and Shionogi B.V.

The forecast for Ping An-Shionogi has been revised downward, but JPY7.6 billion for the second half of the fiscal year is the largest figure we have ever announced. As you can see on the right side of the page, the full-year growth rate compared to the previous year is more than 22%, and we believe that this business is growing steadily. At the beginning of the year, we made a rather large forecast because we thought that we could expand sales of our C&O products, including Good Doctor in particular, and we have made some adjustments.

We have also made some revisions to OTC and quasi drug, in consideration of sales in the first half of the year. In particular, sales of cold medicines this winter are a little difficult to read. Last year, the market for cold medicines was less than 60% of that of 2 years ago. I think it is appropriate to make this downward revision, also in consideration of the sales forecast for [Pylon] PL.

However, if you look at the YoY change, it will be an increase of 15%. To the best of our knowledge, there are very few companies in the OTC market that are forecasting 15% growth on a YoY basis. I think our presence in the market is increasing significantly.

As for royalty income, we have left the forecast unchanged from the beginning of the year. As for Crestor, the negative figure of JPY16.6 billion has been left unchanged, but if AstraZeneca sells above a certain level, we will receive a small royalty. But for now, we are making a conservative forecast. We are forecasting a revenue increase of JPY4 billion, including the overdue in the first half.

# Revision of Earnings Forecast Revenue of Prescription Drugs in Japan



	FY20	21 Forecasts F	ull year	FY	2021 Forecasts	2H	FY2020	Y on	Y
	Forecasts (May 10)	Forecasts (Revised on Nov.1)	Revised amount	Forecasts (May 10)	Forecasts (Revised on Nov.1)	Revised amount	Results	Change (%)	Change
Cymbalta <sup>®</sup>	15.1	17.1	2.0	5.1	5.6	0.5	26.5	(35.3)	(9.3)
Intuniv <sup>®</sup>	18.2	16.6	(1.6)	9.7	9.0	(0.7)	13.1	27.3	3.6
Vyvanse <sup>®</sup>	1.0	1.0	-	0.7	0.7	0.1	0.3	288.1	0.8
Infectious disease drugs	17.0	16.6	(0.4)	12.2	10.9	(1.4)	9.8	70.4	6.9
Influenza franchise	7.9	7.9	-	7.7	6.4	(1.3)	0.3	-	7.6
OxyContin® franchise	5.0	5.0	-	2.4	2.5	0.1	5.3	(6.2)	(0.3)
Symproic <sup>®</sup>	3.1	3.1	-	1.8	1.9	0.0	2.3	37.4	0.8
Actair <sup>®</sup>	0.4	0.4	-	0.2	0.1	(0.1)	0.3	12.1	0.0
Mulpleta <sup>®</sup>	0.1	0.1	-	0.1	0.1	0.0	0.1	18.3	0.0
Pirespa <sup>®</sup>	3.5	3.5	-	1.7	1.5	(0.2)	5.1	(31.8)	(1.6)
Others	30.9	30.8	(0.0)	14.4	14.9	(0.5)	32.0	(3.5)	(1.1)
Crestor®	6.5	5.7	(0.8)	2.7	2.6	(0.1)	6.7	(14.5)	(1.0)
Irbetan <sup>®</sup> franchise	3.1	3.1	-	1.4	1.5	0.1	3.3	(7.7)	(0.3)
Prescription drugs	94.4	94.4	-	48.3	47.3	(1.0)	94.7	(0.3)	(0.3)
< Products included	in infectious	disease drugs	>						(Unit: B yen)
<ul> <li>Xofluza®</li> <li>Rapiacta®</li> <li>Brightpoc®Flu·l</li> </ul>	Neo	• F	INIBAX® lumarin® lomox®	• Va	niomarin® ancomycin aktar®	• Flu	gyl® iconazole DDINE®		

SHIONOGI

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Let's move on to page 15.

In terms of domestic revenue, Cymbalta exceed target in the first half of the fiscal year, so we are forecasting a positive result for this drug.

As for Intuniv, we revised downward by about JPY1.6 billion, based on the first-half result.

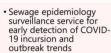
With regard to infectious diseases, it is still difficult to predict the earnings of influenza drugs, so we reduced the figure by about JPY400 million. In total, we are aiming for a figure of JPY94.4 billion for the full year.

# Shionogi's Actions for Total Care of COVID-19



#### **Epidemic** forecasting





- Conclude contracts with multiple local governments and expand services
- Under Discussion on business alliance with SHIMADZU that leverages the strengths of both parties

# **Prevention**



- Development of a recombinant vaccine for COVID-19 (S-268019)
  - initiated Phase 2/3 trial (Oct. 20)
  - Global Phase 3 trial planned
  - Planning booster test (Japan and Global)

# **Diagnosis**



- Differential diagnosis: Antigen-test kit
- Severity prediction: Th2 chemokine TARC\* kit for assisting in predicting exacerbations
- Shionogi discontinues efforts to commercialize by SATIC\* method
  - Basic research
  - continues in academia Shionogi continues to hold licenses for the SATIC method

# **Treatment**



- Discovery and development of novel antiviral drug (S-217622)
  - Phase 2/3 trial in **progress** initiated discussions
  - with FDA and EMA to conduct Global Phase 3
- · Discovery of developmental candidate peptide

# **Exacerbation** suppression



- · Licensing out asapiprant. an exacerbation controlling candidate
  - Global phase 2 trial in progress

# **Providing solutions for overwhelmed medical systems**



\* SATIC : Signal Amplification by Ternary Initiation Complexes

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Now, let me move on to future initiatives. Please refer to page 17.

I believe that we have a great deal to do as a Company to end the COVID-19 pandemic as soon as possible, and I believe that society has great expectations of us.

In particular, vaccines as prevention, second from the left, and treatment drugs, second from the right. These 2 areas will reach a major milestone in the second half of this year, and we are currently devoting almost 80% of our R&D resources to these 2 projects until March next year.

In addition, we would like to establish the trend prediction service that we are working on with Shimadzu as a permanent service.

As for diagnosis, we are in talks with various companies about antigen test kits, so we will be able to talk about it in the near future. At the risk of repeating myself, I think SATIC is very interesting as a technology. I think it is very interesting that there are so many technologies originating from Japanese universities. However, the evolution of PCR and antigen testing has been very rapid, so we have decided to stop the commercialization of the SATIC method for COVID-19 at this time because the risk is probably greater.

As for the prevention of severe symptom, we are waiting for the results of Phase II, which is being conducted by BioAge.



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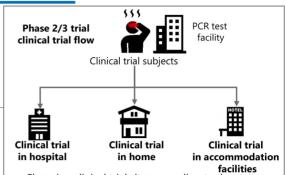
# ||||||| Development of oral therapeutic drugs (S-217622)

#### Result of phase 1 trial in japan

- Confirmed good safety and tolerability
- The target drug plasma concentration required for the viral reduction effect (as predicted from non-clinical studies) was achieved by oral administration once a day for 5 days

#### Phase 2/3 trial

- Phase 2a part (primary endpoint is change in virus titer from baseline) in progress
  - initiated clinical trials primarily at accommodation facilities in cooperation with local governments
  - Conducting flexible clinical trials in response to changes in the external environment
- Opening overseas sites to accelerate recruitment and registration
  - Candidate counties are South Korea, Singapore, Vietnam, UK, etc.



- Changing clinical trial sites according to the status of medical institutions, the number of infected people, and the disease situation
- Telemedicine + HNV\*
- Ensuring sufficient response by investigative doctors and nurses outside hospital setting



\* HNV: Home Nursing Visit (Home-visit nursing stations or home-visit doctors / home-visit nurses at home medical institutions provide visit support at the subject's home)

Let's move on to page 18. It's about S-217622.

At the end of August, there were 50,000 new cases of infection every day, and as of yesterday, the number of cases was in the single digits in both Tokyo and Osaka. So, in the first week of October, John and I decided to open the overseas trials as soon as possible.

Especially in Singapore and South Korea, where the number of infected people is increasing, the governments want to commercialize these drugs as soon as possible. It usually takes a long time to start clinical trials or to pass the IRB; however, discussions with the government and our partner companies are progressing very well, and we have already completed the setup in Korea and Singapore, and are waiting for patients. We will be able to start the trials next week at the latest.

Singapore, in particular, is experiencing 4,000 or 5,000 new cases of infection every day, despite a very high vaccination rate of about 85%. In a sense, this is something that may happen in our country in the future, or rather in various countries where vaccination is advanced.

In such a situation, it would be very useful for us to study the efficacy and safety of oral drugs. In particular, I would like to see the data for Singapore.

There was some data that the number of severe cases and deaths had unexpectedly decreased, but now it seems to be increasing again, so we would like to see the merits of early oral drug treatment, including the fact that a certain percentage of severe cases and deaths still occur even with vaccination. At the same time, there is still a very large number of infections in the United Kingdom and other countries, so we would like to add those countries.





# Development of oral therapeutic drugs (S-217622)

#### **Global Phase 3 trial**

- In discussions with FDA and EMA to initiate the global Phase 3 trial

# **Supply preparation**

Smooth progress toward completion of domestic supply preparation by the end of 2021

# **Partnering**

- Currently negotiating with multiple companies
- Prioritize companies that can generate synergies in launch speed and global production and supply



Phase 2/3 trial drug of S-217622

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Please move on to page 19.

If you look at Merck's study, the pattern in the US is that people go to the hospital only after the disease has become very serious, rather than treating people who stay at home with antiviral drug, partially due to the insurance system. The focus is on how to prevent serious illness in people with moderate disease, and how to prevent deaths.

In a sense, the patient population is different from the trials we will be conducting in Japan, Singapore, Korea, etc., and the medical implications are also different. The Global Phase III trial will focus on prevention of severe disease or how to reduce the number of deaths.

The FDA and EMA are discussing protocols and other issues, so we have not kicked off at this point, but we hope to start soon.

As I mentioned earlier, we have made good progress in preparing for the supply to 1 million to 1.2 million people at the end of the fiscal year, but there is a risk in the supply chain or in the supply situation in China. At the moment, however, we believe that we have been able to secure a good number of people.

As for partnering, we are currently negotiating with quite a few companies and hope to have a partner in place somehow by the end of the year.



# Development of recombinant protein vaccine(S-268019)

# Summary of Phase 1/2 trial dosing with new adjuvant

- Detailed results will be disclosed at the Japan Society for Vaccinology (December 4, 2021) Completion of Day 50 observation of all 60 subjects
  - Tolerability, Safety
    - Confirmed tolerability and absence of major safety issues
- **Immunogenicity** 
  - Confirmed increase in neutralizing antibody titer equal to or higher than that of convalescent serum

# Based on the above results, domestic phase 2/3 trial initiated on October 20

⇒ Recruitment of clinical trial participants has proceeded very well (Scheduled to complete recruitment in early November 2021)



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Page 20 shows about the vaccine.

We believe that we were able to obtain very good results by changing the adjuvant, and we will show the results at the Japan Society for Vaccinology meeting on December 4.

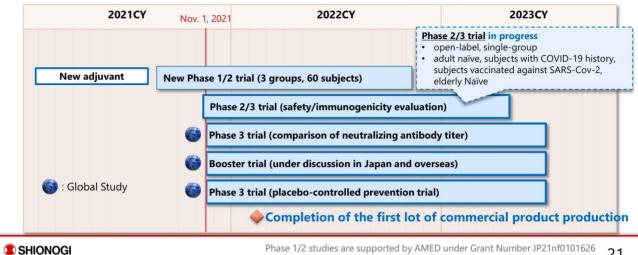
On October 20, just about 2 weeks ago, we conducted the domestic Phase II/III study, following the instruction and request from the authorities to study the safety of the drug in as many Japanese patients as possible, about 3,000 cases. We wrote it is scheduled to complete recruitment in early November, but in the first 4 days, we received more than 2,000 registrations, and it has already exceeded 3,000.

Moreover, we were told by the authorities to collect elderly patients as well, but we thought it would be difficult in Japan. However, we were able to collect 100 cases in no time. We are testing the vaccine mainly on unvaccinated people only in Japan, but we are seeing a very strong response and progress.



# Development of recombinant protein vaccine (S-268019)

# Aim to begin pivotal trials within the year and supply by next March



Phase 1/2 studies are supported by AMED under Grant Number JP21nf0101626

Please move on to page 21.

The safety/immunogenicity evaluation are underway. There are 3 remaining trials, as for 2 trials -- comparison of neutralizing antibody titer, and Phase III, placebo-controlled prevention trial -- we are hoping to kick off in November.

It may be possible to get approval for 1 or the other, but from our point of view, we want to provide a vaccine that can be used globally as soon as possible. If we can achieve at least 50%, 60%, 70%, or 80% for the true endpoint of the vaccine, placebo-controlled prevention, as other companies, then even if there is not much need in Japan, we will be able to market it globally.

The WHO has made it clear that the comparison of neutralizing antibody titer conducted by ICMRA will be used as a reference, but at this point it is not yet included in the list of recommended vaccines. Therefore, it would be important to conduct a placebo-controlled prevention trial as a Japanese vaccine.

The booster trial in the middle is a comparison of the 3rd dose between mRNA and our vaccine, which will be conducted on people, especially medical professionals, who vaccinated 2 doses of mRNA vaccine more than 6 months earlier. We will be able to kick off this trial at the end of November, and we are hoping that at least 200 cases will be performed at medical institutions in Tokyo, with about 100 cases per group.

In the end, we will have to follow up for about a year to see how the neutralizing antibodies change, so we think it is difficult to judge whether this vaccine is useful as a booster or as an additional vaccination. We would like to consider the position of the vaccine by running these 3 trials.



### **Clinical Efficacy Trial**

#### Placebo controlled onset prevention trial

Scheduled to be implemented mainly in Asia, using the onset prevention effect, which is the true endpoint, as an evaluation index

#### Phase 2/3 trial

- Accumulation of unvaccinated subjects mainly in Japan
  - Initiated from October 20, 2021, and the accumulated more than 3,000 cases (including about 100 cases each for the elderly, vaccinated subjects, and subjects with COVID-19 history)
- Assessing safety and immunogenicity

#### **Active Control Neutralizing Antibody** Comparative Study Alternative trial

Adjustments at ICMRA\* have begun, and the direction was agreed on the comparison with the approved vaccine when using the neutralizing antibody titer as an

# **Future Topics of Discussion**

#### Safety evaluation in Japanese

- Implementation of long-term safety monitoring using the app after launch
- Evaluation of safety information at the time of booster vaccination
  - > Comparison of safety assessment with RNA vaccine in exploratory booster trial in Japanese

#### Realization of "100 DAYS MISSION"

- Be prepared for any pandemic, beyond COVID-19
  - > Importance of developing organizational capability as



\* ICMRA: International Coalition of Medicines Regulatory Authorities 22

On page 22, I would like to reiterate what I just said.

As for the active control comparative study, the PMDA has made a lot of efforts at ICMRA, and we know that there is a good chance that these trials will be approved, and we are very interested in that. However, in the end, even if the vaccine is approved, there are still some uncertainties as to whether it will be a truly globally applicable vaccine.

In terms of the safety evaluation of Japanese patients, of course we will be looking at the data from the 3,000 cases, but I think that there are some problems with the data collection system in our country. At this point, spontaneous reports from the doctors are being waited for.

I think it is time to examine the safety for Japanese people in more detail. At that time, I think the right decision was to proceed with vaccination as much as possible, with prevention of disease as the primary goal.

When considering the positioning of vaccines in the future, we need to look at the safety of vaccines in the Japanese population in more detail, and express the advantages and disadvantages of mRNA, viral vectors, recombinant proteins such as ours, and inactivated vaccines. If we don't do this, at some point you will have to go to the doctor and make a choice about which vaccine to use.

When it comes to influenza, everyone uses the egg method of inactivated vaccines, so to some extent it may not matter which vaccine you use, even if the manufacturer is different. However, if we are going to provide 3 or 4 different types of vaccines with completely different modalities to medical institutions, you will need to collect data on what is best and how to decide.

# **Initiatives to Strengthen Domestic and Overseas Businesses**



#### **Domestic business**

#### Executing our disease strategy

- Dissemination of product and disease information to local and national areas by hospital medical representatives
- Cooperation between Pharmaceutical Commercial Division and Integrated Disease Care Division

### · ADHD franchise, Influenza franchise

- Increase Intuniv® prescriptions for adult patients by strengthening information provision to psychiatrists
- Activities to prepare for influenza outbreaks

#### **Overseas business**

#### US and Europe

#### Cefiderocol

- > Continue efforts to maximize value in the US and Europe
- > Implementing access framework for lowand middle-income countries

#### China

#### - Ping An-Shionogi

- > Increase sales via online medical platform
- > Focus on activities for early launch of new drugs
- > Expansion of research approaches utilizing Al technology

# Achieving top-line growth through an optimal strategy for each region



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Page 23.

Other than COVID-19, I believe that our domestic business is still weak in the sales area. Of course, we have received a certain level of evaluation from doctors for ADHD, but we have not been able to visit the adult patients for Intuniv, especially because of COVID-19, and new patients are not coming to the doctors. We still have a long way to go in this area.

As for influenza, I think it is still necessary to explain the good and bad points of Xofluza.

As for our overseas business, our Cefiderocol, as I am sure you are aware, has an advantage due to the supply problem of Zerbaxa. As this gradually returns, we need to make sure that our products are well positioned, so we are doing this in the US and Europe. At the same time, Access to Medicine has asked us how we will provide AMR products in low and middle income countries.

From the perspective of the SDGs and ESGs, we would like to improve access to these AMR products in lowand middle-income countries, and this is our challenge.

As for Ping An-Shionogi, we have started discussions with the authorities on Cefiderocol and Naldemedine. They don't say that we need no clinical trials from the beginning, so for the time being, we are taking the stance that we will do clinical trials as well, but during the course, we may receive support from doctors and be exempt from them. We would like to launch the 2 drugs from Ping An-Shionogi as soon as possible.

At the same time, as a research approach using AI technology, we have created an interesting repositioning system, which we are now planning to start clinical trials. We would like to create AI technology and take a new approach to drug development, especially in the CNS field.

# **Progress of HIV franchise by ViiV Healthcare**



Actions to maximize value with two-drug regimens and ODOVOTO long-acting regimens





#### **Dovato**

- · Switch share expansion in EU and US
  - Leading share of switch in EU
  - Confirmed long-term effectiveness and safety that reinforce switching
    - 144 weeks data in TANGO study
- On track to reach>£1bn in 2022 with further potential

# **CABENUVA** cabotegravir

- Treatment
  - >80% market access in the US
  - >2,000 PLHIV\*\*\* taking Cabenuva
  - Potential US approval of 2monthly dosing; launch early 2022
- FDA Priority Review granted for cabotegravir LA
- PDUFA action date of 23 January 2022

#### S-365598

- Characteristics
  - 3rd gen integrase strand transfer inhibitor (INSTI)
  - Potential for ultra long dose intervals (3 months+)
  - Excellent resistance profile
- Phase 1 trial scheduled to initiate by 2023

TANGO study: designed to compare switching to Dovato versus TAF\*\*\*\*-based regimen

# Continue commitment to HIV to secure medium- to long-term growth drivers



\* DTG/3TC: dolutegravir/lamivudine, \*\* CAB/RPV: cabotegravir/rilpivirine, \*\*\* PLHIV: patient living with HIV, \*\*\*\*TAF: tenofovir alafenamide

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#### Page 24.

We believe that we can be on a growth trajectory once again with Dovato and cabotegravir, especially in the next fiscal year. This is very important for us. Of course, it is difficult to see in what way COVID-19 will contribute to our sales and profits next year and the year after that, but on the other hand, we believe that we will be able to achieve solid earnings from the HIV franchise, mainly from these 2 products. After Phase I of S-365598, we would like to proceed with injections once every 6 months, beginning with once every 3 months or more.

For example, Gilead was very active in the field of functional cures about 2 or 3 years ago, but now they have teamed up with Merck and are focusing on long acting injections. This is because injections once every 3 or 6 months would be very beneficial for patients in the short term.

However, we are serious about functional cures or cures, including mRNA vaccines, and we are also in dialogue with ViiV. There may be significant progress in 2030 or so, but for now, I think the realistic course is to focus on long-acting injectable drugs.

As for prophylactic administration, the conventional oral form of cabotegravir, including Truvada, has to be taken once a day. In the case of prophylaxis, however, as you know, people who are not infected with HIV have to take it every day. If you are a patient, you can consider the risk-benefit, but for uninfected people, I think injectable drugs have a great potential.

Regarding preventive dosing, PDUFA date will be January next year, so we have very high expectations for it.

# **Flexible and Prompt Capital Strategy**





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**ROE** (%)

\* Resolution passed on March 30, 2020, and treasure shares cancelled on April 6, 2020 Values calculated based on IFRS after 2019

194

20.9

15.5

13.9

26

over11.5(Predict

Lastly, please refer to page 26.

17.5

9.2

9.4

As for shareholder returns, we would like to start by increasing the dividend by JPY2 to JPY55 this interim period. In principle, we do not reduce dividends at the end of the interim period and the end of the fiscal year. The year-end dividend last year was JPY55. For the second half of the fiscal year, we would like to think about this a little bit, especially depending on how S-217622, vaccines, and other products perform.

16.3

13.6

In terms of capital efficiency, our stock price has been relatively strong, but when we consider the total return to shareholders, we will continue to have discussions at the Board of Directors meetings with a view to flexibly conducting share buybacks and other measures.

I have talked about the results and key points of the first half. Thank you very much.

Kyokawa: Thank you very much.

# **Question & Answer**

**Kyokawa**: Now, we will take your questions for about 50 minutes. Now, Mr. Ueda.

**Ueda**: I am Ueda from Goldman Sachs Japan. I would first like to know about the progress of the clinical trials for the therapeutic agent S-217622. When will you be able to obtain the data for Phase IIa, and when do you expect the trials to be completed? You mentioned that it would be quite difficult to incorporate the data, but at this point, when do you expect the trials to be completed?

Regarding the results of the study, as you explained, your company includes patients with fairly mild illnesses or asymptomatic patients, so I think there may be more variability in the results compared to the results obtained by Merck. Could you tell us what you think about the development risks in this area and the conditions for conditional approval?

**Teshirogi**: We don't know how many cases will be included, but at this point, if we include Singapore and South Korea, several dozen cases a day is not so unrealistic.

In the first 70 to 100 cases, we would like to see how much viral reduction occurs in the 3 groups of placebo, low dose, and high dose. We receive specimens from those countries and measure them both at our laboratory and at third-party institutions, but at least on a preliminary basis, we can measure them at our laboratory. The results will be available in a few days after we receive the specimens, so we expect to have at least 100 cases of the virus by the end of November, no matter how late.

Regarding the differences between low dose, high dose, and placebo, looking at the studies by Merck and Roche, we can see that the length of time that patients are enrolled after infection is quite important in terms of viral reduction. For patients with 10 or 15 days, it is difficult to get clear data, so we limit the enrolment to 5 days. If we can enroll the patients properly, we expect that the virus reduction will be seen reasonably clearly.

The final primary endpoint will naturally include whether the verified patients become moderately or severely ill, but when we ask various specialists in Japan, they say that it is very important to eliminate the virus, especially for those who stay at home or have mild illness. Therefore, we would like to provide data as soon as possible on the extent to which the virus can be cleaned up, and then we will discuss this with the authorities.

At this point, we do not believe that there is a significant risk even if proper patients are enrolled, but I think this really depends on the situation of enrollment. As for your first question, we expect to be able to see the movement of the virus by the end of November at the latest.

**Ueda**: Thank you very much. In that case, would it be correct to say that you are still aiming for the approval by the end of this year?

**Teshirogi**: Yes, that's what we think. We had planned about 2,000 cases with 650 cases for each group. However, since Merck has submitted an EUA application for a 2-group comparison of about 370 patients with placebo, we believe that we will be able to observe the movement of the virus and the disease state at a level exceeding 300 cases. If that is the case, then I think it is well in our sights to get the approval by the end of this year.

If we are told to do all 2,000 cases exactly, it may take a little longer, depending on the patient's situation, but we would like to do cut off as soon as possible, while discussing with the Efficacy and Safety Evaluation

Committee, by somehow determining the difference in the movement of the virus or the degree to which patients with mild disease become moderately ill. For now, we are planning within the end of the year.

**Ueda**: Thank you very much. Secondly, I would like to know about the medium- to long-term outlook for the COVID-19 therapeutic agent and vaccine business. The government probably has a large amount of reserve funds until this fiscal year, so if the project is approved smoothly, I think we can expect a large contribution in this fiscal year and next fiscal year. I think there are a lot of uncertainties about how the budget will be allocated for this type of project in the next fiscal year and beyond, and whether or not it will be a project that can be expected to generate continuous income and expenses.

**Teshirogi**: First of all, with regard to the therapeutic drugs, Merck has said that their product will be available for 10 million people by the end of this year and for 20 million people next year. We are not aware of all of Merck's activities, but I think the fact that they have 10 million until the end of the year and 20 million next year is a good indication of the difficulty of manufacturing small molecules.

At that level, the therapeutic drugs are not yet available to all countries, and I think it is important to have a stockpile of them in case something happens. At the very least, assuming all goes well, it will make a significant contribution to earnings for the current and next fiscal year. I think we can hope for that somehow until about the beginning of the next year.

After that, it will be a matter of negotiation as to what form the governments of each country will take in stockpiling or otherwise. We are also talking with the US government about Xofluza, but at the moment they are busy with COVID-19, so they are asking us to wait a little longer.

If we don't maintain a certain level of stocks for influenza and COVID-19, people understand the magnitude of the economic damage when something happens. I don't think we will be able to sell them so much every year, but we are thinking of asking for buying a certain amount as a base.

As for vaccines, it may depend on the level at which the government recommends additional vaccinations, the 3rd and 4th doses. The reason why we would like to do prevention studies, even though it is very risky, is to provide our vaccine globally.

In Japan, the annual sales of influenza vaccines are consistently 30 million doses to 40 million doses. I believe that at that level, it would be a good base business. Even if sales are reduced to, say, USD10 million, or even less than USD10 million, we would like to conduct clinical trials in Asia, so that we can sell the product in those countries to some extent. We would like to make this trial a success somehow.

**Ueda**: Thank you very much. Just to confirm, when you say, "base business," is it correct that you have in mind the contribution of tens of billions of yen in revenue?

**Teshirogi**: I think the stable price of the COVID-19 vaccine globally is probably between USD50 and USD100, so if multiplied that by the number I mentioned earlier, this is the base.

**Ueda**: Thank you very much. That's all.

Kyokawa: Mr. Hashiguchi, please.

**Hashiguchi**: I am Hashiguchi from Daiwa Securities. I would like to ask you about your thoughts on the results of the Phase I/II trial of the vaccine that you mentioned on page 20. It says that you confirmed increase in neutralizing antibody titer equal to or higher than that of convalescent serum. In the paper on the Novavax vaccine, it is written that it exceeds the convalescent serum, and in the paper on mRNA vaccine, it is written that it is equal to or higher than the convalescent serum.

Of course, the effectiveness of infection prevention cannot be discussed only in terms of neutralizing antibody levels, and it may differ depending on how the results are measured, so I would like to know how your company views these results in terms of international competitiveness.

Sawada: In terms of efficacy, I honestly believe that it will be impossible to surpass mRNA.

However, looking at the deliberations of Pfizer's advisory committee on pediatric vaccination, for example, the risk-benefit balance will change depending on several scenarios of future epidemics.

In 1 of these scenarios, the risk outweighs the benefit, so I believe that the required risk-benefit balance will change in the future as new therapeutic agents become available, and we will be able to demonstrate the usefulness of this drug in this context.

Hashiguchi: Thank you very much. I have 1 more follow-up question. In Phase I/II, I think you tested 2 doses of antigen, 5μg and 10μg, but have you narrowed down the doses for future trials, or will you be doing them in parallel? What kind of final usage doses did you mean by the production capacity you mentioned earlier?

**Sawada**: We have narrowed down the dose. I think we are talking about the number of people that can be covered based on that dose.

**Hashiguchi**: You can't say here which one you narrowed it down to.

**Sawada**: We have not made any announcement at conferences yet, so please wait for December.

Hashiguchi: Yes. Thank you very much. That's all.

**Kyokawa:** Now, Mr. Kohtani, please.

**Kohtani**: I'm Kohtani from Nomura Securities. The first point I would like to ask you about is the COVID-19 treatment. The data for Molnupiravir is not yet available, so I'm trying to figure it out by looking at the Phase IIa data, but I just can't figure it out.

They ended up with a dose of 400 mg, and when looked at him 3 days later, the SARS-CoV-2 positive was reduced to 12%. It worked great. However, since the placebo was 17%, there was not much of a difference.

If they use a dose of 800 mg, the difference is between 2% and 17%. I think they are probably proceeding with this 800 mg. Viral titer has actually been reduced by 37% on day 3 versus placebo. I thought this was great too, but when I looked at it within the base, it's a viral titer of the 6th power of 10, so it's a 37% decrease. As this is the 5th power of 10, it is honestly a lot. Still, in the Phase II trial, the mortality rate at day 29 was probably half that of the placebo group.

It's a little puzzling. Given your experience in developing drugs to treat viral infections, can such clinical efficacy be achieved even if the viral titer has not changed that much? Isn't there much of a link between the reduction in viral titer and clinical efficacy? Of course, if it had a completely different effect, there might be any other point of view, but since it is a polymerase inhibitor, I don't think that would be the case, so what should we think about?

**Sawada**: When we look at tests conducted by other companies overseas, we see that they are following up with PCR. So, in that sense, they are not looking at it with viral titer. In other words, they are not properly measuring the amount of very active virus, so in that sense, they may be looking at some virus carcass. I think this is 1 of the reasons why the drug seems mild in terms of figures but is clinically effective.

**Kohtani**: If you try to measure only infectious viruses, it becomes quite a difficult test, including cultivation and so on. Because it is difficult to do that in the clinical setting, is such data being got in the trials?

**Sawada**: To be honest, overseas, they don't do it anymore because it is too much trouble. It is faster to look at the clinical results quantitatively and properly.

However, in our case, we used the viral titer even in the case of influenza, so we thought it would be better to look at it in order to look at the dose response as well, so we included it in the protocol.

Kohtani: So, does this mean that you will have some data on infectious viruses by the end of November?

**Sawada**: Although it is a hard work for the laboratory, they are doing their best.

Kohtani: You do make press releases, right? At the end of November, when you know something.

**Sawada**: I don't think we can give specific figures, etc., in the press release. We would like to avoid being unable to make presentations at conferences, so we would like to report as much as we can in the release.

**Kohtani**: I understand. The second point is about CABENUVA. Maybe this will be a question to Mr. John Keller. It was approved in January. However, when I looked at the data, I was a bit surprised to see that only 2,000 patients were administered the drug, which is the same as GSK.

In the questionnaire survey of the participants in the Phase III FLAIR and ATLAS trials, more than 90% of the participants wished a continuous injection drug, but it has reached to only 2,000 cases.

It's been 10 months, and you've reached 80% of market access in the US, so what are the hurdles? Is it simply that it's taking a long time to negotiate with payer, or is it that it's not growing fast without the switch trial data of the GEMINI trial, the one with naïve patients, SALSA and TANGO, as with the case of Dovato? Can you tell us about the current feel and prospects of cabotegravir? This is the last question.

**John**: As you know, there were two challenges in uptake for Cabenuva. One is the delay due to the COVID-19 disaster, especially the delay in switching prescriptions at medical institutions. The other is the setup of the process required for prescribing. There are two sides to this, one is dosing management and the other is insurance processing. These are very interesting if they start working well. However, due to COVID-19, the number of medical staff who can switch to Cabenuva is smaller than expected. However, we are speeding up to address this challenge. There is still a lot of interest in Cabenuva, including medical professionals, but the setup process has taken some time.

**Kohtani**: I understand the insurance part, but the medication part is basically just prescribing 30 tablets on the first day and then injecting. How difficult is it?

**John**: As you said, insurance claims are not that complicated. Only a few steps from the insurance company are needed. The problem is the switch to injection after 30 days of oral administration is complete. Most medical institutions did not give injections on a daily basis. Some large medical institutions are ready for the process, including injection of Cabenuva, due to their previous experience of cooperating in clinical trials. However, other medical institutions are not accustomed to providing medical care just for injections. Also, while some large city medical institutions accept regular visits only for injections, smaller medical institutions may require advance preparation to perform the procedure. We will take steps to improve this part of the setup.

Kohtani: I understand very well. Thank you very much.

**Kyokawa**: We would like to take 1 more question from the audience. Sakai-san.

**Sakai**: I am Sakai from Credit Suisse Securities. I think this was mentioned in Mr. Ueda's question. I believe that the data for Phase IIa of S-217622 was mentioned at the R&D Day meeting as being expected to be finalized by the end of October. I don't think there was an update on that. Can you explain more about this?

**Teshirogi**: We had thought that we would be able to proceed with the project under the situation where there were several thousand new patients in Japan, but with such a decrease in the number of patients, we were not able to collect 100 or 200 cases so easily, and this has caused a slight delay.

Therefore, we are trying to compensate for this by opening up Korea and Singapore, so we have not reached that point yet.

**Sakai**: In that case, I would like to confirm what you said at the time of R&D, that the overall schedule will remain unchanged, but is it correct to say that things are going well?

Teshirogi: Yes, that's it.

**Sakai**: I understand. Thank you. Also, I would like to ask you about HIV, or ViiV in general. I think there have been a lot of changes in the last year, including the emergence of generic Truvada. Among them, ViiV's share of the so-called prescription volume has been hovering around 14% or 15%. Gilead is up to 42% to 43% and is recovering.

Originally, Mr. President, you might say I should ask GSK about this, but I think you said that ViiV could have a market share of around 20%, but the current situation is quite difficult. Even though cabotegravir is coming out, can you update us on how you are currently talking with GSK or ViiV about this area?

**Teshirogi**: John will make a supplementary statement, but you are right that the activities have really become very stabled, or in a sense, almost immobile under the COVID pandemic.

In contrast, Gilead is making a slight recovery, while ViiV has not been able to catch up as much. However, the 2-month version of cabotegravir is a very big theme for us, and PrEP is an area that Gilead has not been able to keep up with, so these 2 will be very big catalysts for ViiV to gain market share after Dovato. We believe that this is due to the fact that COVID has made our activities almost stabled, although we will be extremely optimistic from next year onwards.

**John**: ViiV's performance was roughly on-track than expected. As for the market, COVID reduced patient visits, which reduced the overall switch market by about 30% in the United States. This is because the number of patient visits has decreased due to COVID-19, and the chances of switching prescriptions by doctors have decreased. Although the switch market is shrinking, Dovato is doing very well and is gaining more and more share of the switch market. Also, in the European market, Dovato is moving very quickly, with its excellent price and characteristics, which has increased its market share by more than 10% in major European countries. As a result, Dovato is generally above budget. Also, Cabenuva is almost on-track. Of course, we are aiming for more aggressive growth this year, including events such as approval of administration once every two months.

**Kyokawa:** Thank you very much. Now, I would like to close questions from the audience, and I would like to take questions from the participants on the phone. Please follow the instructions of the operator.

**Operator**: Please state your company name and your name when you ask your question.

Our first question comes from Mr. Yamaguchi of Citigroup Global Markets Japan. Please.

**Yamaguchi**: My name is Yamaguchi from Citi. I have 1 question. You mentioned that you are actively negotiating for the S-217622 alliance. When you talked about this before, I think you mentioned that companies that do polymerase, including those that use it in combination, would also be covered, as well as

companies that do vaccines. Of course, I believe you still don't know which, but can you give us an update on whether or not those ideas have changed?

**Teshirogi**: Thank you. You are right. We are currently negotiating with 4 or 5 companies, as Mr. Yamaguchi mentioned.

**Yamaguchi**: I understand. Also, I would like to add 1 more thing: you mentioned earlier that it is important to get manufacturing capacity.

**Teshirogi**: Thinking globally, various manufacturing plants are shifting to large-molecule products, and there are not so many companies that have the capacity to produce small-molecule products of high quality.

We believe that the companies we are negotiating with have enough capacity to do so, but to be honest, the number of small molecule factories in India and China is decreasing. Those we are now negotiating with are great candidates who can compensate for this globally, especially in low and middle income countries.

Yamaguchi: I understand. Thank you. That's all from me.

Operator: Our next question comes from Mr. Wakao of JP Morgan Securities Japan. Please.

**Wakao**: This is Wakao from JP Morgan. Thank you. First, regarding S-217622. In Mr. Ueda's first question, you told us about some of the timelines, but I'd like to ask you to confirm this again.

Now, I think you are working on it overseas as well, because the enrolment didn't go as far as you had hoped. According to your explanation, you will use the virus reduction data of 300 cases and negotiate with the MHLW and PMDA within the fiscal year to consider whether you can file an application or not. Please let me know when this clinical trial itself will reach the final stage.

**Teshirogi**: I didn't mean to say that we could definitely do it with 300 cases. I'm sorry, if my explanation was hard to understand.

In our opinion, given the power of Merck, there is a good chance that we will be able to see viral reduction or our primary endpoint in that number of patients. This is the first step.

Of course, if there is not enough power at that stage, or if the Efficacy and Safety Evaluation Committee says that we should continue, we will have to continue.

In any case, it depends on the infection situation. For example, although it is not a good omen, the number of cases in our country may suddenly return to 5,000 again. Then, the enrollment will be sooner.

Under the current situation, if we open the site to a place where there is a certain amount of active infection, I think we can manage to have more than 1,000 cases by the end of the year. However, if we do 2,000 cases at the current pace, it will inevitably be in January.

**Wakao**: I understand. In the end, I think it depends on the data, but if you can get good data for the primary endpoint, even for these 300 cases, what do you feel about whether the MHLW will approve the drug or not? How confident are you about the possibility?

**Teshirogi**: The Ministry of Health, Labour and Welfare and the PMDA say always that they will wait until they see the data, so from our point of view, there is nothing more or less to be said.

We are working on a variety of antiviral drugs, including those for influenza and HIV, and if we believe that data are sufficient, we believe that there is a great need for them in society. So, I think we can expect a certain amount of support from society.

However, the PMDA will never definitively say that this is fine, and their response is that they will wait until they see the data.

**Wakao**: I understand. Secondly, in relation to S-217622, you say that you are highly confident with 300 cases. Then, as for the AT-527, it will take some time to change the design for Phase III based on the Phase II data. The reason why the AT-527 didn't work is because of the vaccination and the infected strains, and it seems that the target patients are changed from risk-free to risk patients, and the endpoint is also changed from the time to recovery.

However, based on the results of AT-527, it seems that the viral reduction power of your company is strong, so it is not so relevant, but I would like to know what you think of the results of AT-527. Please tell us if there is anything else about your drug that we need to be careful about, or if there are any risks that we need to be aware of.

**Teshirogi**: The information disclosed is limited, and I don't think we should make a deep reference to the data of other companies. At least the S-217622 is very sharp in our model so far, so we are wondering how to think about this in human clinical practice.

Again, we are not in a position to comment on what grounds Roche has been brought to and how it will be rolled out in the future.

**Wakao**: I understand. In the case of AT-527, there seemed to be a difference in therapeutic efficacy between vaccinated and unvaccinated patients. Do you have any thoughts or ideas about how vaccinated or unvaccinated can affect the efficacy of antiviral drugs? Do you have any data on this?

**Teshirogi**: It is not easy to do this in an animal model, so it is not clear, but as I mentioned earlier, we are developing the vaccine in Singapore and South Korea, and I think there will be a large number of people who have been vaccinated and have had breakthrough infections. So we would like to see the clinical results there.

Wakao: I understand. That's all.

**Operator**: The next question comes from Ms. Kumagai of Mitsubishi UFJ Morgan Stanley Securities. Please.

**Kumagai:** I'm Kumagai from Mitsubishi UFJ Morgan Stanley. I would like to ask you 2 brief questions about your business in China. First, you have revised your plan for the second half of the fiscal year. Is this due to the delay in sales contribution by Ping An Good Doctor, or were there anything different from the initial plan? I would like to know more about this.

**Teshirogi**: Thank you. I can't say yes or no, but from our point of view, I think our target at the beginning of the fiscal year was a little too strong. We thought that Good Doctor would lead to a little more flow of generics and our OTC products, but it was a little slower than we had hoped. As for how much we can cover in the second half of this fiscal year, we thought it would be better to make a proper correction this time rather than leaving the second-half forecast unchanged.

**Kumagai**: I understand. Thank you. 1 more thing, in China, I think the President mentioned that there were some interesting drugs for repositioning. I would like to know if you can disclose anything about them, such as the disease areas. That's all.

**Teshirogi**: Thank you. At the moment, we are basically focusing on CNS with Ping An, including AI drug discovery or repositioning using AI. We are trying to combine a number of things to see if we can achieve unprecedented therapeutic effects in areas such as schizophrenia and dementia. We are now working on animal models, and if all goes well, we will move on to clinical trials.

At this point, we are not working on infectious diseases or other areas at Ping An-Shionogi but are concentrating almost exclusively on CNS.

Kumagai: I understand very well. Thank you very much.

Operator: The next question will be the last. Morgan Stanley MUFG Securities, Mr. Muraoka, please.

**Muraoka**: Hello, this is Muraoka from Morgan Stanley. Thank you for letting me ask a question. I also have a question about S-217622. First, you may say I should ask Merck about this, but I think Merck recently said that they would launch a 20 million course in 2022, and that it would have a sales potential of USD5 billion to USD7 billion. If you divide this, it comes out to about USD200 to USD300. A while ago I was expecting about USD700.

What I would like to ask is whether we should be prepared for the fact that the people with whom your company is negotiating, such as the Japanese government, are thinking of that level. Or is the story completely different because it happened in another country?

**Teshirogi**: At the moment, we are considering the unit price that Merck initially responded to. We do not know what kind of development they are planning for low- and middle-income countries, so it is difficult for us to comment on that. But at least in Japan, the US and Europe, where we will be talking initially, we are thinking of using Merck's initial assumption.

**Muraoka**: Thank you very much. This may be linked to the partnering for S-217622. Of course, I think you need partners, and I understand the requirements for partners are the part of manufacturing. I'm not sure if there is really no capacity left in the world for small molecules, including for manufacturers, as the President mentioned. Does this mean that using a major CMO is not very practical?

**Teshirogi**: No, I don't mean that. We have an arrangement with Roche for the same antiviral drug, Xofluza, but for COVID-19, we would like to make a new arrangement that will bring more profit to us.

When we think about how we can provide products, including ethics, especially to low and middle income countries, John may disagree, but I think it is still difficult to say whether we can do everything on our own on a global scale.

However, compared to Xofluza which we provide to Roche, we are thinking of a completely different arrangement so that we will gain great value.

**Muraoka**: I understand. In this context, do you consider CMOs as the incidental second or third priority? First of all, profit is important.

**Teshirogi**: We don't think that if we work with CMOs only and secure the volume, we will be able to solve this problem.

Muraoka: Okay, thank you very much. That's all.

**Kyokawa**: We have a little more time. Hyogo-san, please.

**Hyogo**: I am Hyogo from Mitsubishi UFJ Trust and Banking Corporation. Let me ask you 1 question that is not related to COVID-19. In October, there was talk of collaboration with Hitachi. Hitachi is providing solutions in

various industries in the Lumada business, and looking at their slides, I think it is recognized as a very growing business. In this context, what kind of value-added effects and positive effects on the DX strategy can be expected for your company as a pharmaceutical company by collaborating with Hitachi?

Since the Lumada business is a major focus for Hitachi, it should be of benefit to your company, and I don't think you are thinking about simple outsourcing. Excuse me for not relating to COVID-19.

**Sawada**: It is very difficult to give a proper answer. I am very sorry. At this point we have decided that we will only work together on the outsourcing of operation and maintenance and part of system development.

However, we have been talking with Hitachi for a long time, so if there is a new business opportunity, not only with Hitachi, we would like to consider a new joint venture or a new collaboration.

**Hyogo**: So now, you are saying that maintenance and operation and maintenance will contribute to efficiency, and that is the primary focus, and that you will think about additional things in the future, is that correct?

**Sawada**: Yes. In that sense, I think we will have more opportunities to talk with them.

**Hyogo**: I understand. If you could explain your company's DX strategy at some point, please do so separately.

**Kyokawa**: We still have 2 minutes left. Akahane-san.

**Akahane**: Thank you very much. Tokai Tokyo, Akahane. 2 brief questions. First, I think that Cymbalta is the one that is underpinning the earnings. You revised the amount of Cymbalta upward by JPY500 million in the first half, and I believe 17 generic manufacturers joined, but they are all lagging behind, aren't they?

However, Towa and Sawai finally launched in August and September, respectively, and the forecast for the second half of the fiscal year was revised upward by JPY500 million. However, there are many hospitals that do not want to use them because of the quality problems of generic manufacturers.

I've been asking this to the generic manufacturers, but they all say different things. Now, especially Cymbalta is the target products of the generic manufacturers. Please tell us what kind of image you have of the new generic drugs. This is the first point.

**Sawada**: People are still quite wary of the products of certain generic manufacturers. However, there are some companies that provide a stable supply of generic products, and where such companies are entering, they are using generic products more and more. I think we will try our best to maintain our brand while assessing that. Therefore, we have still some opportunities than previously thought.

**Akahane**: You are forecasting JPY5.6 billion for the second half of the fiscal year. Is this fairly firm, considering the confusion in generics? Is it safe to assume that there is a possibility of a little more growth?

**Sawada**: No, this is neither firm nor very aggressive. In a way, I believe that we have drawn a medium baseline. The confusion is coming to an end, and the companies that are wanted to avoid have been limited.

**Akahane**: I understand very well. Also, regarding S-217622, I heard that a certain medical network company is conducting a clinical trial of this, and they were very concerned about the number of patients. You mentioned you will conduct in Singapore and South Korea, but do you mean that you will outsource the clinical trials to other overseas CROs?

**Teshirogi**: We are not in a position to disclose all the arrangements yet, I am sorry. However, we have some companies with whom we have relationships, so we have managed to secure cases through a combination of those companies and CROs.

**Akahane**: I understand. Thank you very much.

**Kyokawa**: Thank you. This concludes the first-half earnings presentation for the fiscal year ending March 31, 2022 of SHIONOGI & CO., LTD. Thank you very much.

[END]