Better Health, Brighter Future

Financial Results for 1st Q of FY2016 DATA BOOK

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Quarterly Announcements / Presentations
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I. Financial Results

1. Revenue / Product Sales

◆ Prescription Drugs Revenue [Consolidated]

(Billion JPY)

	FY14 Annual	FY15 Annual	FY15 Q1	FY16 Q1	vs. PrY		Underlying Growth
Net sales	1,527.6	1,592.8	392.1	381.8	-10.3	-2.6%	10.9%
Japan	553.2	535.1	133.1	123.9	-9.2	-6.9%	10.3%
United States	394.9	495.3	118.6	126.7	8.1	6.9%	16.5%
Europe and Canada	287.1	283.5	70.7	71.4	0.6	0.9%	7.9%
Emerging Markets	292.3	279.0	69.7	59.9	-9.8	-14.1%	5.2%
Russia/CIS	79.5	61.5	15.4	12.5	-2.9	-18.7%	8.0%
Russia	56.2	43.3	10.6	8.8	-1.8	-17.0%	10.7%
Latin America	80.1	66.0	17.6	14.6	-3.0	-17.0%	11.6%
Brazil	46.2	37.4	9.8	7.9	-1.9	-18.9%	2.4%
Asia	102.4	116.6	28.6	25.3	-3.2	-11.2%	1.8%
China	53.0	63.2	13.4	13.2	-0.1	-1.1%	12.9%
Other	30.3	34.9	8.1	7.4	-0.7	-9.0%	0.8%
Royalty income and service income	86.9	55.8	15.8	12.2	-3.5	-22.3%	-20.3%
Japan	8.1	6.6	2.0	2.8	0.8	43.2%	-22.8%
Overseas	78.8	49.3	13.8	9.4	-4.4	-31.6%	-20.0%
Total prescription drugs revenue	1,614.5	1,648.7	407.8	394.0	-13.8	-3.4%	9.7%
Ratio of overseas prescription drugs revenue	65.2%	67.1%	66.9%	67.9%	1.0 pt		

*1 Revenue amount is classified into countries or regions based on the customer location.
*2 Other region includes Middle East, Oceania and Africa.

◆ Prescription Drugs: Global major products' sales *1

(Billion JPY)

		FY14 Annual	FY15 Annual	FY15 Q1	FY16 Q1	vs. PrY		Underlying Growth	FY16 Forecasts *3
Velcade	United States	110.8	131.6	33.2	28.9	-4.4	-13.2%	-6.3%	
	Other than United States	41.9	30.4	9.1	6.7	-2.4	-26.1%	-17.9%	
	Total	152.7	162.0	42.3	35.5	-6.7	-15.9%	-8.7%	↘↘
Leuprorelin	Japan	57.6	53.8	13.3	13.1	-0.3	-2.0%	-2.0%	
	United States	15.9	17.3	4.7	5.7	1.0	20.4%	23.5%	
	Europe and Canada	36.4	35.3	8.7	8.3	-0.4	-4.9%	-0.8%	
	Emerging Markets	14.2	18.0	4.1	3.8	-0.4	-9.1%	-0.2%	
	Total	124.0	124.4	30.9	30.8	-0.1	-0.4%	2.5%	↘
Pantoprazole	United States	11.0	13.6	1.7	3.4	1.7	94.8%	119.5%	
	Europe and Canada	49.3	43.4	11.8	8.6	-3.2	-27.0%	-21.7%	
	Emerging Markets	43.4	43.7	10.7	8.0	-2.7	-24.9%	-11.2%	
	Total	103.7	100.8	24.3	20.1	-4.2	-17.3%	-7.4%	↘
Lansoprazole	Japan *2	52.5	41.3	11.0	2.1	-8.9	-80.8%	12.0%	
	United States	28.7	27.5	9.1	6.6	-2.5	-27.3%	-20.7%	
	Europe and Canada	11.7	10.5	3.1	2.3	-0.9	-28.1%	-23.9%	
	Emerging Markets	10.1	10.2	2.7	2.4	-0.3	-11.0%	0.5%	
	Total	102.9	89.5	25.9	13.4	-12.6	-48.4%	-14.8%	↘↘↘
Entyvio	United States	20.1	63.1	12.0	22.5	10.5	87.2%	103.4%	
	Europe and Canada	7.7	21.9	3.9	8.8	4.9	124.4%	137.3%	
	Emerging Markets	0.0	1.3	0.2	0.8	0.5	-	-	
	Total	27.8	86.2	16.2	32.0	15.9	98.2%	113.9%	↗↗↗
Candesartan	Japan *2	94.6	58.5	16.1	4.8	-11.2	-69.8%	-37.2%	
	United States	2.1	1.3	0.3	0.2	-0.1	-22.5%	-16.2%	
	Europe and Canada	17.7	12.5	3.2	3.0	-0.2	-7.0%	-1.2%	
	Emerging Markets	11.4	12.4	3.1	3.2	0.1	2.1%	11.0%	
	Total	125.7	84.8	22.7	11.3	-11.4	-50.4%	-18.9%	↘↘↘
Dexilant	United States	53.5	64.0	16.3	13.0	-3.3	-20.2%	-13.3%	
	Europe and Canada	4.9	5.4	1.3	1.5	0.1	10.9%	24.9%	
	Emerging Markets	3.9	5.7	1.2	1.6	0.5	38.9%	66.5%	
	Total	62.3	75.1	18.8	16.2	-2.7	-14.3%	-5.9%	→
Azilva	Japan	45.4	59.0	14.1	17.7	3.6	25.6%	25.6%	
	Total	45.4	59.0	14.1	17.7	3.6	25.6%	25.6%	→
Nesina	Japan	38.4	36.9	9.5	9.3	-0.2	-1.6%	-1.6%	
	United States	4.1	5.3	1.5	1.5	0.0	3.0%	10.9%	
	Europe and Canada	0.6	3.5	0.5	1.5	1.0	-	-	
	Emerging Markets	1.3	3.3	0.7	1.0	0.3	35.1%	55.9%	
	Total	44.3	48.9	12.2	13.3	1.2	9.5%	11.6%	→
Colcrys	United States	58.8	46.5	11.2	10.5	-0.7	-5.9%	2.1%	
	Total	58.8	46.5	11.2	10.5	-0.7	-5.9%	2.1%	→
Uloric	United States	32.6	41.8	9.8	9.5	-0.3	-2.7%	5.6%	
	Europe and Canada	0.6	0.7	0.2	0.2	0.0	4.7%	17.9%	
	Emerging Markets	-	-	-	0.0	0.0	-	-	
	Total	33.2	42.5	10.0	9.7	-0.2	-2.4%	6.0%	→
Amitiza	United States	31.9	37.2	9.4	8.9	-0.5	-5.6%	2.5%	
	Europe and Canada	0.0	0.1	0.0	0.0	-0.0	-18.7%	-9.0%	
	Total	32.0	37.3	9.4	8.9	-0.5	-5.7%	2.5%	→
Adcetris	Japan	2.8	3.1	0.8	0.9	0.1	9.1%	9.1%	
	Europe and Canada	16.3	17.4	4.3	5.0	0.7	17.4%	24.5%	
	Emerging Markets	3.6	7.2	1.7	1.9	0.1	8.7%	46.9%	
	Total	22.9	27.6	6.8	7.8	1.0	14.3%	27.2%	→
Trintellix *4	United States	13.6	24.5	5.0	6.4	1.4	27.6%	38.2%	
	Total	13.6	24.5	5.0	6.4	1.4	27.6%	38.2%	↗↗↗
Takecab	Japan	3.2	8.4	0.5	6.4	5.8	-	-	
	Total	3.2	8.4	0.5	6.4	5.8	-	-	↗↗↗
Ninlaro	United States	-	4.0	-	6.0	6.0	-	-	
	Emerging Markets	-	0.0	-	0.0	0.0	-	-	
	Total	-	4.1	-	6.0	6.0	-	-	↗↗↗

*1 Sales amount includes royalty income and service income.

*2 Products excluding fixed dose combinations were transferred to the Joint Venture with Teva in Japan in April, 2016.

*3 FY16 Forecasts: Arrows show growth from FY15 results (reported basis).

→ ± <10%　↗ +10%~20　↗↗ +20%~30%　↗↗↗ +>30%　↘ -10%~20%　↘↘ -20%~30%　↘↘↘ - >30%

*4 Trintellix is the brand name used since June 2016 for the product previously marketed as Brintellix.
The formulations, indication and dosages of Trintellix remain the same as that of Brintellix.

◆ **Prescription Drugs: US major products' sales (in US$) *1**

(Millions of US$)

	FY14 Annual	FY15 Annual	FY15 Q1	FY16 Q1	vs. PrY	Increase/ decrease
Velcade	1,017	1,079	276	247	-29	-10.6%
Entyvio	179	524	99	201	102	103.4%
Dexilant	488	530	135	117	-18	-13.3%
Colcrys	542	386	92	94	2	2.1%
Uloric	297	347	81	85	5	5.6%
Amitiza	291	308	77	79	2	2.5%
Trintellix*2	124	203	42	58	16	38.2%
Prevacid (lansoprazole)	254	222	73	57	-15	-20.9%
Ninlaro	-	34	-	54	54	-
Contrave*3	19	56	16	13	-3	-21.6%

*1 Product sales (royalty income and service income are excluded).

*2 Trintellix is the brand name used since June 2016 for the product previously marketed as Brintellix. The formulations, indication and dosages of Trintellix remain the same as that of Brintellix.

*3 In March 2016, Takeda and Orexigen announced they have agreed to terminate the collaboration.

◆ Prescription Drugs: Japan major products' sales

(Billions JPY)

	Launched	Therapeutic Class	FY14 Annual	FY15 Annual	FY15 Q1	FY16 Q1	vs PrY	Increase/ decrease
Azilva *	(12. 5)	Hypertension	45.4	59.0	14.1	17.7	3.6	25.6%
Leuplin (leuprorelin)	(92. 9)	Prostate cancer, breast cancer and endometriosis	57.6	53.8	13.3	13.1	-0.3	-2.0%
Enbrel	(05. 3)	Rheumatoid arthritis	41.2	40.8	10.4	11.0	0.6	5.9%
Nesina *	(10. 6)	Diabetes	38.4	36.9	9.5	9.3	-0.2	-1.6%
Lotriga	(13. 1)	Hyperlipidemia	13.2	22.3	5.0	6.8	1.8	36.8%
Takecab *	(15. 2)	Acid-related Diseases	3.2	8.4	0.5	6.4	5.8	-
Vectibix	(10. 6)	Colorectal cancer	18.3	18.4	4.7	4.9	0.2	5.1%
Reminyl	（11. 3）	Alzheimer-type dementia	13.9	16.0	3.9	4.6	0.8	19.3%
Benet	(02. 5)	Osteoporosis	10.4	9.7	2.5	2.3	-0.2	-6.4%
Rozerem	（10. 7）	Insomnia	6.6	7.4	1.8	2.1	0.3	17.8%
Adcetris	(14. 4)	Malignant Lymphoma	2.8	3.1	0.8	0.9	0.1	9.1%

* The figures include the amounts of fixed dose combinations and blister packs.

◆ Consumer Healthcare: Major products' sales

(Billions JPY)

	FY14 Annual	FY15 Annual	FY15 Q1	FY16 Q1	vs PrY	Increase/ decrease
Alinamin tablet	20.7	25.2	6.9	6.1	-0.8	-11.8%
Alinamin drink	14.9	14.9	4.0	5.1	1.1	27.3%
Biofermin	8.1	8.6	2.2	2.2	-0.0	-0.2%
Benza	9.7	9.8	1.2	1.3	0.1	8.3%
Borraginol	4.1	4.5	1.1	1.1	0.0	3.0%

2. Exchange Rate

Average Exchange Rate (JPY)

	FY14 April-March	FY15 April-March	FY15 April-June	FY16 April-June	FY16 Assumptions
USD	109	121	121	112	110
EUR	139	132	132	126	125
RUB	2.6	1.9	2.2	1.7	1.6
CNY	17.6	19.0	19.5	17.1	17.4
BRL	45.3	34.1	39.1	31.3	31.2

II. Pipeline

1. Development activities

This table primarily shows the indications for which we will actively pursue approval. We are also conducting additional studies of certain assets to examine their potential for use in further indications and in additional formulations. The listings in this table are limited to the US, EU and Japan, but we are also actively conducting development activities in other regions, including in Emerging Markets.

■ Oncology

Development code <generic name> BRAND NAME	Drug Class (administration route)	Indications / additional formulations	Stage	
MLN9708 <ixazomib> NINLARO® (US)	Proteasome inhibitor (oral)	Relapsed or refractory multiple myeloma	EU Jpn	Filed (Jul '15) Filed (Jul '16)
		Previously untreated multiple myeloma	US EU Jpn	P-III P-III P-III
		Maintenance therapy in patients with newly diagnosed multiple myeloma following autologous stem cell transplant	US EU Jpn	P-III P-III P-III
		Maintenance therapy in patients with newly diagnosed multiple myeloma not treated with stem cell transplant	US EU Jpn	P-III P-III P-III
		Relapsed or refractory primary (AL) amyloidosis	US EU	P-III P-III
		Solid tumors	US	P-I
SGN-35 <brentuximab vedotin> ADCETRIS® (EU, Jpn)	CD30 monoclonal antibody-drug conjugate (injection)	Post-autologous stem cell transplant Hodgkin lymphoma	EU	Approved (Jul '16)
		Relapsed cutaneous T-cell lymphoma	EU	P-III
		Front line Hodgkin lymphoma	EU Jpn	P-III P-III
		Front line mature T-cell lymphoma	EU Jpn	P-III P-III
MLN8237 <alisertib>	Aurora A kinase inhibitor (oral)	Small cell lung cancer	US EU	P-II(b) P-II(b)
TAK-228 < - >	mTORC1/2 inhibitor (oral)	Breast cancer	US EU	P-II(b) P-II(b)
		Renal cancer	US	P-II(b)
		Endometrial cancer	US	P-II(b)
TAK-385 <relugolix>	LH-RH antagonist (oral)	Prostate cancer	Jpn	P-I
TAK-924 <pevonedistat>	NEDD 8 activating enzyme inhibitor (injection)	High risk myelodysplastic syndromes	US EU	P-II(a) P-II(a)
		Solid tumors	-	P-I
TAK-117 < - >	PI3Kα isoform inhibitor (oral)	Non-small cell lung cancer	US EU	P-I/II P-I/II
		Gastric cancer	-	P-I
TAK-202 <plozalizumab>	CCR2 antagonist (injection)	Solid tumors	-	P-I
TAK-243 < - >	UAE inhibitor (injection)	Solid tumors	-	P-I
TAK-580 < - >	pan-Raf kinase inhibitor (oral)	Solid tumors	-	P-I
TAK-659 < - >	SYK kinase inhibitor (oral)	Solid tumors, Hematologic malignancies	-	P-I
TAK-931 < - >	CDC7 inhibitor (oral)	Solid tumors	-	P-I

■ Gastroenterology

Development code <generic name> BRAND NAME	Drug Class (administration route)	Indications / additional formulations	Stage	
TAK-390MR <dexlansoprazole> DEXILANT® (US, EU)	Proton pump inhibitor (oral)	Acid-related diseases in adolescents	US EU	Approved (Jul '16) Approved (May '16)
Cx601 < - >	A suspension of allogeneic expanded adipose-derived stem cells (injection)	Complex perianal fistulas in patients with Crohn's disease	EU	Filed (Mar '16)
MLN0002 <vedolizumab> ENTYVIO® (US, EU)	Humanized monoclonal antibody against α4β7 integrin (injection)	Ulcerative colitis	Jpn	P-III
		Crohn's disease	Jpn	P-III
		Subcutaneous fomulation (for Ulcerative colitis, Crohn's disease)	US EU Jpn	P-III P-III P-III
		Graft-versus-host disease (GvHD) prophylaxis in patients undergoing allogeneic hematopoietic stem cell transplantation	US	P-I
<lubiprostone> AMITIZA® (US)	Chloride channel activator (oral)	New formulation	US	P-III
		Pediatric functional constipation	US	P-III
TAK-438 <vonoprazan> TAKECAB® (Jpn)	Potassium-competitive acid blocker (oral)	Gastro-esophageal reflux disease in patients who have a partial response following treatment with a proton pump inhibitor	-	P-II(b)
TD-8954 < - >	5-HT4 receptor agonist (injection)	Enteral feeding intolerance	-	P-I/II
TAK-828 < - >	RORγt inverse agonist (oral)	Crohn's disease	-	P-I
ATC-1906*1 **< - >**	Dopamine D2/D3 receptor antagonist (oral)	Gastroparesis	-	P-I

*1 Agreement with Altos Therapeutics LLC for an exclusive option for Takeda to acquire Althos beginning on the date of the agreement and continuing for a period of time following the completion of ongoing Phase 1 studies. Altos will be responsible for successfully completing Phase 1 clinical trials

■ CNS

Development code <generic name> BRAND NAME	Drug Class (administration route)	Indications / additional formulations	Stage	
Lu AA21004 <vortioxetine> TRINTELLIX® (US)	Multimodal anti-depressant (oral)	Addition of clinical data to the product label regarding the effect of vortioxetine on certain aspects of cognitive function in adults with Major Depressive Disorder	US	FDA Complete Response Letter (Mar '16)
		Major depressive disorder	Jpn	P-III
		Attention Deficit Hyperactivity Disorder (ADHD) in adult patients	US	P-II(a)
AD-4833/TOMM40	Mitochondrial growth modulator (oral) / Biomarker assay	Delay of onset of mild cognitive impairment due to Alzheimer's disease	US EU	P-III P-III
TVP-1012*2 **<rasagiline>**	Monoamine oxidase B (MAO-B) inhibitor (oral)	Parkinson's disease	Jpn	P-III
TAK-063 < - >	PDE10A inhibitor (oral)	Schizophrenia	US	P-II(a)
TAK-041 < - >	GPR139 agonist (oral)	Negative symptoms and/or cognitive impairment associated with schizophrenia	-	P-I
TAK-058 < - >	5-HT3 receptor antagonist (oral)	Cognitive impairment associated with schizophrenia	-	P-I
TAK-071 < - >	M1 positive allosteric modulator (M1PAM) (oral)	Alzheimer's disease, Lewy body dementia	-	P-I
TAK-653 < - >	AMPA receptor potentiator (oral)	Psychiatric disorders, Neurological diseases	-	P-I
TAK-831 < - >	D-amino acid oxidase (DAAO) inhibitor (oral)	Cerebellar ataxia, Negative symptoms and/or cognitive impairment associated with schizophrenia	-	P-I
TAK-915 < - >	PDE2A inhibitor (oral)	Negative symptoms and/or cognitive impairment associated with schizophrenia	-	P-I
TAK-935 < - >	CH24H inhibitor (oral)	Epilepsy	-	P-I

*2 Brand name in Teva territories: AZILECT®

■ Vaccines

Development code BRAND NAME	Type of vaccine (administration route)	Indications / additional formulations	Stage	
TAK-003	Tetravalent dengue vaccine (injection)	Prevention of dengue fever caused by dengue virus	-	P-II(b)
TAK-214	Norovirus vaccine (injection)	Prevention of acute gastroenteritis (AGE) caused by norovirus	-	P-II(b)
TAK-850	Seasonal influenza vaccine (injection)	Prevention of influenza disease caused by influenza virus subtype A and B contained in the vaccine	Jpn	P-II(a)
TAK-021	EV71 vaccine (injection)	Prevention of hand, foot and mouth disease caused by enterovirus 71	-	P-I

■ Others

Development code <generic name> BRAND NAME	Drug Class (administration route)	Indications / additional formulations	Stage	
SYR-322 **<alogliptin>** NESINA® (US, Jpn) VIPIDIA® (EU)	DPP-4 inhibitor (oral)	Fixed-dose combination with metformin (for Type 2 diabetes)	Jpn	Filed (Sep '15)
TAK-536 **<azilsartan>** AZILVA® (Jpn)	Angiotensin II receptor blocker (oral)	Fixed-dose combination with amlodipine and hydrochlorothiazide (for Hypertension)	Jpn	Filed (Jun '16)
TAK-385 **<relugolix>**	LH-RH antagonist (oral)	Uterine fibroids	Jpn	P-III
		Endometriosis	Jpn	P-II(b)
MT203 **<namilumab>**	GM-CSF monoclonal antibody (injection)	Psoriasis	EU	P-II(b)
		Rheumatoid arthritis	EU Jpn	P-II(b) P-II(a)
TAK-272 **< - >**	Direct renin inhibitor (oral)	Early stage diabetic nephropathy	Jpn	P-II(b)
TAK-020 **< - >**	Bruton's tyrosine kinase inhibitor (oral)	Rheumatoid arthritis	-	P-I
TAK-079 **< - >**	Cytolytic monoclonal antibody (injection)	Rheumatoid arthritis, Systemic lupus erythematosus	-	P-I

■ Recent progress in stage [Progress in stage disclosed since release of FY2015 results (May 10th, 2016)]

Development code <generic name>	Indications / additional formulations	Country/Region	Progress in stage
TAK-390MR <dexlansoprazole>	Acid-related diseases in adolescents	EU	Approved (May '16)
TAK-390MR <dexlansoprazole>	Acid-related diseases in adolescents	US	Approved (Jul '16)
SGN-35 <brentuximab vedotin>	Post-autologous stem cell transplant Hodgkin lymphoma	EU	Approved (Jul '16)
TAK-536 <azilsartan>	Fixed-dose combination with amlodipine and hydrochlorothiazide (for Hypertension)	Jpn	Filed (Jun '16)
MLN9708 <ixazomib>	Relapsed or refractory multiple myeloma	Jpn	Filed (Jul '16)
TAK-438 <vonoprazan>	Gastro-esophageal reflux disease in patients who have a partial response following treatment with a proton pump inhibitor	-	P-II(b)
MLN0002 <vedolizumab>	Graft-versus-host disease (GvHD) prophylaxis in patients undergoing allogeneic hematopoietic stem cell transplantation	US	P-I
TAK-041 < - >	Negative symptoms and/or cognitive impairment associated with schizophrenia	-	P-I
TAK-071 < - >	Alzheimer's disease, Lewy body dementia	-	P-I
TAK-202 <**plozalizumab**>	Solid tumors	-	P-I

■ Discontinued projects [Discontinuation disclosed since release of FY2015 results (May 10th, 2016)]

Development code <generic name>	Indications (Stage)	Reason
<febuxostat XR>	Extended release formulation (for Hyperuricemia) (US P-III)	Discontinued based on P-III results
NE-58095NF <risedronate>	Additional formulation; change of the dosage and administration (for Osteoporosis) (Jpn P-II/III)	Development terminated for strategic reasons based upon the outcome of the clinical study

■ Revised collaboration agreement [Revision disclosed since release of FY2015 results (May 10th, 2016)]

Development code <generic name>	Indications (Stage)	Reason
AMG 386 <trebananib>	Ovarian cancer (Jpn P-III)	P-III results of AMG 386 did not meet the pre-defined criteria. The rights for this molecule have been returned to Amgen.
TAK-385 <relugolix>	Prostate cancer (US, EU P-II(b))	In June 2016, Takeda granted Myovant an exclusive, worldwide license to relugolix, excluding Japan and certain other Asian countries
AMG 403 <fulranumab>	Pain (Jpn P-I)	The rights for AMG 403 have been returned to Amgen due to a revision of development strategy.

■ Clinical study protocol summaries

All clinical study protocol summaries are disclosed on the English-language web-site (http://www.takeda.com/c-t/) and all clinical study protocol information in the Japanese-language is disclosed on the Japanese-language web-site (http://www.takeda.co.jp/c-t/).
We anticipate that this disclosure assure transparency of information on the clinical trials for the benefit of healthcare professionals, their patients and other stakeholders, which we believe will contribute to the appropriate use of Takeda's products worldwide.

2. Research Activities

■ Main joint research activities

Oncology

Partner	Country	Research subject	Schedule
Seattle Genetics	US	Antibody-Drug Conjugate technology	Mar '09 -
Mersana Therapeutics	US	Antibody-Drug Conjugate technology	Apr '14 -
ImmunoGen, Inc.	US	Antibody-Drug Conjugate technology	Mar '15 -
National Cancer Center of Japan	Japan	A partnership to develop basic research to clinical development by promoting exchanges among researchers, physicians, and others engaged in anti-cancer drug discovery and cancer biology research	Apr '15 - Apr '18
M2Gen	US	Genomic data from cancer patients	Jun '16 -

Gastroenterology

Partner	Country	Research subject	Schedule
Cour Pharmaceutical Development Company	US	Immune modulating therapies for the potential treatment of celiac disease and other gastrointestinal diseases, utilizing Cour's Tolerizing Immune Modifying nanoParticle (TIMP) platform	Dec '15 -
Enterome	France	Microbiome targets thought to play crucial roles in gastrointestinal disorders, including inflammatory bowel diseases (e.g. ulcerative colitis) and motility disorders (e.g. irritable bowel syndrome).	Jan '16 -
enGene	Canada	Novel therapies for specialty gastrointestinal (GI) diseases using enGene's "Gene Pill" gene delivery platform	Jan '16 -

CNS

Partner	Country	Research subject	Schedule
Zinfandel Pharmaceuticals	US	Alzheimer's Disease Biomarker TOMM40	Dec '10 -
Kyoto University	Japan	Treatments for obesity and schizophrenia based on CNS control	Jan '11 - Mar '16
NsGene	US	Encapsulated cell therapies for the potential treatment of Parkinson's disease	Jan '16 -

Other / Multiple Therapeutic Area

Partner	Country	Research subject	Schedule
Tri-Institutional Therapeutics Discovery Institute	US	Collaboration of academic institutions and industry to more effectively develop innovative treatments and therapies	Oct '13 - Jun '17
Trianni, Inc.	US	Trianni's transgenic mouse platform to identify fully human monoclonal antibodies against disease targets in all therapeutic areas	Mar '14 -
MacroGenics	US	Product candidates that will be directed against jointly selected pairs of molecular targets and using MacroGenics' Dual-Affinity Re-Targeting (DART®) proprietary platform.	Sep '14 -
Keio University, Niigata University	Japan	The search for and functional analysis of disease-related RNA-binding proteins, that may lead to treatments in the areas such as CNS and oncology.	Mar '15 - Mar '18
Center for iPS Cell Research Application (CiRA), Kyoto University	Japan	Clinical applications of iPS cells in areas such as heart failure, diabetes mellitus, neuro-psychiatric disorders and cancer	Apr '15 - Mar '25
Gencia LLC	US	Mitochondrial Associated Glucocorticoid Receptors (MAGR) agonists for potential use primarily in hematological and inflammatory diseases	Aug '15 -
Astellas, Daiichi Sankyo	Japan	Fundamental biomarker data on healthy adult volunteers in order to optimize and accelerate the development of innovative medicines	May '16 -
Ultragenyx	US	Rare genetic diseases	Jun '16 - May '21

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