

Supplementary Financial Data (IFRS) for the Year Ended March 31, 2021

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May 12, 2021

Sumitomo Dainippon Pharma Co., Ltd.

- This material contains forecasts, projections, targets, plans, and other forward-looking statements regarding the Group's financial results and other data. Such forward-looking statements are based on the Company's assumptions, estimates, outlook, and other judgments made in light of information available at the time of preparation of such statements and involve both known and unknown risks and uncertainties. Accordingly, plans, goals, and other statements may not be realized as described, and actual financial results, success/failure or progress of development, and other projections may differ materially from those presented herein.
- All values are rounded. Therefore totals may not be consistent with aggregated figures.

I. Consolidated Financial Highlights

1. Consolidated Statement of Profit or Loss (Core Basis)

(Billions of yen)

	FY2019	FY2020	Change % YoY	FY2021 (Forecast)	Change % YoY
Revenue	482.8	516.0	6.9	578.0	12.0
Cost of sales *1	128.3	137.5	7.1	156.0	13.5
Gross profit	354.4	378.5	6.8	422.0	11.5
SG&A expenses *1	190.0	211.8	11.5	263.0	24.2
R&D expenses *1	92.6	97.1	4.8	95.0	(2.1)
Other operating income/expenses *2	0.2	(0.0)		-	
Core operating profit	72.0	69.6	(3.3)	64.0	(8.0)
Changes in fair value of contingent consideration (negative number indicates loss)	48.5	22.5		(1.0)	
Other non-recurring items *3 (negative number indicates loss)	(37.2)	(20.8)		(2.0)	
Operating profit	83.2	71.2	(14.4)	61.0	(14.4)
Net profit	35.9	36.8	2.5	N/A	
Net profit attributable to owners of the parent	40.8	56.2	38.0	41.0	(27.1)
Basic earnings per share (yen)	102.58	141.50		103.20	
Net profit/ Equity attributable to owners of the parent (ROE)	7.9%	10.1%		6.9%	
Return on invested capital (ROIC)	3.3%	3.1%		N/A	
Payout ratio	27.3%	19.8%		27.1%	

2. Consolidated Statement of Profit or Loss (Full Basis)

(Billions of yen)

	FY2019	FY2020	Change % YoY
Revenue	482.7	516.0	6.9
Cost of sales	129.7	137.8	6.2
Gross profit	353.1	378.2	7.1
SG&A expenses	154.3	190.4	23.3
R&D expenses	115.1	132.7	15.3
Other operating income/expenses	(0.4)	16.1	
Operating profit	83.2	71.2	(14.4)
Finance income/costs	0.7	6.6	
Profit before taxes	83.9	77.9	(7.3)
Income tax expenses	48.0	41.0	
Net profit	35.9	36.8	2.5
Net profit attributable to owners of the parent	40.8	56.2	38.0

*1 Exclude non-recurring items (impairment loss, changes in fair value of contingent consideration, etc.)

*2 "share of P/L of associates accounted for using equity method"

*3 Non-recurring items ("other operating income and expenses" except for *2 items, impairment loss, etc.)

3. Consolidated Statement of Cash Flows

(Billions of yen)

	FY2019	FY2020
Net cash provided by operating activities	46.1	135.6
Net cash provided by (used in) investing activities	(312.7)	8.9
Net cash provided by (used in) financing activities	231.1	(57.2)
Cash and cash equivalents at the end of period	101.7	193.7

4. Foreign Exchange Rates

	FY2019		FY2020		FY2021 assumption	Forex sensitivity FY2021 (Impact of yen depreciation by ¥1)	
	Period end rate	Average rate	Period end rate	Average rate	Average rate	Revenue	Core operating profit
Yen / USD	108.8	108.7	110.7	106.1	110.0	3.2	(0.2)
Yen / RMB	15.3	15.6	16.9	15.7	16.5	1.8	0.5

(Billions of yen)

5. Capital Expenditures/ Depreciation and Amortization	FY2019	FY2020	Change	FY2021 (Forecast)	Change
Capital expenditures	12.0	12.7	0.7	12.0	(0.7)
Depreciation of Property, plant and equipment	10.5	10.6	0.1	10.1	(0.5)
Amortization of Intangible assets	6.9	12.0	5.2	33.9	21.9
Related to products (patent rights/ marketing rights) included in above	4.4	9.6	5.1	31.2	21.6

(Billions of yen)

Note: The amount of capital expenditures are for tangible fixed assets and software.

Major capital expenditure project in FY2021 (continued)

Reinforcement of production facilities, total budget ¥2.0billion, to be completed in FY2022

Establishment of manufacturing facility for regenerative medicine and cell therapy, total budget ¥1.1billion, to be completed in FY2021

II. Consolidated Statement of Profit or Loss

1. Consolidated Statement of Profit or Loss (Core Basis)

(Billions of yen)

	FY2019	FY2020	Change	Change %	
Revenue	482.8	516.0	33.2	6.9	←
Overseas revenue	307.8	327.3	19.5	6.3	
% of Revenue	63.8%	63.4%			
Cost of sales	128.3	137.5	9.1	7.1	
% of Revenue	26.6%	26.6%			
Gross profit	354.4	378.5	24.0	6.8	
SG&A expenses	190.0	211.8	21.8	11.5	← • Include Sumitovant +39.9
Labor costs	80.7	100.1	19.4	24.0	← • Include Sumitovant +22.2
Advertising and promotion costs	22.7	19.6	(3.1)	(13.8)	
Sales promotion costs	15.1	17.8	2.7	18.2	
Amortization/Depreciation	11.3	16.7	5.4	48.2	
Others	60.2	57.6	(2.6)	(4.4)	
R&D expenses	92.6	97.1	4.5	4.8	← • Include Sumitovant 15.5
% of Revenue	19.2%	18.8%			
Other operating income/expenses	0.2	(0.0)	(0.2)		
Core operating profit	72.0	69.6	(2.4)	(3.3)	
Changes in fair value of contingent consideration *	48.5	22.5	(26.0)		
Other non-recurring items *	(37.2)	(20.8)	16.4		
Operating profit	83.2	71.2	(12.0)	(14.4)	
Finance income	3.6	9.2	5.6		
Finance costs	2.9	2.6	(0.3)		
Profit before taxes	83.9	77.9	(6.1)	(7.3)	
Income tax expenses	48.0	41.0	(7.0)		← • FY19: Reversal of deferred tax assets in U.S.
Net profit	35.9	36.8	0.9	2.5	
Net profit attributable to owners of the parent	40.8	56.2	15.5	38.0	

	¥billion	Change	FX rate
Japan	12.8		
North America	19.2	(6.9)	
China	(0.8)	0.1	
Other Regions	2.4		
Other	(0.5)		

Changes in fair value of contingent consideration	FY19	FY20
LONHALA®MAGNAIR®	*8.7	-
former BBI	*26.2	*17.0
former Tolero	*13.6	*5.5

* Decrease in fair value by review of business plan (cost reversal)

• FY19: Impairment loss of IPR&D
FY20: Gain on sale of fixed assets and impairment loss of IPR&D

* Negative number indicates loss.

2. Adjustments to Core Operating Profit

(Billions of yen)

FY2020 Results	Full Basis	Core Basis	Adjustment	Major adjustment items
Revenue	516.0	516.0	-	
Cost of sales	137.8	137.5	(0.3)	
Gross profit	378.2	378.5	0.3	
SG&A expenses	190.4	211.8	21.4	Changes in fair value of contingent consideration 22.5 Business structure improvement expenses (0.9)
R&D expenses	132.7	97.1	(35.6)	Impairment losses (35.4)
Other operating income	17.7	(0.0)	(17.7)	Gain on sale of former Ibaraki plant (16.7)
Other operating expenses	1.6	-	(1.6)	
Operating profit	71.2	69.6	(1.6)	

III. Segment Information (Core Basis)

(Billions of yen)

FY2020 Results	Pharmaceuticals Business					Other Business	Total
	Japan	North America	China	Other Regions	Subtotal		
Revenue (Sales to customers)	152.5	281.5	27.8	17.2	479.1	36.9	516.0
Cost of sales	77.5	20.8	5.4	5.7	109.4	28.1	137.5
Gross profit	75.1	260.7	22.5	11.5	369.8	8.7	378.5
SG&A expenses	50.8	143.8	9.2	2.8	206.7	5.1	211.8
Core segment profit	24.3	116.9	13.2	8.7	163.1	3.6	166.7
R&D expenses *1					96.2	0.9	97.1
Other operating income/expenses (Core basis)*2					(0.0)	(0.0)	(0.0)
Core operating profit					66.9	2.7	69.6

(Billions of yen)

FY2021 Forecasts	Pharmaceuticals Business					Other Business	Total
	Japan	North America	China	Other Regions	Subtotal		
Revenue (Sales to customers)	150.0	349.7	29.8	10.3	539.8	38.2	578.0
Cost of sales	78.1	38.5	5.5	4.6	126.7	29.3	156.0
Gross profit	71.9	311.2	24.3	5.7	413.1	8.9	422.0
SG&A expenses	52.9	191.9	10.9	1.6	257.3	5.7	263.0
Core segment profit	19.0	119.3	13.4	4.1	155.8	3.2	159.0
R&D expenses *1					94.0	1.0	95.0
Other operating income/expenses (Core basis)*2					-	-	-
Core operating profit					61.8	2.2	64.0

(Billions of yen)

(Ref.) FY2019 Results	Pharmaceuticals Business					Other Business	Total
	Japan	North America	China	Other Regions	Subtotal		
Revenue (Sales to customers)	139.7	262.3	28.6	14.8	445.4	37.4	482.8
Cost of sales	65.0	24.0	5.4	5.0	99.5	28.9	128.3
Gross profit	74.7	238.3	23.2	9.8	346.0	8.4	354.4
SG&A expenses	51.8	120.8	8.8	3.4	184.8	5.2	190.0
Core segment profit	22.9	117.5	14.4	6.4	161.2	3.2	164.4
R&D expenses *1					91.7	0.9	92.6
Other operating income/expenses (Core basis)*2					0.1	0.0	0.2
Core operating profit					69.7	2.3	72.0

*1 R&D expenses for pharmaceuticals business are controlled globally and not allocated to each segment.

*2 P/L of associates accounted for using equity method

IV. Revenues Information

1. Sales of Pharmaceuticals Business (Sales to customers)

(Billions of yen)

Segment	FY2019	FY2020	Change	Change %	FY2021 (Forecast)
Japan	139.7	152.5	12.8	9.2	150.0
North America	262.3	281.5	19.2	7.3	349.7
China	28.6	27.8	(0.8)	(2.7)	29.8
Other Regions	14.8	17.2	2.4	16.5	10.3

2. Sales of Major Products (1)

(Invoice price basis, Billions of yen)

Brand name Therapeutic indication	FY2019	FY2020	Change	Change %	FY2021 (Forecast)
Japan					
Promoted products					
Equa[®]/EquMet[®] *1 Therapeutic agent for type 2 diabetes (Nov. 2019~)	17.1	40.1	23.0	134.1	37.4
Trulicity[®] *2 Therapeutic agent for type 2 diabetes	30.0	33.9	3.9	13.0	38.2
TRERIEF[®] Therapeutic agent for Parkinson's disease	16.2	16.2	0.0	0.0	17.9
REPLAGAL[®] Therapeutic agent for Fabry disease	13.3	13.8	0.5	3.4	13.8
METGLUCO[®] Therapeutic agent for type 2 diabetes	9.6	9.1	(0.5)	(5.0)	6.9
LATUDA[®] Atypical antipsychotic (Jun. 2020~)	—	2.4	2.4	—	6.7
LONASEN[®] Tape Atypical antipsychotic (Sep. 2019~)	0.5	1.3	0.7	142.0	2.5
Other products					
AMLODIN[®] Therapeutic agent for hypertension and angina pectoris	7.6	6.5	(1.1)	(14.4)	5.0
Authorized Generics	7.4	8.0	0.6	7.6	10.1

*1 Excluding promotion fee revenue

*2 Trulicity[®] revenue is shown by NHI price.

2. Sales of Major Products (2)

					(Billions of yen)
Brand name Therapeutic indication	FY2019	FY2020	Change	Change %	FY2021 (Forecast)
North America					
LATUDA [®] Atypical antipsychotic	189.5	206.5	17.0	9.0	220.4
BROVANA [®] Therapeutic agent for COPD	34.5	29.1	(5.4)	(15.5)	11.7
APTIOM [®] Antiepileptic	23.4	25.7	2.3	9.9	27.4
KYNMOBI [™] OFF episodes associated with Parkinson's disease (Sep. 2020~)	—	0.2	0.2	—	3.1
China					
MEROPEN [®] Carbapenem antibiotic	24.1	22.5	(1.6)	(6.5)	22.5
Other Regions					
MEROPEN [®] Carbapenem antibiotic	8.1	6.4	(1.7)	(20.6)	5.7

					(Millions of dollar)
Brand name	FY2019	FY2020	Change	Change %	FY2021 (Forecast)
LATUDA [®]	1,743	1,946	203	11.6	2,004
BROVANA [®]	317	274	(43)	(13.5)	106
APTIOM [®]	215	242	27	12.6	249
KYNMOBI [™]	—	2	2	—	28

V. Consolidated Statement of Financial Position

(Billions of yen)

	Mar.31 2020	Mar. 31 2021	Change
Assets	1,256.5	1,308.1	51.6
Non-current assets	892.4	848.3	(44.1)
Property, plant and equipment	65.7	65.0	(0.8)
Goodwill	173.5	176.5	3.0
Intangible assets	421.0	383.4	(37.6)
Patent rights/Marketing rights	8.5	210.7	202.1
In-process R&D	405.5	165.9	(239.6)
Others	7.0	6.8	(0.2)
Other financial assets	200.9	193.0	(7.9)
Other non-current assets	4.2	10.2	6.1
Deferred tax assets	27.1	20.2	(6.9)
Current assets	364.1	459.8	95.7
Inventories	79.4	92.2	12.8
Trade and other receivables	134.5	135.9	1.4
Other financial assets	28.7	29.5	0.8
Other current assets	15.5	8.5	(7.0)
Cash and cash equivalents	101.7	193.7	92.0
Subtotal	359.8	459.8	100.0
Assets held for sale	4.3	—	(4.3)
Liabilities	620.7	659.9	39.3
Non-current liabilities	124.2	381.8	257.6
Bonds and borrowings	25.0	263.9	238.8
Other financial liabilities	41.3	21.4	(19.9)
Retirement benefit liabilities	23.9	15.1	(8.8)
Other non-current liabilities	7.2	53.0	45.8
Deferred tax liabilities	26.8	28.4	1.7
Current liabilities	496.5	278.1	(218.4)
Borrowings	273.0	10.0	(263.0)
Trade and other payables	62.3	64.6	2.4
Other financial liabilities	13.9	23.3	9.4
Income taxes payable	22.6	24.5	1.9
Provisions	84.6	99.9	15.2
Other current liabilities	40.1	55.8	15.7
Equity	635.9	648.2	12.3
Share capital	22.4	22.4	—
Capital surplus	17.8	15.9	(2.0)
Treasury shares	(0.7)	(0.7)	(0.0)
Retained earnings	457.3	508.7	51.3
Other components of equity	35.8	34.3	(1.5)
Equity attributable to owners of the parent	532.7	580.6	47.9
Non-controlling interests	103.2	67.6	(35.6)

The related figures as of Mar. 31 2020 have been retrospectively adjusted due to the finalization in Q3FY20 of the purchase price allocation of Sumitovant, which was acquired in Dec. 2019.

Goodwill	20/3	21/3
Other than oncology(SDPO)	149.6	152.3
Oncology(SDPO)	23.8	24.2

Major patent rights	20/3	21/3
KYNMOBI™ (apomorphine)	-	*51.3
ORGOVYX™ (relugolix)	-	*62.3
GEMTESA® (vibegron)	-	*91.3

*Transferred from IPR&D

Major IPR&D	20/3	21/3
KYNMOBI™ (apomorphine)	54.1	* -
former BBI products	27.6	** -
former Tolero products	26.1	**17.7
relugolix	193.2	*133.2
vibegron	90.0	* -

*Transferred to Patent rights

**Decrease by impairment

Completed selling procedure of the former Ibaraki plant

Total bonds and borrowings
298.0 → 273.8
Shifted to long-term funding from bridge loans through issuance of subordinated bonds and refinancing to long-term borrowings

Deferred revenue increased due to upfront of the collaborative agreement

Contingent consideration liabilities	20/3	21/3	Total probable payment (Max)
former BBI	17.4	* -	—
former Tolero	13.8	*8.3	\$370M
Total	31.2	8.3	

Included in "Other financial liabilities (Non-current/Current)"

* Decrease in fair value by review of business plan

Deferred revenue increased due to upfront of the collaborative agreement

Urovant has become wholly-owned subsidiary

VI. Changes in Quarterly Results

(Billions of yen)

Core basis	FY2019				FY2020			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Revenue	117.5	113.1	126.4	125.7	133.9	127.6	133.3	121.2
Cost of sales	28.8	27.3	37.0	35.3	36.0	34.7	34.1	32.7
Gross profit	88.6	85.9	89.4	90.5	97.9	92.9	99.2	88.5
SG&A expenses	46.3	42.4	49.8	51.4	47.8	45.8	52.1	66.0
R&D expenses	20.0	21.0	20.2	31.4	25.7	23.5	22.5	25.4
Other operating income/expenses	0.0	0.0	0.1	0.0	(0.0)	(0.0)	0.0	(0.0)
Core operating profit	22.3	22.5	19.5	7.7	24.4	23.6	24.6	(3.0)
Changes in fair value of contingent consideration (negative number indicates loss)	18.5	23.3	(0.9)	7.7	(1.2)	1.3	(0.4)	22.8
Other non-recurring items (negative number indicates loss)	(0.3)	(19.4)	(3.9)	(13.6)	0.1	(0.6)	15.9	(36.2)
Operating profit	40.4	26.4	14.6	1.8	23.3	24.3	40.0	(16.3)
Net profit	6.7	23.6	13.6	(8.1)	15.6	14.8	27.6	(21.1)
Net profit attributable to owners of the parent	6.7	23.6	13.6	(3.2)	18.3	19.0	33.0	(14.0)

VII. Major Consolidated Subsidiaries (As of March 31, 2021)

Domestic	Establishment	Ownership	Number of employees	Businesses
DSP GOKYO FOOD & CHEMICAL Co., Ltd.	1947/10	100%	204	Manufacturing and sales of food ingredients, food additives, chemical product materials, etc.
DS Pharma Animal Health Co., Ltd.	2010/ 7	100%	89	Manufacturing, and sales of veterinary medicines, etc.
DS Pharma Promo Co., Ltd.	1998/ 6	100%	41	Manufacturing and sales of pharmaceuticals, etc.
Overseas	Establishment	Ownership	Number of employees	Businesses
Sumitomo Dainippon Pharma America, Inc.	2009/7	100%	153	Holding company of Sunovion Pharmaceuticals Inc. and Sumitomo Dainippon Pharma Oncology, Inc. and providing general and administrative service with these subsidiaries
Sunovion Pharmaceuticals Inc.	1984/ 1	100%	*1,264	Manufacturing and sales of pharmaceuticals
Sumitomo Dainippon Pharma Oncology, Inc.	2006/11	100%	204	R&D in the oncology area
Sumitovant Biopharma, Inc.	2019/10	100%	72	Management of Sumitovant group companies, and formulation and promotion of business strategies, etc.
Myovant Sciences Ltd.	2016/ 2	53%	*405	R&D, manufacturing and sales of pharmaceuticals in the women's health, prostate cancer area
Urovant Sciences Ltd.	2016/ 1	100%	*298	R&D in the urology area
Enzyvant Therapeutics Ltd.	2016/ 1	100%	*24	R&D in the pediatric rare diseases area
Altavant Sciences Ltd.	2017/ 9	100%	*15	R&D in the respiratory rare diseases area
Spirovant Sciences Ltd.	2019/ 2	100%	*21	R&D in the cystic fibrosis gene therapy area
Sumitomo Pharmaceuticals (Suzhou) Co., Ltd.	2003/12	100%	754	Manufacturing and sales of pharmaceuticals

* Include employees of consolidated subsidiaries

(Reference) Number of employees and MRs

	March 31, 2019	March 31, 2020	March 31, 2021	March 31, 2021
consolidated / non-consolidated	6,140	3,067	6,457	3,023
MRs (include number of contracted MRs)				
Japan Exclude managers/Total	1,120	1,240	1,220	1,340
U.S. Exclude managers/Total	720	820	650	740
China Exclude managers/Total	340	400	330	400

*Include sales reps of Sumitovant's subsidiaries

VIII. Shareholder Positioning (As of March 31, 2021)

1. Total number of authorized shares: 1,500,000,000
2. Total number of shares outstanding: 397,900,154 (Including number of treasury stock 606,255)
3. Number of shareholders by category:

	Number of shareholders	Number of shares (Thousands)	Percentage of total (%)
Financial institutions	49	95,166	23.92
Securities companies	38	2,989	0.75
Other Japanese corporations	292	231,048	58.07
Corporations outside Japan, etc.	613	45,668	11.48
Individuals and others (Including treasury stock)	23,389	23,027	5.78
Total	24,381	397,900	100

Note: The numbers of shares are rounded down to the nearest thousand shares.

4. Major shareholders:

Shareholders	Number of shares held (Thousands)	Percentage of shareholding(%)
Sumitomo Chemical Co., Ltd.	205,634	51.76
The Master Trust Bank of Japan, Ltd. (Trust account)	31,715	7.98
Inabata & Co., Ltd.	16,782	4.22
Custody Bank of Japan, Ltd. (Trust account)	12,828	3.23
Nippon Life Insurance Company	7,581	1.91
SMBC Trust Bank Ltd. (Trust account for Sumitomo Mitsui Banking Corporation's retirement benefits)	7,000	1.76
Sumitomo Life Insurance Company	5,776	1.45
Custody Bank of Japan, Ltd. (Trust account 7)	4,145	1.04
Sumitomo Dainippon Pharma Employee shareholders' association	2,934	0.74
Aoi Nissay Dowa Insurance Co.,Ltd.	2,661	0.67

Notes: 1: Percentage of shareholding is calculated excluding treasury stock (606,255 stocks *).

*Exclude 1,000 stocks under name of the Company which are not owned by the Company substantially

2: The numbers of shares held are rounded down to the nearest thousand shares.

IX. Development Pipeline (As of May 12, 2021)

- This table shows clinical studies on indications for which the Sumitomo Dainippon Pharma Group aims to obtain approval in Japan, U.S., China, or Europe and does not cover all clinical studies.
- For oncology area, the study for the most advanced development stage is listed if there are multiple studies with the same indication.
- The development stage is changed when Investigational New Drug Application/amended IND/ Clinical Trial Notification is filed/approved by the authority.

1. Psychiatry & Neurology

Brand name/ Product code (Generic name)	Proposed indication	Region	Development stage
SEP-363856	Schizophrenia	U.S.	Phase 3
		Japan, China	Phase 2/3 (Global clinical study)
LATUDA® (lurasidone hydrochloride)	(New indication) Bipolar I depression	China	Phase 3
	(New usage: pediatric) Schizophrenia	Japan	Phase 3
EPI-589	Parkinson's disease	U.S.	Phase 2
	Amyotrophic lateral sclerosis (ALS)	U.S.	Phase 2
		Japan	Phase 1
SEP-4199	Bipolar I depression	U.S., Japan	Phase 2 (Global clinical study)
DSP-6745	Parkinson's disease psychosis	U.S.	Phase 1
SEP-378608	Bipolar disorder	U.S.	Phase 1
DSP-3905	Neuropathic pain	U.S.	Phase 1
SEP-378614	Treatment resistant depression	U.S.	Phase 1
SEP-380135	Alzheimer's disease agitation	U.S.	Phase 1
DSP-1181	Obsessive compulsive disorder	Japan	Phase 1
DSP-0038	Alzheimer's disease psychosis	U.S.	Phase 1

2. Oncology

Brand name/ Product code (Generic name)	Proposed indication	Region	Development stage
relugolix	Prostate cancer	Europe	MAA submitted in March 2021
DSP-7888 (adegramotide/ nelatimotide)	Glioblastoma	U.S.	Phase 3 (Global clinical study)
		Japan	Phase 2 (Global clinical study)
	Solid tumors	U.S.	Phase 1/2
TP-0903 (dubermatinib)	Acute myeloid leukemia (AML)	U.S.	Phase 1/2 (Research group-initiated clinical study)
DSP-0509	Solid tumors	U.S.	Phase 1/2

TP-0184	Anemia associated with myelodysplastic syndromes	U.S.	Phase 1/2
TP-1287	Solid tumors	U.S.	Phase 1
TP-3654	Myelofibrosis	U.S.	Phase 1
TP-1454	Solid tumors	U.S.	Phase 1
DSP-0390	Solid tumors	U.S.	Phase 1

3. Regenerative medicine / cell therapy

Brand name/ Product code (Generic name)	Proposed indication	Region	Development stage
RVT-802	Pediatric congenital athymia	U.S.	BLA submitted in April 2019 Received Complete Response Letter in December 2019 BLA resubmitted in April 2021
Allo iPS cell-derived dopamine neural progenitor	Parkinson's disease	Japan	Phase 1/2 (Investigator-initiated clinical study)
HLCR011 (Allo iPS cell-derived retinal pigment epithelium)	Age-related macular degeneration (AMD)	Japan	Preparing for start of clinical study

4. Others

Brand name/ Product code (Generic name)	Proposed indication	Region	Development stage
relugolix	Uterine fibroids	Europe	MAA submitted in March 2020
		U.S.	NDA submitted in May 2020
	Endometriosis	U.S.	Phase 3 (Global clinical study)
PXL008 (imeglimin)	Type 2 diabetes	Japan	NDA submitted in July 2020
GEMTESA® (vibegron)	(New indication) Overactive bladder (OAB) in men with benign prostatic hyperplasia (BPH)	U.S.	Phase 3
rodatristat ethyl	Pulmonary arterial hypertension (PAH)	U.S.	Phase 2
MVT-602	Female infertility	Germany	Phase 2
URO-902	Overactive bladder (OAB)	U.S.	Phase 2

5. Frontier business

Brand name/ Product code	Proposed indication	Region	Development stage
SMC-01 (mobile app for management of type 2 diabetic patients)	Type 2 diabetes	Japan	Phase 3 (Co-development with Save Medical)

【Main revisions since the announcement of January 2021】

Brand name/ Product code (Generic name)	Proposed indication	Region	Development stage	Changes
LONASEN® (blonanserin)	(New usage: pediatric) Schizophrenia	Japan	Approved in March 2021	Deleted from the table due to approval
relugolix	Prostate cancer	Europe	MAA submitted	MAA submitted in March 2021
RVT-802	Pediatric congenital athymia	U.S.	BLA submitted	BLA resubmitted in April 2021
SEP-363856	Schizophrenia	Japan, China	Phase 2/3 (Global clinical study)	Development stage changed
DSP-7888 (adegramotide/n elatimotide)	Glioblastoma	U.S.	Phase 3	
LATUDA® (lurasidone hydrochloride)	(New usage: pediatric) Schizophrenia	Japan	Phase 3	Newly added
TP-0903 (dubermatinib)	Acute myeloid leukemia (AML)	U.S.	Phase 1/2 (Research group-initiated clinical study)	
DSP-0038	Alzheimer's disease psychosis	U.S.	Phase 1	
DSP-0390	Solid tumors	U.S.	Phase 1	
EPI-743 (vatiquinone)	Leigh syndrome	Japan	Phase 2/3	
BBI608 (napabucasin)	Colorectal cancer and other solid tumors	U.S., Japan	Phase 3 Phase 1/2	Deleted from the table due to discontinuation
DSP-2033 (alvocidib)	Acute myeloid leukemia (AML), Myelodysplastic syndromes (MDS)	U.S.	Phase 2 Phase 1/2	Deleted from the table due to

DSP-0337	Solid tumors	U.S.	Phase 1	discontinuation in-house, and under activity for out-license
TP-0903 (dubermatinib)	Solid tumors	U.S., Japan	Phase 1	Deleted from the table due to the study completed
TP-0184	Solid tumors	U.S.	Phase 1	
TP-3654	Solid tumors	U.S.	Phase 1	

X. Profiles of Major Products under Development (As of May 12, 2021)

1. Psychiatry & Neurology

SEP-363856 Origin: in-house (Joint research with Sunovion Pharmaceuticals Inc. and PsychoGenics Inc.), Formulation: oral

- SEP-363856 is an antipsychotic agent with a novel mechanism of action, a TAAR1 (trace amine-associated receptor 1) agonist with serotonin 5-HT_{1A} agonist activity and doesn't bind to dopamine D₂ or serotonin 5-HT_{2A} receptors. Sunovion discovered SEP-363856 in collaboration with PsychoGenics using its in vivo phenotypic SmartCube® platform and associated artificial intelligence algorithms. Phase 2 results in patients with schizophrenia support the efficacy of SEP-363856 in treating both positive and negative symptoms of schizophrenia, while demonstrating a side effect of profile with notable similarities to placebo: extrapyramidal symptoms, weight gain, lipid and glucose derangements or prolactin elevation.
- Development stage:
Schizophrenia: Phase 3 in the U.S.
Parkinson's disease psychosis: Phase 2 in the U.S.
Schizophrenia: Phase 2/3 in Japan and China

EPI-589 Origin: PTC Therapeutics, Inc. (Acquired from BioElectron Technology Corporation), Formulation: oral

- EPI-589 is expected to show efficacy by removing the oxidative stress that is generated excessively by decreased mitochondrial function. It is expected to be developed for neurodegenerative indications arising through redox stress.
Development stage:
Parkinson's disease: Phase 2 in the U.S.
Amyotrophic lateral sclerosis (ALS): Phase 2 in the U.S.
Amyotrophic lateral sclerosis (ALS): Phase 1 in Japan

SEP-4199 Origin: in-house (Sunovion Pharmaceuticals Inc.), Formulation: oral

- SEP-4199 is a non-racemic ratio of amisulpride enantiomers. Sunovion discovered that the pharmacology of amisulpride is enantiomer-specific, and that increasing the ratio of R-amisulpride to S-amisulpride increases the potency for serotonin 5-HT₇ receptors relative to dopamine D₂ receptors. SEP-4199 was designed with an 85:15 ratio of R-amisulpride to S-amisulpride to increase levels of serotonin 5-HT₇ activity intended to enhance antidepressant efficacy and produce reduced levels of D₂ receptor occupancy appropriate for the treatment of bipolar depression.
- Development stage:
Bipolar I depression: Phase 2 in the U.S. and Japan

DSP-6745 Origin: in-house, Formulation: oral

- DSP-6745 is a serotonin 5-HT_{2A} and serotonin 5-HT_{2C} receptors dual antagonist, which is expected to be effective for Parkinson's disease psychosis and one or more Parkinson's disease non-motor symptoms (depression, anxiety, or cognitive impairment). In addition, DSP-6745 has negligible affinity for dopamine D₂ receptors.
- Development stage: Parkinson's disease psychosis: Phase 1 in the U.S.

SEP-378608 Origin: in-house (Joint research with Sunovion Pharmaceuticals Inc. and PsychoGenics Inc.), Formulation: oral

- SEP-378608 is a novel CNS-active molecule. Sunovion discovered SEP-378608 in collaboration with PsychoGenics using its in vivo phenotypic SmartCube® platform and associated artificial intelligence

algorithms. Pre-clinical studies suggest that it may modulate neuronal activity in key areas of the brain associated with the regulation of mood.

- Development stage: Bipolar disorder: Phase 1 in the U.S.

DSP-3905

Origin: in-house, Formulation: oral

- DSP-3905 is an agent that selectively inhibits voltage-gated sodium channels Nav1.7. Based on its inhibitory mode of action, the agent is expected to show a potent analgesic effect on the pain occurring when neurons get excessively excited. In addition, DSP-3905 has a high selectivity for Nav1.7 expressed in peripheral neuron and may not produce central nervous system or cardiovascular system side effects, which are present with the current drugs for neuropathic pain.
- Development stage: Neuropathic pain: Phase 1 in the U.S.

SEP-378614

Origin: in-house (Joint research with Sunovion Pharmaceuticals Inc. and PsychoGenics Inc.), Formulation: oral

- SEP-378614 is a novel CNS-active molecule. Sunovion discovered SEP-378614 in collaboration with PsychoGenics using its in vivo phenotypic SmartCube® platform and associated artificial intelligence algorithms. Pre-clinical studies suggest that it may have rapid onset and long lasting antidepressant-like activity and enhance neuroplasticity.
- Development stage: Treatment resistant depression: Phase 1 in the U.S.

SEP-380135

Origin: in-house (Joint research with Sunovion Pharmaceuticals Inc. and PsychoGenics Inc.), Formulation: oral

- SEP-380135 is a novel CNS-active molecule. Sunovion discovered SEP-380135 in collaboration with PsychoGenics using its in vivo phenotypic SmartCube® platform and associated artificial intelligence algorithms. Pre-clinical studies showed a broad range of in vivo activities suggesting efficacy against a number of behavioral and psychological symptoms in dementia, including agitation/aggression, psychomotor hyperactivity, depression and deficits in social interaction.
- Development stage: Alzheimer's disease agitation: Phase 1 in the U.S.

DSP-1181

Origin: in-house (Joint research with Exscientia), Formulation: oral

- DSP-1181 is a novel compound created by Sumitomo Dainippon Pharma using Exscientia's AI technologies. In contrast to conventional serotonin 5-HT_{1A} receptor partial agonists (non-benzodiazepine anxiolytics), DSP-1181 has a potent full agonistic activity for serotonin 5-HT_{1A} receptors and is expected to have a long half-life, and therefore it is suggested that DSP-1181 has strong efficacy over a long period of time. In obsessive compulsive disorder (OCD) model mice manipulated OCD-related neural circuit, DSP-1181 is expected to have an earlier onset of efficacy than a standard medication, a selective serotonin reuptake inhibitor (SSRI).
- Development stage: Obsessive compulsive disorder: Phase 1 in Japan.

DSP-0038

Origin: in-house (Joint research with Exscientia), Formulation: oral

- DSP-0038 is a novel compound discovered at Sumitomo Dainippon Pharma using Exscientia's AI technologies. DSP-0038 is a serotonin 5-HT_{2A} receptor antagonist and a serotonin 5-HT_{1A} receptor agonist. DSP-0038 is expected to demonstrate a greater antipsychotic effect, based on the additive effect of 5-HT_{2A} receptor antagonist and 5-HT_{1A} receptor agonist. The compound could also have a broader efficacy in the treatment of behavioral and psychological symptoms of dementia (BPSD) which include agitation, aggression, anxiety, and depression. Furthermore, DSP-0038 has negligible affinity for dopamine D₂ receptors, and therefore it can be expected to show improved safety and tolerability compared to existing antipsychotic.
- Development stage: Alzheimer's disease psychosis: Phase 1 in the U.S.

2. Oncology

adegramotide/nelatimotide (DSP-7888)

Origin: in-house, Formulation: injection

- DSP-7888 is an immunotherapeutic cancer peptide vaccine derived from Wilms' tumor gene 1 (WT1) protein. DSP-7888 is a vaccine containing peptides that induces WT1-specific cytotoxic T lymphocytes (CTLs) and helper T cells. DSP-7888 is expected to become a treatment option for patients with various types of hematologic malignancies and solid tumors that express WT1 by inducing WT1-specific CTLs that attack WT1-expressing cancer cells. By adding a helper T cell-inducing peptide, improved efficacy over that observed with a CTL-inducing peptide alone may be achieved. DSP-7888 is expected to be an option for a wide range of patients.
- Development stage:

Proposed indication	Combination products	Country/ Area	Stage	Study number
Glioblastoma (combination therapy)	bevacizumab	U.S.	Phase 3	BBI-DSP7888-201G
		Japan	Phase 2	
Solid tumors (combination therapy)	nivolumab, pembrolizumab	U.S.	Phase 1/2	BBI-DSP7888-102CI

dubermatinib (TP-0903)

Origin: University of Utah, Formulation: oral

- Dubermatinib (TP-0903) is an inhibitor of multikinase including AXL receptor tyrosine kinase inhibitor, which is known to be involved in acquiring resistance to conventional agents and developing metastatic capacity in cancer cells. TP-0903 may have anti-cancer activities on various cancer types through blocking transition from epithelial to mesenchymal phenotype by inhibiting AXL. TP-0903 has been shown to inhibit AXL signaling and reverse the mesenchymal to epithelial phenotype in pre-clinical studies.
- Development stage: Acute Myeloid Leukemia: Phase 1/2 (Research group-initiated clinical study*) in the U.S.
* One arm in the Beat AML study led by the U.S. non-profit organization LLS (The Leukemia & Lymphoma Society)

DSP-0509

Origin: in-house, Formulation: injection

- DSP-0509 is a novel Toll-like receptor (TLR) 7 agonist. DSP-0509 may promote the cytokine induction and cytotoxic T lymphocyte (CTL) activation mediated by agonistic effect of TLR 7 expressing in plasmacytoid dendritic cell. Furthermore, DSP-0509 is expected to sustain the immune-mediated anti-cancer activity by induction of immune system memory T cells.
- Development stage: Solid tumors (monotherapy / combination therapy): Phase 1/2 in the U.S.

TP-0184

Origin: in-house (former Tolero Pharmaceuticals, Inc.), Formulation: oral

- TP-0184 has an inhibitory effect against kinase such as ALK2 and ALK5, part of the transforming growth factor beta (TGF β) receptor superfamily. In myelodysplastic syndromes, the ALK5 pathway is activated and caused abnormal erythroid differentiation. TP-0184 is expected to show anti-cancer activities through the kinase inhibitory effect decrease hepcidin expression, increase bioavailable iron, and restore normal levels of hemoglobin.
- Development stage:
Anemia associated with myelodysplastic syndromes (monotherapy): Phase 1/2 in the U.S.

TP-1287

Origin: in-house (former Tolero Pharmaceuticals, Inc.), Formulation: oral

- TP-1287 is a small molecule oral agent that inhibits cyclin-dependent kinase 9 (CDK9). TP-1287 has shown favorable oral bioavailability in preclinical studies. It is enzymatically cleaved, yielding alvocidib, a potent inhibitor of CDK9. The oral administration of TP-1287 may allow for administration for a

prolonged period, which may lead to a continuous inhibition of CDK9.

- Development stage: Solid tumors (monotherapy): Phase 1 in the U.S.

TP-3654 **Origin: in-house (former Tolero Pharmaceuticals, Inc.), Formulation: oral**

- TP-3654 inhibits the inflammatory signaling pathways through inhibition of PIM (proviral integration site for Moloney murine leukemia virus) kinases. PIM kinases are frequently overexpressed in various hematologic malignancies and solid tumors, allowing cancer cells to evade apoptosis and promoting tumor growth.
- Development stage:
Myelofibrosis (monotherapy / combination therapy): Phase 1 in the U.S.

TP-1454 **Origin: in-house (former Tolero Pharmaceuticals, Inc.), Formulation: oral**

- TP-1454 inhibits tumor growth through activation of PKM2 (pyruvate kinase M2) which lead to the inhibition of tumor cell proliferation and enhances antitumor immune response in tumor microenvironment. TP-1454 induces the activity of PKM2 through tetramerization of the enzyme which mainly exists in enzymatically less active dimer state in cancer cells. Tetramerization of PKM2 lead to the reduction of aerobic glycolysis in cancer cells and revert the immunosuppressive microenvironment. TP-1454 is expected to show synergistic effect with immune checkpoint inhibitor.
- Development stage:
Solid tumors (monotherapy / combination therapy): Phase 1 in the U.S.

DSP-0390 **Origin: in-house, Formulation: oral**

- DSP-0390 is an inhibitor of Emopamil Binding Protein (EBP), which is one of cholesterol biosynthetic enzymes. EBP is an endoplasmic reticulum membrane protein involved in cholesterol biosynthesis. When functional, EBP mediates de novo cholesterol synthesis for cell membrane structure and signaling, enabling aberrant growth of tumors. Inhibition of EBP causes an efficient cellular cholesterol depletion and it is expected to show anti-cancer activities.
- Development stage: Solid tumors (monotherapy): Phase 1 in the U.S.

3. Regenerative medicine / cell therapy

RVT-802 **Origin: Duke University**

- RVT-802, a one-time regenerative therapy, is cultured human thymus tissue engineered to generate a functioning immune response when implanted in pediatric patients with congenital athymia. The key source material for RVT-802 is human thymus tissue that has been removed during pediatric cardiac surgery for unrelated conditions. Patients receive RVT-802 in the quadriceps muscle during a single surgical procedure. The patient's own bone marrow stem cells migrate to RVT-802, where they develop into mature T-cells that can fight infection. For patients who respond to RVT-802, a diverse T-cell population is established and thymic function sufficient to protect from infection usually develops between 6 and 12 months post treatment.
- Development stage: Pediatric congenital athymia: BLA submitted in the U.S. in April 2019, Complete Response Letter received in December 2019, BLA resubmitted in the U.S. in April 2021

Allo iPS cell-derived products

- In cooperation with the partners in the industry-academia collaboration, we are promoting toward the commercialization of regenerative medicine / cell therapy using allo iPS cell (healthy patients) for AMD (age-related macular degeneration), Parkinson's disease, retinitis pigmentosa, and spinal cord injury.

- Development stage:

Development code	Partnering	Proposed indication	Area	Development stage
-	Kyoto University CiRA	Parkinson's disease	Japan	Phase 1/2 (Investigator-initiated clinical study)
HLCR011	RIKEN, Healios	Age-related macular degeneration (AMD)	Japan	Preparing for start of clinical study

4. Others

relugolix

Origin: Takeda Pharmaceutical Company Ltd, Formulation: oral

- Relugolix is a once-daily, oral gonadotropin-releasing hormone (GnRH) receptor antagonist that reduces testicular testosterone production, the hormone primarily responsible for stimulating prostate cancer, and ovarian estradiol production, hormones known to stimulate the growth of uterine fibroids and endometriosis. Myovant has received approval in the U.S. in December 2020 for a relugolix monotherapy tablet (120 mg) for men with advanced prostate cancer. Myovant is developing a distinct product, relugolix combination tablet (relugolix 40 mg plus estradiol 1.0 mg and norethindrone acetate 0.5 mg) for uterine fibroids and endometriosis.
- Development stage:
Prostate cancer: MAA submitted in Europe in March 2021
Uterine fibroids: MAA submitted in Europe in March 2020, NDA submitted in the U.S. in May 2020
Endometriosis: Phase 3 in the U.S.

imeglimin (PXL008)

Origin: Poxel SA, Formulation: oral

- Imeglimin has a unique mechanism of action that targets mitochondrial bioenergetics. Imeglimin acts on all three key organs which play an important role in the treatment of type 2 diabetes: the pancreas, muscles, and the liver, and it has demonstrated glucose lowering benefits by increasing insulin secretion in response to glucose, improving insulin sensitivity and suppressing gluconeogenesis.
- Development stage: Type 2 diabetes: NDA submitted in Japan in July 2020 (Co-development with Poxel)

GEMTESA® (vibegron)

Origin: Merck Sharp & Dohme Corp., Formulation: oral

- Vibegron is an oral, once-daily, small molecule β_3 adrenergic receptor agonist. Vibegron selectively acts on the β_3 adrenergic receptor in the bladder, relaxes the bladder, enhances urinary storage, and improves symptoms of urgency, urinary frequency, and urge urinary incontinence in overactive bladder. Urovant has received approval for overactive bladder in the U.S in December 2020.
- Development stage:
(New indication) Overactive bladder in men with BPH: Phase 3 in the U.S.

rodatristat ethyl

Origin: Karos Pharmaceuticals, Inc., Formulation: oral

- Rodatristat ethyl is a prodrug of tryptophan hydroxylase (TPH) inhibitor designed to reduce peripheral production of serotonin without entering the brain. It is believed that rodatristat ethyl may halt or reverse the pathology of diseases that are driven by excessive serotonin production, such as PAH, idiopathic pulmonary fibrosis (IPF) and sarcoidosis.
- Development stage: Pulmonary arterial hypertension (PAH): Phase 2 in the U.S.

MVT-602

Origin: Takeda Pharmaceutical Company Ltd, Formulation: oral

- MVT-602 is an oligopeptide kisspeptin-1 receptor agonist. Activation of kisspeptin in upstream

hypothalamic neurons is hypothesized to lead to the transmission of a signal that stimulates downstream neurons to increase the secretion of GnRH. Continued stimulation of kisspeptin is thought to result in the desensitization of receptor transduction, which is anticipated to result in a complete cessation of the signaling pathway. Myovant is developing MVT-602 as part of the hormonal preparation for women with infertility undergoing in vitro fertilization. MVT-602 is believed to stimulate GnRH which in turn increases secretion of luteinizing hormone that acts as a trigger for egg maturation prior to oocyte collection.

- Development stage: Female infertility: Phase 2 in Germany

URO-902

Origin: Ion Channel Innovations, Formulation: injection

- URO-902 is a novel gene therapy for patients with overactive bladder symptoms who have failed oral pharmacologic therapy. URO-902 is a plasmid vector containing a human cDNA encoding the pore-forming component of the Maxi-K ion channel. Expression of the Maxi-K protein in muscle cells is hypothesized to increase potassium ion flow across the cell membrane, reducing excitability of smooth muscle cells. This mechanism could potentially normalize the heightened detrusor smooth muscle tone in overactive bladder, thereby reducing the symptoms of overactive bladder.
- Development stage: Overactive bladder: Phase 2 in the U.S.

5. Frontier business

SMC-01 (mobile app for management of type 2 diabetic patients)(medical device) Origin: Save Medical

- The purpose of the App is to promote behavioral change in patients and improve clinical parameters by managing their daily activities related to type 2 diabetes care (meals, exercise, body weight, medication, blood pressure, and glucose level). Unlike other apps, the App is intended to be used under the guidance and endorsement of a physician, which will motivate patients to continue with their treatment and support their efforts to change their behavior.
- Development stage: Type 2 diabetes: Phase 3 in Japan (Co-development with Save Medical)