Better Health, Brighter Future

Takeda Quarterly Financial Report

For the Quarter Ended September 30, 2022

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Financial Highlights

Selected Financial Results

Takeda uses certain non-IFRS measures to supplement the analysis of results of operations under International Financial Reporting Standards ("IFRS"). Refer to "*Financial Appendix*" for the definition and reconciliations of non-IFRS Measures.

Results of Operation

	Six-month period Ended September 30,		Change versus the same period of the previous fiscal year		
(JPY millions)	2021	2022	JPY	Actual % Change	CER % Change
Revenue	1,794,423	1,974,771	180,349	10.1 %	(2.3)%
Operating profit	345,979	254,953	(91,026)	(26.3)%	(30.7)%
Profit before tax	284,425	220,022	(64,403)	(22.6)%	(29.2)%
Net profit for the period	183,721	166,753	(16,967)	(9.2)%	(21.1)%
Basic earnings per share (yen)	117.08	107.62	(9.46)	(8.1)%	(20.1)%

Core Results

Results of Core Operations

	Six-month period Ended September 30,		Change versus the same period of the previous fiscal year		
(JPY billions)	2021	2022	JPY	Actual % change	CER % change
Core Revenue	1,661.4	1,974.8	313.4	18.9 %	5.5 %
Core Operating Profit	485.7	625.2	139.4	28.7 %	14.5 %
Core EPS (yen)	214	288	74	34.6 %	15.8 %

Leverage

	As of	
(JPY billions)	March 31, 2022	September 30, 2022
Net debt	(3,233.8)	(3,358.0)
Adjusted EBITDA	1,168.0	1,313.1
Net debt/Adjusted EBITDA ratio	2.8 x	2.6 x

Consolidated Cash Flows

	Six-month period Ended September 30,		Change versus the same period of the previous fiscal year	
(JPY millions)	2021	2022	JPY	%
Cash flows from (used in) operating activities	400,011	305,234	(94,777)	(23.7) %
Cash flows from (used in) investing activities	(103,349)	(121,920)	(18,571)	(18.0) %
Cash flows from (used in) financing activities	(658,405)	(267,593)	390,812	59.4 %

Free Cash Flow

	Six-month period Ended September 30,		Change versus the same period of the previous fiscal year	
(JPY billions)	2021	2022	JPY	%
Free Cash Flow	315.6	296.9	(18.7)	(5.9) %

Consolidated Financial Position

(JPY millions)	As of March 31, 2022	As of September 30, 2022	Change versus the previous fiscal year-end JPY	Change versus the previous fiscal year-end %
Non-current Assets	10,584,376	11,843,231	1,258,856	11.9 %
Current Assets	2,593,642	2,745,616	151,973	5.9 %
Total Assets	**13,178,018**	**14,588,847**	**1,410,829**	**10.7 %**
Non-current Liabilities	5,348,764	5,483,638	134,874	2.5 %
Current Liabilities	2,145,730	2,391,720	245,990	11.5 %
Total Liabilities	**7,494,495**	**7,875,358**	**380,864**	**5.1 %**
Equity	**5,683,523**	**6,713,489**	**1,029,965**	**18.1 %**
Total liabilities and equity	**13,178,018**	**14,588,847**	**1,410,829**	**10.7 %**

Forecast and Management Guidance

*Forecast**

(JPY billions)	Original Forecast (May 11, 2022)	Revised Forecast (October 27, 2022)	vs. Original Forecast	
Reported:				
Revenue	3,690.0	3,930.0	240.0	6.5 %
Operating profit	520.0	530.0	10.0	1.9 %
Profit before tax	411.0	426.0	15.0	3.6 %
Net profit for the year (attributable to owners of the Company)	292.0	307.0	15.0	5.1 %
EPS (JPY)	188.13	197.83	9.70	5.2 %
Non-IFRS Measures				
Core Operating Profit	1,100.0	1,180.0	80.0	7.3 %
Core EPS (JPY)	484	525	41	8.4 %
Free cash flow (including announced divestitures)	600.0 - 700.0	650.0 - 750.0		
Dividends per share (Yen)	180	180	—	—

*Refer to *Analysis of Results of Operations, Financial Position, and Cash Flow "Outlook for the Fiscal Year Ending March 31, 2023"* for details.

*Management Guidance**

The full year management guidance for the fiscal year ending March 31, 2023 (FY2022) has not been changed from the management guidance announced at the FY2021 financial results announcement on May 11, 2022.

	FY2022
Core Revenue Growth	Low-single-digit growth
Core Operating Profit Growth	High-single-digit growth
Core EPS Growth	High-single-digit growth

*Refer to "*Financial Appendix*" for the definition and reconciliations of core financial measures and CER (Constant Exchange Rate).

Revenue by Region

		JPY (millions) Period Ended September 30, 2022							
		Japan	United States	Europe and Canada	Asia (excluding Japan)	Latin America	Russia/CIS	Other	Total
	2021	390,868	838,376	353,970	89,706	61,372	25,088	35,041	1,794,423
	2022	261,353	1,032,526	408,964	105,718	83,258	37,817	45,135	1,974,771
Change versus the previous year	JPY	(129,516)	194,149	54,994	16,012	21,886	12,729	10,094	180,349
	%	(33.1)%	23.2 %	15.5 %	17.8 %	35.7 %	50.7 %	28.8 %	10.1 %

"Other" includes the Middle East, Oceania and Africa. This disaggregation provides revenue attributable to countries or regions based on the customer location.

Recent Developments

Pipeline and R&D Activities

Research and development expenses for the six-month period ended September 30, 2022 were 297.8 billion JPY.

Takeda's R&D engine is focused on translating science into highly innovative, life-changing medicines that make a critical difference to patients. Takeda supports dedicated R&D efforts across three areas: Innovative Biopharma, Plasma-Derived Therapies ("PDT") and Vaccines. The R&D engine for Innovative Biopharma is the largest component of our R&D investment and has produced exciting new molecular entities ("NMEs") that represent potential best-in-class and/or first-in-class medicines in areas of high unmet medical need across our core therapeutic areas (oncology, rare genetics and hematology, neuroscience, and gastroenterology ("GI")). Over the past several years, including via our acquisition of Shire, we are working to harness the potential of cell and gene therapies by investing in new capabilities and next-generation platforms internally and through a network of partnerships. We are embracing data and digital technologies to improve the quality of innovation and accelerate execution.

Takeda's pipeline is positioned to support both the near-term and long-term sustained growth of the company. Once first approval of a product is achieved, Takeda R&D is equipped to support geographic expansions of such approval and approvals in additional indications, as well as post-marketing commitment and potential additional formulation work. Takeda's R&D team works closely with the commercial functions to maximize the value of marketed products and reflect commercial insights in its R&D strategies and portfolio.

Major progress on R&D events since April 2022 are listed as follows:

R&D pipeline

Oncology

In Oncology, Takeda endeavors to deliver novel medicines to patients with cancer worldwide through a commitment to breakthrough innovation and a passion for improving the lives of patients. Takeda focuses on three key areas in oncology: (1) building on its foundational expertise in hematologic malignancies through continued investment in lifecycle management programs for marketed products NINLARO, ADCETRIS, and ICLUSIG, as well as in pipeline assets in Multiple Myeloma, and other blood cancers; (2) further developing its portfolio in lung cancer with the marketed products ALUNBRIG, EXKIVITY, and development programs in targeted lung cancer populations; and (3) pursuing novel immuno-oncology targets and next-generation platforms (e.g., modakafusp alfa (TAK-573) and subasumstat (TAK-981)) harnessing the power of the innate immune system, internally and through external partnerships.

ADCETRIS / Generic name: brentuximab vedotin

- In May 2022, Takeda announced that it received an approval from the Japanese Ministry of Health, Labour and Welfare (MHLW) for a partial change in approved items of the manufacturing and marketing approval of ADCETRIS as a first-line treatment for CD30-positive Hodgkin lymphoma in pediatric patients.
- In May 2022, Takeda and Seagen Inc. announced the overall survival (OS) data from the Phase 3 ECHELON-1 clinical trial of an ADCETRIS plus chemotherapy combination. The data was presented in an oral session at the 59th American Society of Clinical Oncology (ASCO) Annual Meeting and at the 27th European Hematology Association (EHA) Annual Meeting. Data from the ECHELON-1 trial demonstrated a statistically significant improvement in OS in adult patients with previously untreated Stage III or IV classical Hodgkin lymphoma treated with ADCETRIS plus doxorubicin, vinblastine and dacarbazine (A+AVD) vs. doxorubicin, bleomycin, vinblastine, and dacarbazine (ABVD). With approximately six years median follow up (73 months), patients receiving A+AVD had a 41 percent reduction in the risk of death (hazard ratio [HR] 0.59; 95% confidence interval [CI]: 0.396 to 0.879), with an estimated OS rate (95% CI) of 93.9% (91.6, 95.5) at 6 years. The safety profile of ADCETRIS was consistent with previous studies, and no new safety signals were observed.

VECTIBIX / Generic name: panitumumab

- In June 2022, Takeda announced the data from the PARADIGM, a Phase 3 clinical trial of VECTIBIX in chemotherapy-naive Japanese patients with unresectable advanced recurrent colorectal cancer with wild-type *RAS* gene, was presented at the Plenary Session of the American Society of Clinical Oncology (ASCO) Annual Meeting. PARADIGM is the first prospective trial to evaluate appropriate treatment options for metastatic colorectal cancer patients with wild-type *RAS* gene and left-side primary tumor (descending colon, sigmoid colon, and rectum). The results of the trial showed that the mFOLFOX6 + VECTIBIX combination provides a statistically significant

improvement in overall survival (OS) over the mFOLFOX6 + bevacizumab combination in patients with a left-sided primary tumor or regardless of tumor locations (median OS for left-sided tumors: 37.9 vs. 34.3, HR=0.82 [95.798% CI: 0.68-0.99], p=0.031, overall median OS: 36.2 vs. 31.3, HR=0.84 [95% CI: 0.72-0.98], p=0.030). The safety profile of VECTIBIX administration in this study was similar to clinical study results previously published.

Rare Genetics & Hematology

In Rare Genetics & Hematology, Takeda focuses on several areas of high unmet medical need. In hereditary angioedema, Takeda aspires to transform the treatment paradigm, including through TAKHZYRO, with continued investment in lifecycle management programs including evaluating TAKHZYRO in Bradykinin-mediated angioedema with normal C1-inhibitor. In rare hematology, Takeda focuses on addressing today's needs in the treatment of bleeding disorders, including through ADVATE and ADYNOVATE/ADYNOVI, as well as on the development of pipeline assets including TAK-755 for the treatment of immune thrombotic thrombocytopenic purpura (iTTP) and congenital thrombotic thrombocytopenic purpura (cTTP). In rare genetics and others, Takeda is developing treatments for lysosomal storage disorders (LSDs), with a portfolio that includes commercial products such as ELAPRASE and REPLAGAL, and late-stage investigational therapies and pipeline candidates like pabinafusp alfa for Hunter Syndrome. In addition, Takeda aims to redefine the management of post-transplant cytomegalovirus (CMV) infection/disease with LIVTENCITY. We are also building differentiated gene therapy capabilities for the development and delivery of functional cures to patients with rare diseases.

TAKHZYRO / Generic name: lanadelumab

- In April 2022, Takeda announced that the Phase 3 SPRING study evaluating the safety profile and pharmacokinetics of TAKHZYRO in patients 2 to <12 years of age is complete and has met its primary objectives. The safety profile was consistent with that seen in the clinical program for patients 12 years of age and older; there were no serious adverse events and no dropouts due to adverse events. The study also successfully reached the secondary objective evaluating the clinical activity/outcome of TAKHZYRO in preventing hereditary angioedema (HAE) attacks as well as characterizing the pharmacodynamics of TAKHZYRO in pediatric subjects 2 to <12 years of age.
- In July 2022, Takeda announced late-breaking data from the Phase 3 SPRING study presented at the European Academy of Allergy and Clinical Immunology (EAACI) Hybrid Congress 2022. The primary objective of the open-label, multicenter, Phase 3 (SPRING) study was to evaluate the safety and pharmacokinetics (PK) of TAKHZYRO in patients aged 2 to <12 years with HAE. Clinical outcomes (prevention of HAE attacks) were measured as a secondary objective. In this study, HAE patients received a dose of 150 mg every 4 weeks in patients 2 to <6 years and every 2 weeks in patients aged 6 to <12 years. TAKHZYRO reduced the rate of HAE attacks in children by a mean of 94.8% compared to baseline, from 1.84 attacks per month to 0.08 attacks during treatment. The majority of patients (76.2%) were attack-free during the 52-week treatment period with an average of 99.5% attack-free days. No deaths or serious treatment-emergent adverse events (TEAEs) were reported during the study, and no patients withdrew from the study due to TEAEs. These results are consistent with earlier studies with adult and adolescent patients. These data will be submitted to global regulatory authorities to evaluate a potential label expansion for TAKHZYRO to include the younger patient population.
- In October 2022, Takeda announced that the U.S. Food & Drug Administration (FDA) has accepted a supplemental Biologics License Application (sBLA) for the potential expanded use of TAKHZYRO for prophylaxis to prevent attacks of hereditary angioedema (HAE) in pediatric patients 2 to <12 years of age. The FDA has granted priority review of the application. If approved, TAKHZYRO could potentially become the first treatment of its kind for this population. The sBLA is based on data from the SPRING study, the open-label Phase 3 trial for HAE patients under the age of 12.

LIVTENCITY / Generic name: maribavir

- In April 2022, Takeda announced that it presented four company-sponsored abstracts on LIVTENCITY at the Tandem Transplantation & Cellular Therapy Meetings in Salt Lake City, Utah, and the 32nd European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) in Lisbon, Portugal. The abstracts include an exploratory analysis of the Phase 3 SOLSTICE trial showing LIVTENCITY-treated patients with post-transplant cytomegalovirus (CMV) infections/disease had reductions in hospitalizations (34.8%; p=0.021) and length of hospital stay (53.8%; p=0.029), compared to those treated with conventional antiviral therapies. In addition, a post-hoc, sub-group analysis of the Phase 3 SOLSTICE trial showed shorter time to first confirmed CMV DNA level less than the lower limit of quantification (<LLOQ) with LIVTENCITY, compared to conventional antiviral therapies, which was consistent with previously reported findings.
- In September 2022, Takeda announced the European Medicines Agency's (EMA) Committee for Medicinal Products for Human Use (CHMP) has recommended the approval of maribavir for the treatment of cytomegalovirus (CMV) infection and/or disease that are refractory (with or without resistance) to one or more prior therapies, including ganciclovir, valganciclovir, cidofovir or foscarnet in adult patients who have undergone a hematopoietic stem cell transplant (HSCT) or solid organ transplant (SOT). The European Commission (EC) will consider the CHMP positive opinion and decide upon potential marketing authorization in the coming months. If approved, maribavir would be the first inhibitor of CMV-specific UL97 protein kinase in the European Union (EU) for this indication. The positive opinion from the CHMP was based on the Phase 3 SOLSTICE trial, which evaluated the safety and efficacy of maribavir versus conventional antiviral therapies (one or more of ganciclovir, valganciclovir, foscarnet or cidofovir) for the treatment of patients with refractory CMV infection, with or without resistance.

ADYNOVATE/ADYNOVI / Generic name: antihemophilic factor (recombinant), PEGylated

- In June 2022, Takeda announced that it submitted a Supplemental New Drug Application (sNDA) of ADYNOVATE for a partial change in approved items of the manufacturing and marketing approval, which is for dosage and administration in prophylaxis use in Japan. The application is based primarily on the results of the global Phase 3 clinical trials, CONTINUATION study and PROPEL study.

FIRAZYR / Generic name: icatibant

- In August 2022, Takeda announced that it received an approval from the Japanese Ministry of Health, Labour and Welfare (MHLW) for a partial change in approved items of the manufacturing and marketing approval for FIRAZYR as a treatment for pediatric patients two years of age or older with hereditary angioedema (HAE). The approval is based primarily on a Japanese Phase 3 open-label trial and a Phase 3 open-label trial outside of Japan evaluating the safety, efficacy and pharmacokinetics of subcutaneous administration of FIRAZYR in pediatric HAE patients aged between two and 18 years.

Development code: TAK-611

- In June 2022, Takeda announced that it has received Orphan Drug Designation from the Japanese Ministry of Health, Labour and Welfare (MLHW) for its recombinant human arylsulfatase A (rhASA) TAK-611 for the expected indication of Metachromatic Leukodystrophy (MLD). Currently, there are no treatments indicated for MLD in Japan. TAK-611 is an rhASA for enzyme replacement therapy for MLD, and global Phase 2b studies and other studies are ongoing.

Neuroscience

In Neuroscience, Takeda is focusing its R&D investments on potentially transformative treatments for neurological and neuromuscular diseases of high unmet need, and building its pipeline through a combination of in-house expertise and partnerships. By harnessing advances in disease biology understanding, translational tools, and innovative modalities, Takeda is primarily focusing on rare neurology, in particular, on potential investigative therapies for sleep-wake disorders such as narcolepsy and idiopathic hypersomnia with a franchise of orexin-2 receptor agonists (TAK-861, TAK-925, etc.), and rare epilepsies with soticlestat (TAK-935). Additionally, Takeda also makes targeted investments to investigate well-defined segments of neuromuscular diseases, neurodegenerative diseases and movement disorders.

Development code: TAK-994

- In June 2022, Takeda decided not to proceed with further development activities of TAK-994 following an assessment of the benefit/risk profile. After a safety signal had emerged in Phase 2 studies of TAK-994 (TAK-994-1501 study and TAK-994-1504 study), in October 2021, Takeda had decided to stop both Phase 2 studies early.

Gastroenterology (GI)

In Gastroenterology, Takeda focuses on delivering innovative, life-changing therapeutics for patients with gastrointestinal and liver diseases. Takeda is maximizing the potential of our inflammatory bowel disease (IBD) franchise around ENTYVIO, including development of a subcutaneous formulation, a needle free device, and expanding into other indications such as active chronic pouchitis. Takeda is also expanding its position with GATTEX / REVESTIVE and ALOFISEL, which are in ongoing and planned Phase 3 trials to support further potential geographic expansion, including in the U.S. Furthermore, Takeda is progressing a pipeline built through partnerships exploring opportunities in IBD, celiac disease, select liver diseases, and motility disorders. Fazirsiran (TAK-999) is an example of an addition through partnership and a potential first-in-class RNAi for alpha-1 antitrypsin-deficiency associated liver disease in late-stage development.

Development code: TAK-999 / Generic name: fazirsiran

- In June 2022, Takeda and Arrowhead Pharmaceuticals Inc. announced that results from a Phase 2 clinical study (AROAAT-2002) of investigational fazirsiran for the treatment of liver disease associated with alpha-1 antitrypsin deficiency (AATD) were published in the New England Journal of Medicine (NEJM) and presented in an oral presentation at The International Liver Congress 2022 - The Annual Meeting of the European Association for the Study of the Liver (EASL). Fazirsiran is a potential first-in-class investigational RNA interference (RNAi) therapy designed to reduce the production of mutant alpha-1 antitrypsin protein (Z-AAT) as a potential treatment for the rare genetic liver disease associated with AATD. Fazirsiran was granted Breakthrough Therapy Designation (BTD) in July 2021 and Orphan Drug Designation in February 2018 for the treatment of AATD from the U.S. Food and Drug Administration (FDA).

Plasma-Derived Therapies (PDT)

Takeda has created a dedicated PDT business unit with a focus to manage the business end-to-end, from plasma collection to manufacturing, R&D, and commercialization. In PDT, we aspire to develop life-saving plasma derived treatments which are essential for patients with a variety of rare and complex chronic diseases. The dedicated R&D organization in PDT is charged with maximizing the value of existing therapies, identifying new targeted therapies, and optimizing efficiencies of current product manufacturing. Near-term, our priority is focused on delivering value from our broad immunoglobulin portfolio (HYQVIA, CUVITRU, GAMMAGARD and GAMMAGARD S/D) through pursuit of new indications, geographic expansions, and enhanced patient experience through integrated healthcare technologies. In our hematology and specialty care portfolio, our priority is pursuing new indication and formulation development opportunities for PROTHROMPLEX (4F-PCC), FEIBA, CEPROTIN and ARALAST. Additionally, we are developing next generation immunoglobulin products with 20% fSCIg (TAK-881), IgG Low IgA (TAK-880) and pursuing other early stage opportunities (e.g. hypersialylated Immunoglobulin (hsIgG)) that would add to our diversified commercial portfolio of more than 20 therapeutic products distributed worldwide.

HYQVIA / Generic name: Immunoglobulin (IG) Infusion 10% (Human) w/ Recombinant Human Hyaluronidase

- In July 2022, Takeda announced that ADVANCE-1, a randomized, placebo-controlled, double-blind Phase 3 clinical trial evaluating HYQVIA for the maintenance treatment of chronic inflammatory demyelinating polyradiculoneuropathy (CIDP), met its primary endpoint. The pivotal ADVANCE-1 clinical trial evaluated the efficacy, safety and tolerability of HYQVIA in 132 adult patients with CIDP who had been on a stable dosing regimen of intravenous immunoglobulin (IVIG) therapy for at least three months prior to infusion. Analysis of the primary endpoint shows that HYQVIA, when administered at the same dose and dosing interval as the patient's previous IVIG, reduced CIDP relapse as compared to placebo [9.7% vs 31.4%, respectively; p-value = 0.0045], as measured by Inflammatory Neuropathy Cause and Treatment (INCAT). The majority of patients in the study received a four-week dosing regimen of HYQVIA. Of the 62 patients treated with HYQVIA, the majority of treatment-related adverse events were reported as mild or moderate. No new safety risks were reported with HYQVIA. The safety profile of HYQVIA in CIDP will be further supported by data from the ongoing ADVANCE-3 clinical trial, the longest extension study of its kind with up to six years of follow-up data on some participants. Upon full data analyses, Takeda intends to submit applications for HYQVIA to regulatory authorities in the United States and European Union in fiscal year 2022.

CUVITRU / Generic name: Immunoglobulin (IG) Infusion 20% (Human)

- In October 2022, Takeda announced that it submitted a New Drug Application (NDA) to the Japanese Ministry of Health, Labour and Welfare (MHLW) for manufacturing and marketing approval of a subcutaneous injection of 20% human immunoglobulin for the expected indications of agammaglobulinemia and hypogammaglobulinemia. The application is based primarily on a Phase 3 trial in Japanese patients with primary immunodeficiency syndrome (PID) and two Phase 2/3 trials outside of Japan in patients with PID. In these trials, the subcutaneous injection of 20% human immunoglobulin demonstrated its efficacy and safety as a treatment for patients with agammaglobulinemia or hypogammaglobulinemia.

Vaccines

In Vaccines, Takeda is applying innovation to tackle some of the world's most challenging infectious diseases such as dengue (TAK-003), COVID-19 (NUVAXOVID), and zika (TAK-426). To support the expansion of our pipeline and the development of our programs, we have entered into partnerships with government organizations in Japan and the U.S., and leading global institutions. Such partnerships have been essential in building the critical capabilities that will be necessary to deliver on our programs and realize their full potential.

SPIKEVAX (formerly COVID-19 Vaccine Moderna) Intramuscular Injection / Development code: mRNA-1273 (Japanese development code: TAK-919)

- In May 2022, Takeda and Moderna, Inc. (Moderna) announced to transfer the marketing authorization in Japan for SPIKEVAX from Takeda to Moderna in Japan (Moderna Japan) as of August 1, 2022. Moderna Japan will assume responsibility for all SPIKEVAX activities, including import, local regulatory, development, quality assurance and commercialization. Takeda has agreed with Moderna that it will continue to provide distribution support under the current national vaccination campaign for Moderna COVID-19 vaccines for a transitional period.

NUVAXOVID Intramuscular Injection / Development code: NVX-CoV2373 (Japanese development code: TAK-019)

- In April 2022, Takeda announced that it has received manufacturing and marketing approval from the Japanese Ministry of Health, Labour and Welfare (MHLW) for NUVAXOVID Intramuscular Injection (NUVAXOVID), a novel recombinant protein-based COVID-19 vaccine, for primary and booster immunization in individuals aged 18 and older. The approval is based on interim results from a Phase 1/2 study conducted by Takeda in Japan and several studies conducted by Novavax, including two pivotal Phase 3 clinical trials in the U.K., the U.S. and Mexico, Phase 1/2 studies in Australia and the U.S., as well as safety and efficacy data from outside of Japan which was subsequently submitted for review. Interim results from the Phase 1/2 study in Japan were positive and consistent with previously reported clinical trial results. No serious adverse events were reported in the NUVAXOVID treatment group, and the vaccine candidate was well-tolerated. Additionally, studies conducted by Novavax, including Phase 1/2 studies conducted in Australia and the U.S. as well as a Phase 2 study conducted in South Africa, evaluated safety and efficacy of booster immunization. In these studies, subjects received a booster dose 6 months after primary immunization, and compared to pre-booster levels, a significant elevation of antibody titer was observed without major safety concerns.
- In May 2022, Takeda announced that NUVAXOVID Intramuscular Injection (NUVAXOVID) has been designated as "special vaccination" status in Japan for primary (first and second dosing) and booster (third dosing) immunization following the revision of laws and regulations for COVID-19 vaccines specified under the Preventive Vaccination Law. NUVAXOVID is stored at refrigerated temperature of 2-8℃, like many other medicines and vaccines, which enables transportation and storage with conventional vaccine supply chain.

Development code: TAK-003 / Generic name: Dengue tetravalent vaccine [live,attenuated]

- In June 2022, Takeda announced that TAK-003 demonstrated continued protection against dengue fever through four and a half years (54 months), with no important safety risks identified, in the pivotal Phase 3 Tetravalent Immunization against Dengue Efficacy Study (TIDES) trial, which was presented at the 8th Northern European Conference on Travel Medicine (NECTM8). Through four and a half years, TAK-003 demonstrated 84.1% vaccine efficacy (VE) (95% CI: 77.8, 88.6) against hospitalized dengue, with 85.9% VE (78.7, 90.7) in seropositive individuals and 79.3% VE (63.5, 88.2) in seronegative individuals. TAK-003 also demonstrated overall VE of 61.2% (95% CI: 56.0, 65.8) against virologically-confirmed dengue, with 64.2% VE (58.4, 69.2) in seropositive individuals and 53.5% VE (41.6, 62.9) in seronegative individuals. Observations of VE varied by serotype and remained consistent with previously reported results. TAK-003 was generally well tolerated, and there were no important safety risks identified. No evidence of disease enhancement was observed over the 54-month follow-up exploratory analysis.
- In August 2022, Takeda announced that its dengue vaccine, QDENGA*, was approved by the Indonesian National Agency for Drug and Food Control, Badan Pengawas Obat dan Makanan (BPOM), for the prevention of dengue disease caused by any serotype in individuals six years to 45 years of age. QDENGA is the only dengue vaccine approved in Indonesia for use in individuals regardless of previous dengue exposure and without the need for pre-vaccination testing. The approval of QDENGA is based on results through three years after vaccination from the ongoing Phase 3 TIDES trial.

  *QDENGA is the approved brand name of TAK-003 in Indonesia.
- In October 2022, Takeda announced that the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA) recommended the approval of Takeda's dengue vaccine candidate, TAK-003, for the prevention of dengue disease caused by any serotype in individuals four years of age and older in Europe and in dengue-endemic countries participating in the parallel EU-M4all procedure. The final step in the path to approval in Europe is Marketing Authorization from the EMA, which is expected in the coming months. Regulatory reviews will also progress in dengue-endemic countries in Latin America and Asia. CHMP's positive opinion was supported by results across five Phase 1, 2 and 3 trials with more than 28,000 children and adults. This includes four and a half years of follow-up data from the global, pivotal Phase 3 TIDES trial, consistent with the World Health Organization's (WHO) recommendation to obtain three to five years of follow-up data after the completion of a primary dengue vaccination in order to most accurately assess safety and efficacy.

Building a sustainable research platform / Enhancing R&D collaboration

In addition to our concentrated efforts to increase our in-house R&D capabilities, external partnerships with third-party partners are a key component of our strategy for enhancing our R&D pipeline. Our strategy to expand and diversify our external partnerships allows us to take part in research of a wide variety of new products and increases the chances that we will be able to take part in a major research-related breakthrough.

- In October 2022, Takeda, Zedira GmbH and Dr. Falk Pharma GmbH announced a collaboration and licensing agreement to develop ZED1227/TAK-227, a Phase 2b investigational therapy for the treatment of celiac disease. TAK-227 is a potential first-in-class therapy designed to prevent the immune response to gluten in celiac disease, a serious autoimmune disease where the ingestion of gluten leads to inflammation and damage to the small intestine. There are currently no approved therapies for the treatment of celiac disease. TAK-227 is a selective, oral small molecule designed to inhibit tissue transglutaminase (TG2), an enzyme that generates immunogenic gluten peptide fragments upon the breakdown of gluten in the stomach and intestinal tissue. TAK-227 targets the dysregulated transglutaminase to prevent mucosal damage in the small intestine by preventing the body's immune response to gluten, a disease process mediated by activation of gluten-specific T cells. Under the terms of the agreement, Takeda and Dr. Falk Pharma will conduct global clinical studies for TAK-227 in celiac disease. Takeda will receive an exclusive license to develop and commercialize TAK-227 in the United States and other territories outside of Europe, Canada, Australia and China.

Analysis of Results of Operations, Financial Position, and Cash Flow

Results of Operations (Reported)

Consolidated Financial Results (April 1 to September 30, 2022)

Billion JPY or percentage

	FY2021 H1	FY2022 H1	Change versus the same period of the previous fiscal year		
				Actual % Change	CER % Change*1
Revenue	1,794.4	1,974.8	180.3	10.1 %	(2.3)%
Cost of sales	(517.1)	(598.3)	(81.3)	15.7 %	3.9 %
Selling, general and administrative expenses	(431.9)	(480.2)	(48.4)	11.2 %	(1.4)%
Research and development expenses	(254.1)	(297.8)	(43.7)	17.2 %	1.4 %
Amortization and impairment losses on intangible assets associated with products	(205.5)	(273.6)	(68.1)	33.1 %	13.2 %
Other operating income	19.5	13.5	(6.1)	(31.0)%	(36.9)%
Other operating expenses	(59.4)	(83.4)	(23.9)	40.2 %	22.0 %
Operating profit	346.0	255.0	(91.0)	(26.3)%	(30.7)%
Finance income and (expenses), net	(58.0)	(33.6)	24.5	(42.2)%	(35.2)%
Share of loss of investments accounted for using the equity method	(3.5)	(1.4)	2.2	(61.3)%	(76.7)%
Profit before tax	284.4	220.0	(64.4)	(22.6)%	(29.2)%
Income tax expenses	(100.7)	(53.3)	47.4	(47.1)%	(44.1)%
Net profit for the period	183.7	166.8	(17.0)	(9.2)%	(21.1)%

*1 Please refer to "Financial Appendix" for the definition and reconciliations of Constant Exchange Rate (CER).

Revenue. Revenue for the six-month period ended September 30, 2022 was 1,974.8 billion JPY, an increase of 180.3 billion JPY, or 10.1% (CER % change: -2.3%), compared to the same period of the previous fiscal year. The increase is primarily attributable to growth from business momentum and favorable foreign exchange rates, offsetting the decrease of revenue in the current period due to the sale of a portfolio of diabetes products in Japan to Teijin Pharma Limited for 133.0 billion JPY, which was recorded as revenue in the same period of the previous fiscal year.

Revenue of our core therapeutic areas (i.e. Gastroenterology (“GI”), Rare Diseases, Plasma-Derived Therapies (“PDT”) Immunology, Oncology, and Neuroscience) increased by 315.6 billion JPY, or 22.0%, compared to the same period of the previous fiscal year, to 1,750.2 billion JPY. Each of our core therapeutic areas, except Oncology, contributed to positive revenue growth due to growth from business momentum and favorable foreign exchange rates. Generic erosion and intensified competition impacted certain Oncology products in the current period.

Revenue outside of our core therapeutic areas significantly decreased by 135.2 billion JPY, or 37.6%, compared to the same period of the previous fiscal year to 224.6 billion JPY, largely due to the aforementioned non-recurring 133.0 billion JPY selling price of the diabetes portfolio in Japan recorded as revenue in the same period of the previous fiscal year.

Revenue by Geographic Region

The following shows revenue by geographic region:

Billion JPY or percentage

Revenue:	FY2021 H1	FY2022 H1	Change versus the same period of the previous fiscal year		
				Actual % change	CER % change*1
Japan*2	390.9	261.4	(129.5)	(33.1)%	(33.4)%
United States	838.4	1,032.5	194.1	23.2 %	3.2 %
Europe and Canada	354.0	409.0	55.0	15.5 %	8.3 %
Asia (excluding Japan)	89.7	105.7	16.0	17.8 %	3.8 %
Latin America	61.4	83.3	21.9	35.7 %	18.7 %
Russia/CIS	25.1	37.8	12.7	50.7 %	19.6 %
Other*3	35.0	45.1	10.1	28.8 %	36.7 %
Total	1,794.4	1,974.8	180.3	10.1 %	(2.3)%

*1 Please refer to "Financial Appendix" for the definition and reconciliations of Constant Exchange Rate (CER).

*2 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in the six-month period ended September 30, 2021.

*3 Other includes the Middle East, Oceania and Africa.

Revenue by Therapeutic Area

The following shows revenue by therapeutic area:

Billion JPY or percentage

Revenue:	FY2021 H1	FY2022 H1	Change versus the same period of the previous fiscal year		
				Actual % change	CER % change*1
GI	429.1	546.4	117.3	27.3 %	11.7 %
Rare Diseases	300.1	362.2	62.2	20.7 %	8.3 %
Rare Hematology	141.6	155.7	14.1	10.0 %	(1.5)%
Rare Genetics and Other	158.5	206.5	48.0	30.3 %	17.0 %
PDT Immunology	238.0	314.0	75.9	31.9 %	14.2 %
Oncology	233.7	225.3	(8.4)	(3.6)%	(11.5)%
Neuroscience	233.7	302.3	68.6	29.3 %	10.6 %
Other*2	359.8	224.6	(135.2)	(37.6)%	(41.1)%
Total	1,794.4	1,974.8	180.3	10.1 %	(2.3)%

*1 Please refer to "Financial Appendix" for the definition and reconciliations of Constant Exchange Rate (CER).

*2 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in the six-month period ended September 30, 2021.

Year-on-year change in revenue for this six-month period in each of our main therapeutic areas was primarily attributable to the following products:

- *GI.* In Gastroenterology, revenue was 546.4 billion JPY, a year-on-year increase of 117.3 billion JPY, or 27.3% (CER % change: 11.7%). Growth was driven by Takeda's top-selling product ENTYVIO (for ulcerative colitis ("UC") and Crohn's disease ("CD")), with sales of 346.6 billion JPY and a year-on-year increase of 90.7 billion JPY, or 35.4%. Sales of ENTYVIO in the U.S. increased by 72.5 billion JPY, or 42.3%, to 243.8 billion JPY, driven by a continued increase in the first line biologic inflammatory bowel disease ("IBD") population both in UC and CD and favorable foreign exchange rates. Sales of ENTYVIO in Europe and Canada increased by 12.2 billion JPY, or 18.3%, to 78.8 billion JPY, supported by continued launches of the subcutaneous formulation. In the Growth and Emerging Markets, the increase in sales of ENTYVIO was led by growth in Brazil. Sales of DEXILANT (for acid reflux disease) were 38.0 billion JPY, an increase of 12.3 billion JPY, or 47.8% versus the same period of the previous fiscal year, due to the increased sales of authorized generics in the U.S. Sales of GATTEX/REVESTIVE (for short bowel syndrome) were 48.4 billion JPY, an increase of 11.6 billion JPY, or 31.5%, primarily due to increased market penetration and new country launches, including Japan in August 2021. Sales of TAKECAB/VOCINTI (for acid-related diseases) were 54.7 billion JPY, an increase of 5.6 billion JPY, or 11.4%, versus the same period of the previous fiscal year, primarily due to increased sales in China. In Japan, sales were mainly driven by the expansion of new prescriptions in the Japanese market due to TAKECAB's efficacy in reflux esophagitis and the prevention of recurrence of gastric and duodenal ulcers during low-dose aspirin administration, despite a negative impact associated with the market expansion re-pricing applied in April 2022. Sales of PENTASA (for UC) were 4.7 billion JPY, a decrease of 5.3 billion JPY, or 53.2%, versus the same period of the previous fiscal year due to generic erosion in the U.S. from May 2022.

- *Rare Diseases*. In Rare Diseases, revenue was 362.2 billion JPY, a year-on-year increase of 62.2 billion JPY, or 20.7% (CER % change: 8.3%).

  Revenue in Rare Hematology increased by 14.1 billion JPY, or 10.0% (CER % change: -1.5%), to 155.7 billion JPY. Sales of ADVATE (for hemophilia A), ADYNOVATE/ADYNOVI (for hemophilia A) and FEIBA (for hemophilia A and B) increased by 1.1 billion JPY or 1.8% to 62.4 billion JPY, 4.4 billion JPY or 14.8% to 34.4 billion JPY, and 1.1 billion JPY or 5.6% to 21.3 billion JPY, respectively, primarily due to favorable foreign exchange rates partially offset by negative impacts from competition in the U.S.

  Revenue in Rare Genetics and Other was 206.5 billion JPY, a year-on-year increase of 48.0 billion JPY, or 30.3% (CER % change: 17.0%). Sales of TAKHZYRO (for hereditary angioedema) were 72.8 billion JPY, an increase of 25.3 billion JPY, or 53.2%, versus the same period of the previous fiscal year primarily due to expansion of the prophylactic market, continued geographic expansion and strong patient uptake as well as favorable foreign exchange rates. Sales of REPLAGAL (for Fabry disease) increased by 8.4 billion JPY, or 32.3%, to 34.3 billion JPY, primarily due to the succession to manufacturing and marketing rights in Japan by Takeda upon expiration of the relevant license agreement in February 2022. Sales of other enzyme replacement therapies ELAPRASE (for Hunter syndrome) and VPRIV (for Gaucher disease) increased by 7.6 billion JPY and 2.4 billion JPY, respectively, primarily due to increased sales in Growth and Emerging Markets. Sales of LIVTENCITY (for post-transplant cytomegalovirus ("CMV") infection/disease), which was launched in the U.S. in December 2021, were 4.2 billion JPY in the current period.

- *PDT Immunology.* In Plasma-Derived Therapies ("PDT") Immunology, revenue increased by 75.9 billion JPY, or 31.9% (CER % change: 14.2%) compared to the same period of the previous fiscal year, to 314.0 billion JPY. Aggregate sales of immunoglobulin products were 245.1 billion JPY, an increase of 63.7 billion JPY, or 35.2%, compared to the same period of the previous fiscal year. Sales of each of our three global immunoglobulin brands marked double digit percentage of revenue growth, due to continued strong demand globally and growing supply, especially in the U.S., where the pandemic pressure is now easing, as well as favorable foreign exchange rates. Those include GAMMAGARD LIQUID/KIOVIG (for the treatment of primary immunodeficiency ("PID") and multifocal motor neuropathy ("MMN")), and subcutaneous immunoglobulin therapies (CUVITRU and HYQVIA) which are growing due to their benefit to patients and convenience in administration compared to intravenous therapies. Aggregate sales of albumin products including HUMAN ALBUMIN and FLEXBUMIN (primarily used for hypovolemia and hypoalbuminemia) were 51.8 billion JPY, an increase of 10.0 billion JPY, or 24.0%, versus the same period of the previous fiscal year driven by strong albumin demand in Europe and in Growth and Emerging Markets.

- *Oncology.* In Oncology, revenue was 225.3 billion JPY, a year-on-year decrease of 8.4 billion JPY, or 3.6% (CER % change: -11.5%), impacted by the rapid generic erosion of VELCADE (for multiple myeloma) sales in the U.S. Sales of VELCADE decreased by 34.3 billion JPY, or 62.2%, versus the same period of the previous fiscal year to 20.8 billion JPY predominantly due to multiple generic entrants in the U.S. starting in May 2022. Sales of NINLARO (for multiple myeloma) were 48.8 billion JPY, an increase of 3.0 billion JPY, or 6.6%, versus the same period of the previous fiscal year, aided by favorable foreign exchange rates, which were offset partially by intensified competition and decreased demand mainly in the U.S. Sales of ADCETRIS (for malignant lymphomas) were 41.7 billion JPY, an increase of 7.6 billion JPY, or 22.2%, versus the same period of the previous fiscal year, led by strong growth in countries such as Italy and China. Sales of ICLUSIG (for leukemia) were 23.2 billion JPY, an increase of 5.4 billion JPY, or 30.0%, versus the same period of the previous fiscal year, due to steady growth in the U.S. and also aided by favorable foreign exchange rates. Sales of ALUNBRIG (for non-small cell lung cancer) were 9.7 billion JPY, an increase of 3.5 billion JPY, or 55.6%, benefitting from strong demand in the Growth and Emerging Markets and in Europe. Sales of EXKIVITY (for non-small cell lung cancer), which launched in the U.S. in September 2021, were 1.4 billion JPY in the current period.

- *Neuroscience.* In Neuroscience, revenue was 302.3 billion JPY, a year-on-year increase of 68.6 billion JPY, or 29.3% (CER % change: 10.6%). Sales of VYVANSE/ELVANSE (for attention deficit hyperactivity disorder ("ADHD")) were 211.2 billion JPY, an increase of 52.0 billion JPY, or 32.6%, versus the same period of the previous fiscal year mainly driven by the growth of the adult market in the U.S. and favorable foreign exchange rates. Sales of TRINTELLIX (for major depressive disorder ("MDD")) were 49.8 billion JPY, an increase of 9.7 billion JPY, or 24.3%, versus the same period of the previous fiscal year, due to increasing prescriptions in the U.S. and in Japan. Sales of INTUNIV (for ADHD) increased by 3.0 billion JPY, or 39.9%, versus the same period of the previous fiscal year, to 10.5 billion JPY driven by an increase of sales in Japan. Sales of ADDERALL XR (for ADHD) also increased, by 2.9 billion JPY or 30.1% versus the same period of the previous fiscal year, to 12.5 billion JPY mainly due to sales increases in the U.S.

Cost of Sales. Cost of Sales increased by 81.3 billion JPY, or 15.7% (CER % change: 3.9%), to 598.3 billion JPY. The increase was primarily due to the depreciation of the yen and a sales increase in our core therapeutic areas as compared to the same period of the previous fiscal year. The Cost of Sales Ratio increased by 1.5 pp compared to the same period of the previous fiscal year to 30.3%. The main reason for the increase in the Cost of Sales Ratio was the effect of the sale of a portfolio of diabetes products in Japan with the selling price of 133.0 billion JPY being recorded in revenue in the same period of the previous fiscal year.

Selling, General and Administrative (SG&A) expenses. SG&A expenses increased by 48.4 billion JPY, or 11.2% (CER % change: -1.4%) compared to the same period of the previous fiscal year, to 480.2 billion JPY, due to the impact from the depreciation of the yen in the current period.

Research and Development (R&D) expenses. R&D expenses increased by 43.7 billion JPY, or 17.2% (CER % change: 1.4%) compared to the same period of the previous fiscal year, to 297.8 billion JPY, mainly due to the impact from the depreciation of the yen in the current period.

Amortization and Impairment Losses on Intangible Assets Associated with Products. Amortization and Impairment Losses on Intangible Assets Associated with Products increased by 68.1 billion JPY, or 33.1% (CER % change: 13.2%) compared to the same period of the previous fiscal year, to 273.6 billion JPY, mainly due to the impact from the depreciation of the yen in the current period and an increase in impairment charges for certain assets related to in-process R&D and marketed products.

Other Operating Income. Other Operating Income was 13.5 billion JPY, a decrease of 6.1 billion JPY, or 31.0% (CER % change: -36.9%), compared to the same period of the previous fiscal year primarily due to a 8.4 billion JPY change in fair value of financial assets and liabilities associated with contingent consideration arrangements recognized in the same period of the previous fiscal year.

Other Operating Expenses. Other Operating Expenses were 83.4 billion JPY, an increase of 23.9 billion JPY, or 40.2% (CER % change: 22.0%), compared to the same period of the previous fiscal year, primarily due to increases in reserves and provisions during the current period, including a 12.9 billion JPY increase of valuation reserve for pre-launch inventory, partially offset by a decrease in restructuring expenses attributable to the decrease in Shire integration costs.

Operating Profit. As a result of the above factors, Operating Profit decreased by 91.0 billion JPY, or 26.3% (CER % change: -30.7%) compared to the same period of the previous fiscal year to 255.0 billion JPY.

Net Finance Expenses. Net Finance Expenses were 33.6 billion JPY in the current period, a decrease of 24.5 billion JPY, or 42.2% (CER % change: -35.2%) compared to Net Finance Expenses of 58.0 billion JPY for the same period of the previous fiscal year. Included in the current period are a gain on prior equity method investments related to the acquisitions of GammaDelta Therapeutics and Adaptate Biotherapeutics in April 2022 as well as a derivative gain on the warrant to purchase stocks of a company that went public in May 2022 recorded in the current period.

Share of Loss of Investments Accounted for Using the Equity Method. Share of Loss of Investments Accounted for Using the Equity Method was 1.4 billion JPY, a decrease of 2.2 billion JPY, or 61.3% (CER % change: -76.7%), compared to the same period of the previous fiscal year.

Income Tax Expenses. Income Tax Expenses were 53.3 billion JPY, a decrease of 47.4 billion JPY, or 47.1% (CER % change; -44.1%), compared to the same period of the previous year. This decrease was primarily due to a tax charge of 63.7 billion JPY for tax and interest, net of 0.5 billion JPY of associated tax benefit, arising from tax assessment involving Irish taxation of the break fee Shire received from AbbVie in connection with the terminated offer to acquire Shire made by AbbVie in 2014 in the same period of the previous year as well as tax benefits from recognition of deferred tax assets in the current period. These decreases were partially offset by the tax benefits from internal entity restructuring transactions in the same period of the previous year and tax charges from legal entity restructuring in the current period.

Net Profit for the Period. Net Profit for the Period decreased by 17.0 billion JPY, or 9.2% (CER % change: -21.1%), compared to the same period of the previous fiscal year to 166.8 billion JPY.

Core Results (April 1 to September 30, 2022)

Definition of Core financial measures and Constant Exchange Rate change

Core Revenue represents revenue adjusted to exclude significant items unrelated to Takeda's core operations.

Core Operating Profit represents net profit adjusted to exclude income tax expenses, the share of profit or loss of investments accounted for using the equity method, finance expenses and income, other operating expenses and income, amortization and impairment losses on acquired intangible assets and other items unrelated to Takeda's core operations, such as non-recurring items, purchase accounting effects and transaction related costs.

Core EPS represents net profit adjusted to exclude the impact of items excluded in the calculation of Core Operating Profit, and other non-operating items (e.g. amongst other items, fair value adjustments and the imputed financial charge related to contingent consideration) that are unusual, non-recurring in nature or unrelated to Takeda's ongoing operations and the tax effect of each of the adjustments, divided by the average outstanding shares (excluding treasury shares) of the reporting periods presented.

CER (Constant Exchange Rate) change eliminates the effect of foreign exchange rates from year-over-year comparisons by translating Reported or Core results for the current period using corresponding exchange rates in the same period of the previous fiscal year.

Results of Core Operations

Billion JPY or percentage

	FY2021 H1	FY2022 H1	Change versus the same period of the previous fiscal year		
				Actual % change	CER % change
Core Revenue	1,661.4	1,974.8	313.4	18.9 %	5.5 %
Core Operating Profit	485.7	625.2	139.4	28.7 %	14.5 %
Core EPS (yen)	214	288	74	34.6 %	15.8 %

Core Revenue for the six-month period ended September 30, 2022 was 1,974.8 billion JPY, an increase of 313.4 billion JPY, or 18.9% (CER % change: 5.5%), compared to the same period of the previous fiscal year. Core revenue for the six-month period ended September 30, 2021, was 1,661.4 billion JPY, which excluded the non-recurring 133.0 billion JPY selling price of the diabetes portfolio in Japan. There were no significant items unrelated to Takeda's core operations excluded from revenue in the current period, resulting in Core revenue for the current period being the same as Reported revenue at 1,974.8 billion JPY. Business momentum was led by Takeda's Growth and Launch Products* which totaled 759.8 billion JPY, a year-on-year increase of 205.3 billion JPY, or 37.0% (CER % change: 19.2%).

* Takeda's Growth and Launch Products
GI: ENTYVIO, ALOFISEL
Rare Diseases: TAKHZYRO, LIVTENCITY
PDT Immunology: Immunoglobulin products including GAMMAGARD LIQUID/KIOVIG, HYQVIA, and CUVITRU, Albumin products including HUMAN ALBUMIN and FLEXBUMIN
Oncology: ALUNBRIG, EXKIVITY
Other: SPIKEVAX Intramuscular Injection, NUVAXOVID Intramuscular Injection

Core Operating Profit for the current period was 625.2 billion JPY, an increase of 139.4 billion JPY or 28.7% (CER % change: 14.5%) compared to the same period of the previous fiscal year driven by revenue growth in our core therapeutic areas and the depreciation of the yen in the current period.

Core EPS for the current period was 288 yen, an increase of 74 yen, or 34.6% (CER % change: 15.8%), compared to the same period of the previous fiscal year.

Consolidated Financial Position

Assets. Total Assets as of September 30, 2022 were 14,588.8 billion JPY, reflecting an increase of 1,410.8 billion JPY compared to the previous fiscal year-end. Goodwill, Intangible Assets, and Property, Plant and Equipment increased by 586.9 billion JPY, 368.5 billion JPY, and 177.5 billion JPY respectively mainly due to the effect of foreign currency translation. In addition, Inventories increased by 100.3 billion JPY.

Liabilities. Total Liabilities as of September 30, 2022 were 7,875.4 billion JPY, reflecting an increase of 380.9 billion JPY compared to the previous fiscal year-end. Bonds and Loans increased by 391.2 billion JPY to 4,736.6 billion JPY* primarily due to the effect of foreign currency translation and Provisions increased by 56.1 billion JPY. These increases were partially offset by a decrease in Trade and Other Payables of 127.7 billion JPY.

* The carrying amount of Bonds was 3,996.3 billion JPY and Loans was 740.3 billion JPY as of September 30, 2022. Breakdown of Bonds and Loans carrying amount is as follows.

Bonds:

Name of Bond (Face Value if Denominated in Foreign Currency)	Issuance	Maturity	Carrying Amount (Billion JPY)
Unsecured US dollar denominated senior notes (1,301 million USD)	June 2015	June 2025 ~ June 2045	188.1
Unsecured US dollar denominated senior notes (4,000 million USD)	September 2016	September 2023 ~ September 2026	553.5
Unsecured Euro denominated senior notes (3,750 million EUR)	November 2018	November 2022 ~ November 2030	529.6
Unsecured US dollar denominated senior notes (3,250 million USD)	November 2018	November 2023 ~ November 2028	466.9
Hybrid bonds (subordinated bonds)	June 2019	June 2079	498.5
Unsecured US dollar denominated senior notes (7,000 million USD)	July 2020	March 2030 ~ July 2060	1,003.0
Unsecured Euro denominated senior notes (3,600 million EUR)	July 2020	July 2027 ~ July 2040	507.3
Unsecured JPY denominated senior bonds	October 2021	October 2031	249.4
Total			3,996.3

Loans:

Name of Loan (Face Value if Denominated in Foreign Currency)	Execution	Maturity	Carrying Amount (Billion JPY)
Syndicated loans	April 2016	April 2023 ~ April 2026	200.0
Syndicated loans	April 2017	April 2027	113.5
Syndicated loans (1,500 million USD)	April 2017	April 2027	216.1
Bilateral loans	March 2016 ~ April 2017	March 2023 ~ March 2026	210.0
Other			0.7
Total			740.3

On April 23, 2022, Takeda redeemed 219 million USD of unsecured U.S. dollar-denominated senior notes issued in June 2015 in advance of their original maturity date of June 23, 2022.

Equity. Total Equity as of September 30, 2022 was 6,713.5 billion JPY, an increase of 1,030.0 billion JPY compared to the previous fiscal year-end. This was primarily resulted from an increase of 977.0 billion JPY in Other Components of Equity mainly due to fluctuation in currency translation adjustments reflecting the depreciation of yen and an increase in Retained Earnings of 50.5 billion JPY. The increase in Retained Earnings was primarily attributable to Net Profit for the Period partially offset by the dividends payments of 138.2 billion JPY.

Consolidated Cash Flows

	Billion JPY	
	FY2021 H1	**FY2022 H1**
Net cash from (used in) operating activities	400.0	305.2
Net cash from (used in) investing activities	(103.3)	(121.9)
Net cash from (used in) financing activities	(658.4)	(267.6)
Net increase (decrease) in cash and cash equivalents	(361.7)	(84.3)
Cash and cash equivalents at the beginning of the year	966.2	849.7
Effects of exchange rate changes on cash and cash equivalents	3.4	32.7
Cash and cash equivalents at the end of the period	607.9	798.1

Net cash from operating activities was 305.2 billion JPY for the current period compared to 400.0 billion JPY for the same period of the previous year. The decrease of 94.8 billion JPY was primarily driven by a decrease in trade and other payables. This unfavorable impact was partially offset by higher net profit for the period adjusted for non-cash items and other adjustments reflecting sales increases in core therapeutic areas and favorable foreign exchange rates largely offset by the decrease of cash from the sale of Japan diabetes portfolio in the same period of prior fiscal year.

Net cash used in investing activities was 121.9 billion JPY for the current period compared to 103.3 billion JPY for the same period of the previous year. This increase of 18.6 billion JPY was mainly due to an increase of 42.4 billion JPY in acquisition of intangible assets and an increase of 10.8 billion JPY in acquisition of property, plant and equipment, partially offset by a decrease of 27.5 billion JPY in acquisition of business (net of cash and cash equivalents acquired).

Net cash used in financing activities was 267.6 billion JPY for the current period compared to 658.4 billion JPY for the same period of the previous year. The decrease of 390.8 billion JPY was mainly due to a decrease in repayments of bonds and long-term loans of 414.2 billion JPY, partially offset by an increase in purchase of treasury shares of 24.4 billion JPY resulting from the share buybacks conducted in the current period.

Outlook for the Fiscal Year Ending March 31, 2023

Based on Takeda's financial results through the six-month period ended September 30, 2022, and primarily reflecting expected favorable foreign exchange rates during the remaining six-month period of the fiscal year ending March 31, 2023 (FY2022), the full year consolidated reported forecast for FY2022 has been revised from the original forecast announced on May 11, 2022.

Full Year Reported Forecast for the Fiscal Year Ending March 31, 2023 (FY2022)

Billion JPY or percentage

	Original Forecast (May 11, 2022)	Revised Forecast (October 27, 2022)	vs. Original Forecast	
Revenue	3,690.0	3,930.0	240.0	6.5 %
Operating profit	520.0	530.0	10.0	1.9 %
Profit before tax	411.0	426.0	15.0	3.6 %
Net profit for the year (attributable to owners of the Company)	292.0	307.0	15.0	5.1 %
EPS (JPY)	188.13	197.83	9.70	5.2 %
Core Revenue	3,690.0	3,930.0	240.0	6.5 %
Core Operating Profit	1,100.0	1,180.0	80.0	7.3 %
Core EPS (JPY)	484	525	41	8.4 %

Major assumptions used in preparing the FY2022 Reported Forecast

Billion JPY or percentage

	Original Forecast (May 11, 2022)	Revised Forecast (October 27, 2022)
FX rates	1 USD = 119 JPY 1 Euro = 133 JPY 1 RUB = 1.3 JPY 1 BRL = 24.0 JPY 1 CNY = 18.8 JPY	1 USD = 132 JPY 1 Euro = 138 JPY 1 RUB = 2.1 JPY 1 BRL = 26.4 JPY 1 CNY = 19.8 JPY
R&D expenses	(570.0)	(620.0)
Amortization of intangible assets associated with products	(438.0)	(480.0)
Of which Shire acquisition related	(358.0)	(390.0)
Impairment of intangible assets associated with products	(50.0)	(50.0)
Other operating income	12.0	13.0
Other operating expenses	(73.0)	(100.0)
Other Core Operating Profit adjustments	(31.0)	(33.0)
Of which Shire acquisition related to unwind of inventories step-up	(22.0)	(25.0)
Finance income and (expenses), net	(107.0)	(105.0)
Free cash flow	600.0 - 700.0	650.0 - 750.0
Capital expenditures (cash flow base)	(260.0 - 310.0)	(260.0 - 310.0)
Depreciation and amortization (excluding intangible assets associated with products)	(150.0)	(160.0)
Cash tax rate on adjusted EBITDA (excluding divestitures)	Mid-teen %	Mid-teen %

Management Guidance

Beginning from FY2022, Takeda uses growth in its Core financial measures on a Constant Exchange Rate basis (“Core Growth at CER”) to provide its Management Guidance. The full year management guidance for the fiscal year ending March 31, 2023 (FY2022) has not been changed from the management guidance announced at the FY2021 financial results announcement on May 11, 2022.

	FY2022
Core Revenue Growth	Low-single-digit growth
Core Operating Profit Growth	High-single-digit growth
Core EPS Growth	High-single-digit growth

* Please refer to "Financial Appendix" for the definition and reconciliations of Constant Exchange Rate (CER).

Other assumptions used in preparing the FY2022 Reported Forecast and the Management Guidance

- Based on currently available information, Takeda expects that its financial results for FY2022 will not be materially affected by COVID-19 or the crisis in Ukraine and Russia and, accordingly, Takeda's FY2022 reported forecast and the management guidance reflect this expectation.
- The FY2022 reported forecast and the management guidance include approximately 50.0 billion JPY revenue contribution from COVID-19 vaccines.

Forward looking statements

All forecasts in this document are based on information currently available to management, and do not represent a promise or guarantee to achieve these forecasts. Various uncertain factors could cause actual results to differ, such as changes in the business environment and fluctuations in foreign exchange rates. Should any significant event occur which requires the forecast to be revised, the Company will disclose it in a timely manner.

Interim Dividend for Fiscal 2022

Takeda maintains its annual dividend policy of 180 JPY per share.

For the six-month period ended September 30, 2022, Takeda's Board of Directors approved the payment of an interim dividend of 90 JPY per share. The dividend will be paid on December 1, 2022.

Other

Takeda's Initiatives to Mitigate the Impact of COVID-19

Takeda's response to COVID-19 continues to focus on protecting the health and safety of our employees, our ability to ensure our medicines are available to patients who rely on them and playing our part to reduce transmission and support the communities where our employees live and work. While vaccines are becoming more broadly available, we continue to strictly adhere to local public health guidance across our geographies in addition to the internal protocols we have put in place, and monitor any potential impacts of the effects and evolution of COVID-19, including new variants, on our business activities.

Takeda is manufacturing NUVAXOVID Intramuscular Injection, a novel recombinant protein-based COVID-19 vaccine which was licensed, with manufacturing technologies transferred, from Novavax, at its Hikari facility and has been distributing it in Japan since May 2022. Also, Takeda will continue to provide distribution support in bringing an mRNA COVID-19 vaccine, SPIKEVAX Intramuscular Injection, to Japan through its partnership with Moderna.

Takeda’s Operations in Ukraine and Russia

Our commitment to patients, regardless of where they live, and to our people is unwavering and is even more important in times of crisis. Takeda is making every effort to protect our colleagues in Ukraine and to continue to supply patients in Ukraine and in the region with much needed treatments.

Takeda discontinued activities in Russia that are not essential to maintaining the supply of medicines to patients and providing ongoing support to our employees. This includes suspending all new investments, suspending advertising and promotion, not initiating new clinical trials and stopping enrollment of new patients in ongoing clinical trials. Our focus only on essential activities is consistent with our values and ethical responsibility to our patients in Ukraine, Russia and the region who depend on our treatments. This commitment notwithstanding, we are adhering to all international sanctions imposed on Russia.

We will be increasing our humanitarian relief efforts, including monetary and medicine donations to benefit people affected by the conflict in Ukraine, and we will continue to assess new ways to provide support as we look to meet the needs of patients across the region.

In the six-month period ended September 30, 2022, revenue attributable to Russia/CIS represented 1.9% of Takeda’s total consolidated revenue of 1,974.8 billion, as indicated in the Revenue by Region in *Results of Operations (Reported)*. There was no material financial impact on Takeda’s financial results for the current period resulting from the crisis in these countries. However, depending on the future status of the crisis, our results of operations and financial conditions could be adversely affected.

Condensed Interim Consolidated Financial Statements [IFRS]

(1) Condensed Interim Consolidated Statements of Profit or Loss

	JPY (millions, except per share data)		USD (millions)(*)
	Six-month Period Ended September 30,		Six-month Period Ended September 30,
	2021	2022	2022
Revenue	¥ 1,794,423	¥ 1,974,771	$ 13,646
Cost of sales	(517,061)	(598,327)	(4,135)
Selling, general and administrative expenses	(431,854)	(480,214)	(3,318)
Research and development expenses	(254,081)	(297,752)	(2,058)
Amortization and impairment losses on intangible assets associated with products	(205,545)	(273,643)	(1,891)
Other operating income	19,535	13,476	93
Other operating expenses	(59,438)	(83,359)	(576)
Operating profit	345,979	254,953	1,762
Finance income	46,912	75,707	523
Finance expenses	(104,940)	(109,272)	(755)
Share of loss of investments accounted for using the equity method	(3,525)	(1,366)	(9)
Profit before tax	284,425	220,022	1,520
Income tax expenses	(100,704)	(53,269)	(368)
Net profit for the period	183,721	166,753	1,152
Attributable to:			
Owners of the Company	183,648	166,756	1,152
Non-controlling interests	73	(3)	(0)
Net profit for the period	183,721	166,753	1,152
Earnings per share (JPY)			
Basic earnings per share	117.08	107.62	0.74
Diluted earnings per share	116.40	106.88	0.74

(*) Condensed interim consolidated statements of profit or loss have been translated solely for the convenience of the reader at an exchange rate of 1USD = 144.71 JPY, the Noon Buying Rate certified by the Federal Reserve Bank of New York on September 30, 2022. The rate and methodologies used for the convenience translations differ from the currency exchange rates and translation methodologies under IFRS used for the preparation of the condensed interim consolidated financial statements. The translation should not be construed as a representation that the Japanese yen amounts could be converted into U.S. dollars at the above or any other rate.

(2) Condensed Interim Consolidated Statements of Comprehensive Income

	JPY (millions)		USD (millions)(*)
	Six-month Period Ended September 30,		Six-month Period Ended September 30,
	2021	2022	2022
Net profit for the period	¥ 183,721	¥ 166,753	$ 1,152
Other comprehensive income (loss)			
Items that will not be reclassified to profit or loss:			
Changes in fair value of financial assets measured at fair value through other comprehensive income	4,269	5,284	37
Remeasurement of defined benefit pension plans	(1,702)	13,395	93
	2,568	18,679	129
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translation of foreign operations	66,700	1,035,192	7,154
Cash flow hedges	11,553	(33,200)	(229)
Hedging cost	5,785	(22,749)	(157)
Share of other comprehensive loss of investments accounted for using the equity method	(37)	(1,085)	(8)
	84,000	978,158	6,759
Other comprehensive income for the period, net of tax	86,568	996,837	6,889
Total comprehensive income for the period	270,288	1,163,590	8,041
Attributable to:			
Owners of the Company	270,198	1,163,535	8,040
Non-controlling interests	90	55	0
Total comprehensive income for the period	270,288	1,163,590	8,041

(*) Condensed interim consolidated statements of comprehensive income have been translated solely for the convenience of the reader at an exchange rate of 1USD = 144.71 JPY, the Noon Buying Rate certified by the Federal Reserve Bank of New York on September 30, 2022. The rate and methodologies used for the convenience translations differ from the currency exchange rates and translation methodologies under IFRS used for the preparation of the condensed interim consolidated financial statements. The translation should not be construed as a representation that the Japanese yen amounts could be converted into U.S. dollars at the above or any other rate.

(3) Condensed Interim Consolidated Statements of Financial Position

	JPY (millions)		USD (millions)(*)
	As of March 31, 2022	As of September 30, 2022	As of September 30, 2022
ASSETS			
Non-current assets:			
Property, plant and equipment	¥ 1,582,800	¥ 1,760,327	$ 12,165
Goodwill	4,407,749	4,994,632	34,515
Intangible assets	3,818,544	4,187,055	28,934
Investments accounted for using the equity method	96,579	96,872	669
Other financial assets	233,554	328,894	2,273
Other non-current assets	82,611	80,699	558
Deferred tax assets	362,539	394,752	2,728
Total non-current assets	10,584,376	11,843,231	81,841
Current assets:			
Inventories	853,167	953,450	6,589
Trade and other receivables	696,644	759,894	5,251
Other financial assets	25,305	31,932	221
Income taxes receivable	27,733	40,642	281
Other current assets	141,099	155,636	1,076
Cash and cash equivalents	849,695	798,137	5,515
Assets held for sale	—	5,925	41
Total current assets	2,593,642	2,745,616	18,973
Total assets	13,178,018	14,588,847	100,814
LIABILITIES AND EQUITY			
LIABILITIES			
Non-current liabilities:			
Bonds and loans	4,141,418	4,168,417	28,805
Other financial liabilities	468,943	548,344	3,789
Net defined benefit liabilities	145,847	136,318	942
Income taxes payable	21,634	27,483	190
Provisions	52,199	67,028	463
Other non-current liabilities	67,214	70,302	486
Deferred tax liabilities	451,511	465,746	3,218
Total non-current liabilities	5,348,764	5,483,638	37,894
Current liabilities:			
Bonds and loans	203,993	568,228	3,927
Trade and other payables	516,297	388,616	2,685
Other financial liabilities	196,071	113,079	781
Income taxes payable	200,918	189,568	1,310
Provisions	443,502	484,742	3,350
Other current liabilities	584,949	646,698	4,469
Liabilities held for sale	—	788	5
Total current liabilities	2,145,730	2,391,720	16,528
Total liabilities	7,494,495	7,875,358	54,422

	JPY (millions)		USD (millions)(*)
	As of March 31, 2022	As of September 30, 2022	As of September 30, 2022
EQUITY			
Share capital	1,676,263	1,676,330	11,584
Share premium	1,708,873	1,695,544	11,717
Treasury shares	(116,007)	(100,313)	(693)
Retained earnings	1,479,716	1,530,200	10,574
Other components of equity	934,173	1,911,167	13,207
Equity attributable to owners of the company	5,683,019	6,712,929	46,389
Non-controlling interests	504	560	4
Total equity	5,683,523	6,713,489	46,393
Total liabilities and equity	13,178,018	14,588,847	100,814

(*) Condensed interim consolidated statements of financial position have been translated solely for the convenience of the reader at an exchange rate of 1USD = 144.71 JPY, the Noon Buying Rate certified by the Federal Reserve Bank of New York on September 30, 2022. The rate and methodologies used for the convenience translations differ from the currency exchange rates and translation methodologies under IFRS used for the preparation of the condensed interim consolidated financial statements. The translation should not be construed as a representation that the Japanese yen amounts could be converted into U.S. dollars at the above or any other rate.

(4) Condensed Interim Consolidated Statements of Changes in Equity

Six-month period ended September 30, 2021 (From April 1 to September 30, 2021)

	JPY (millions)					
	Equity attributable to owners of the company					
					Other components of equity	
	Share capital	Share premium	Treasury shares	Retained earnings	Exchange differences on translation of foreign operations	Changes in fair value of financial assets measured at fair value through other comprehensive income
As of April 1, 2021	1,668,145	1,688,424	(59,552)	1,509,906	400,798	41,983
Net profit for the period				183,648		
Other comprehensive income (loss)					66,578	4,337
Comprehensive income (loss) for the period	—	—	—	183,648	66,578	4,337
Transactions with owners:						
Issuance of new shares	8,118	14,036				
Acquisition of treasury shares			(4,468)			
Disposal of treasury shares		(0)	1			
Dividends				(141,859)		
Changes in ownership				(2,143)		
Transfers from other components of equity				1,599		(3,301)
Share-based compensation		20,972				
Exercise of share-based awards		(36,938)	22,982			
Total transactions with owners	8,118	(1,931)	18,515	(142,404)	—	(3,301)
As of September 30, 2021	1,676,263	1,686,493	(41,037)	1,551,150	467,376	43,019

	Equity attributable to owners of the company						
	Other components of equity						
	Cash flow hedges	Hedging cost	Remeasurements of defined benefit pension plans	Total other components of equity	Total equity attributable to owners of the Company	Non-controlling interests	Total equity
As of April 1, 2021	(68,075)	(8,592)	—	366,114	5,173,037	4,140	5,177,177
Net profit for the period				—	183,648	73	183,721
Other comprehensive income (loss)	11,553	5,785	(1,702)	86,551	86,551	17	86,568
Comprehensive income (loss) for the period	11,553	5,785	(1,702)	86,551	270,198	90	270,288
Transactions with owners:							
Issuance of new shares				—	22,154		22,154
Acquisition of treasury shares				—	(4,468)		(4,468)
Disposal of treasury shares				—	1		1
Dividends				—	(141,859)		(141,859)
Changes in ownership				—	(2,143)	(3,804)	(5,948)
Transfers from other components of equity			1,702	(1,599)	—		—
Share-based compensation				—	20,972		20,972
Exercise of share-based awards				—	(13,956)		(13,956)
Total transactions with owners	—	—	1,702	(1,599)	(119,300)	(3,804)	(123,104)
As of September 30, 2021	(56,522)	(2,807)	—	451,066	5,323,935	426	5,324,361

Six-month period ended September 30, 2022 (From April 1 to September 30, 2022)

	JPY (millions)					
	Equity attributable to owners of the company					
					Other components of equity	
	Share capital	Share premium	Treasury shares	Retained earnings	Exchange differences on translation of foreign operations	Changes in fair value of financial assets measured at fair value through other comprehensive income
As of April 1, 2022	1,676,263	1,708,873	(116,007)	1,479,716	984,141	22,068
Effect of hyperinflation				(1,960)	4,121	
Restated opening balance	1,676,263	1,708,873	(116,007)	1,477,756	988,263	22,068
Net profit for the period				166,756		
Other comprehensive income (loss)					1,034,071	5,262
Comprehensive income (loss) for the period	—	—	—	166,756	1,034,071	5,262
Transactions with owners:						
Issuance of new shares	67	67				
Acquisition of treasury shares		(5)	(27,051)			
Disposal of treasury shares		0	0			
Dividends				(138,217)		
Transfers from other components of equity				23,906		(10,510)
Share-based compensation		29,335				
Exercise of share-based awards		(42,725)	42,745			
Total transactions with owners	67	(13,329)	15,694	(114,311)	—	(10,510)
As of September 30, 2022	1,676,330	1,695,544	(100,313)	1,530,200	2,022,333	16,819

	Equity attributable to owners of the company						
	Other components of equity						
	Cash flow hedges	Hedging cost	Remeasurements of defined benefit pension plans	Total other components of equity	Total equity attributable to owners of the Company	Non-controlling interests	Total equity
As of April 1, 2022	(65,901)	(6,135)	—	934,173	5,683,019	504	5,683,523
Effect of hyperinflation				4,121	2,161		2,161
Restated opening balance	(65,901)	(6,135)	—	938,294	5,685,180	504	5,685,684
Net profit for the period				—	166,756	(3)	166,753
Other comprehensive income (loss)	(33,200)	(22,749)	13,395	996,779	996,779	58	996,837
Comprehensive income (loss) for the period	(33,200)	(22,749)	13,395	996,779	1,163,535	55	1,163,590
Transactions with owners:							
Issuance of new shares				—	133		133
Acquisition of treasury shares				—	(27,057)		(27,057)
Disposal of treasury shares				—	1		1
Dividends				—	(138,217)		(138,217)
Transfers from other components of equity			(13,395)	(23,906)	—		—
Share-based compensation				—	29,335		29,335
Exercise of share-based awards				—	19		19
Total transactions with owners	—	—	(13,395)	(23,906)	(135,786)	—	(135,786)
As of September 30, 2022	(99,101)	(28,884)	—	1,911,167	6,712,929	560	6,713,489

(5) Condensed Interim Consolidated Statements of Cash Flows

	JPY (millions)		USD (millions)(*)
	Six-month Period Ended September 30,		Six-month Period Ended September 30,
	2021	2022	2022
Cash flows from operating activities:			
Net profit for the period	¥ 183,721	¥ 166,753	$ 1,152
Depreciation and amortization	283,595	326,110	2,254
Impairment losses	1,489	35,950	248
Equity-settled share-based compensation	20,972	29,335	203
Loss on sales and disposal of property, plant and equipment	219	145	1
Gain on divestment of business and subsidiaries	(730)	(640)	(4)
Change in fair value of financial assets and liabilities associated with contingent consideration arrangements, net	(8,099)	446	3
Finance (income) and expenses, net	58,028	33,565	232
Share of loss of investments accounted for using the equity method	3,525	1,366	9
Income tax expenses	100,704	53,269	368
Changes in assets and liabilities:			
Increase in trade and other receivables	(55,190)	(5,915)	(41)
Increase in inventories	(24,965)	(15,778)	(109)
Decrease in trade and other payables	(9,043)	(137,260)	(949)
Decrease in provisions	(63,512)	(12,939)	(89)
Increase (decrease) in other financial liabilities	1,023	(48,068)	(332)
Other, net	(17,856)	(11,887)	(82)
Cash generated from operations	473,883	414,451	2,864
Income taxes paid	(78,707)	(115,432)	(798)
Tax refunds and interest on tax refunds received	4,835	6,215	43
Net cash from operating activities	400,011	305,234	2,109
Cash flows from investing activities:			
Interest received	2,126	1,456	10
Dividends received	142	2,415	17
Acquisition of property, plant and equipment	(60,601)	(71,423)	(494)
Proceeds from sales of property, plant and equipment	389	97	1
Acquisition of intangible assets	(25,182)	(67,562)	(467)
Acquisition of investments	(3,591)	(4,694)	(32)
Proceeds from sales and redemption of investments	10,070	18,400	127
Acquisition of businesses, net of cash and cash equivalents acquired	(27,549)	—	—
Proceeds from sales of business, net of cash and cash equivalents divested	2,138	—	—
Other, net	(1,292)	(609)	(4)
Net cash used in investing activities	(103,349)	(121,920)	(843)

	JPY (millions)		USD (millions)(*)
	Six-month Period Ended September 30,		Six-month Period Ended September 30,
	2021	2022	2022
Cash flows from financing activities:			
Net decrease in short-term loans and commercial papers	(1)	—	—
Repayments of bonds and long-term loans	(441,072)	(26,900)	(186)
Acquisition of treasury shares	(2,542)	(26,929)	(186)
Interest paid	(52,668)	(52,719)	(364)
Dividends paid	(141,573)	(140,007)	(968)
Repayments of lease liabilities	(20,536)	(20,996)	(145)
Other, net	(13)	(42)	(0)
Net cash used in financing activities	(658,405)	(267,593)	(1,849)
Net decrease in cash and cash equivalents	(361,743)	(84,278)	(582)
Cash and cash equivalents at the beginning of the year	966,222	849,695	5,872
Effects of exchange rate changes on cash and cash equivalents	3,402	32,720	226
Cash and cash equivalents at the end of the period	607,881	798,137	5,515

(*) Condensed interim consolidated statements of cash flows have been translated solely for the convenience of the reader at an exchange rate of 1USD = 144.71 JPY, the Noon Buying Rate certified by the Federal Reserve Bank of New York on September 30, 2022. The rate and methodologies used for the convenience translations differ from the currency exchange rates and translation methodologies under IFRS used for the preparation of the condensed interim consolidated financial statements. The translation should not be construed as a representation that the Japanese yen amounts could be converted into U.S. dollars at the above or any other rate.

(6) Other Information

(Significant Subsequent Events)

On October 27, 2022 (U.S. time), Takeda will redeem 1,000 million USD in unsecured U.S. dollar-denominated senior notes issued in November 2018 in advance of their original maturity date of November 26, 2023. The impact from the accelerated debt prepayment on the consolidated statements of profit or loss will not be material.

Supplementary Information

1. Pipeline

I. Clinical Development Activities

- The following table lists the pipeline assets that we are clinically developing as of October 27, 2022. The assets in our pipeline are in various stages of development, and the contents of the pipeline may change as therapeutic candidates currently under development drop out and new therapeutic candidates are introduced. Whether the therapeutic candidates listed below are ever successfully released as products depends on various factors, including the results of pre-clinical and clinical trials, market conditions for various drugs and regulatory approvals.
- This table primarily shows the indications for which we are actively pursuing regulatory approval and those regulatory approvals granted during fiscal year 2022. 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 U.S., EU and Japan and China, but we are also actively conducting development activities in other regions, including in Emerging Markets. Country/region column denotes where a pivotal clinical study is ongoing or a filing has been made with our specific intention to pursue approval in any of the U.S., EU, Japan or China. 'Global' refers to U.S., EU, Japan and China.
- Brand name and country/region indicate the brand name and country in which the specific asset has already been approved for any indication in any of the U.S., EU, Japan or China and Takeda has commercialization rights for such asset.
- Stage-ups are recognized in the table upon achievement of First Subject In.
- Modality of our pipeline assets in the following table is classified into either of the following categories: ‘small molecule’, ‘peptide/oligonucleotide’, ‘cell and gene therapy’ or ‘biologic and other.’

Oncology Pipeline

Development code <generic name> Brand name (country/region)	Type of Drug (administration route)	Modality	Indications / additional formulations	Country/ Region	Stage
TAK-788 <mobocertinib> *EXKIVITY* (U.S.)	EGFR/HER2 exon 20 inhibitor (oral)	Small molecule	Previously treated Non-Small Cell Lung Cancer with EGFR exon 20 insertion[1]	China EU[2] Japan	Filed (Jul 2021) Filing withdrawn (Jul 2022) P-III
			Treatment Naïve Non-Small Cell Lung Cancer with EGFR exon 20 insertion	Global	P-III
MLN9708 <ixazomib> *NINLARO* (Global)	Proteasome inhibitor (oral)	Small molecule	Maintenance therapy in patients with newly diagnosed Multiple Myeloma not treated with stem cell transplant	U.S. EU China	P-III P-III P-III
			Maintenance therapy in patients with newly diagnosed Multiple Myeloma following autologous stem cell transplant	U.S. EU	P-III P-III
<cabozantinib>[3] *CABOMETYX* (Japan)	Multi-targeted kinase inhibitor (oral)	Small molecule	2L metastatic Non-Small Cell Lung Cancer in combination with atezolizumab[4]	Japan	P-III
			Metastatic Castration-Resistant Prostate Cancer in combination with atezolizumab[5]	Japan	P-III
<ponatinib> *ICLUSIG* (U.S.)	BCR-ABL inhibitor (oral)	Small molecule	Front line Philadelphia chromosome-positive Acute Lymphoblastic Leukemia	U.S.	P-III
			Pediatric indication for Philadelphia chromosome-positive Acute Lymphoblastic Leukemia	-	P-I
TAK-385 <relugolix>	LH-RH antagonist (oral)	Small molecule	Prostate cancer	Japan China	P-III P-III
<niraparib>[6] *ZEJULA* (Japan)	PARP 1/2 inhibitor (oral)	Small molecule	Breast cancer	Japan	P-III

TAK-981 <subasumstat>	SUMO inhibitor (injection)	Small molecule	Multiple cancers	-	P-II
TAK-573[7] <modakafusp alfa>	Anti-CD38-targeted IgG4 genetically fused with an attenuated IFNα (injection)	Biologic and other	Relapsed/refractory Multiple Myeloma	-	P-II
			Solid tumors	-	P-I
TAK-007[8]	CD19 CAR-NK (injection)	Cell and gene therapy	Relapsed/refractory B cell malignancies	-	P-II
TAK-102[9]	GPC3 CAR-T (injection)	Cell and gene therapy	Solid tumors	-	P-I
TAK-103[9]	Mesothelin CAR-T (injection)	Cell and gene therapy	Solid tumors	-	P-I
TAK-676	STING agonist (injection)	Small molecule	Solid tumors	-	P-I
TAK-500	STING agonist antibody drug conjugate (injection)	Biologic and other	Solid tumors	-	P-I
TAK-940[10]	CD19 1XX CAR-T (injection)	Cell and gene therapy	Relapsed/refractory B cell malignancies	-	P-I
TAK-186[11]	T Cell Engager (Injection)	Biologic and other	EGFR expressing solid tumors	-	P-I
TAK-280[11]	T Cell Engager (Injection)	Biologic and other	B7-H3 expressing solid tumors	-	P-I

1. The U.S. FDA review is being conducted under Project Orbis, an initiative of the FDA Oncology Center of Excellence (OCE), which provides a framework for concurrent submission and review of oncology products among international partners. Currently, approval was granted in the U.K. (May 2022), the Switzerland (Jun 2022), Australia (Jul 2022) and South Korea (Jul 2022).
2. Following discussions with the EMA, Takeda decided to withdraw the marketing authorization application (MAA).
3. Partnership with Exelixis, Inc.
4. Partnership with Chugai Pharmaceutical. Chugai operates P-III development
5. Partnership with Chugai Pharmaceutical. Takeda operates P-III development
6. Partnership with GSK
7. Partnership with Teva Pharmaceutical Industries Ltd.
8. Partnership with The University of Texas MD Anderson Cancer Center
9. Partnership with Noile-Immune Biotech, Inc.
10. Partnership with Memorial Sloan Kettering Cancer Center
11. Acquired via acquisition of Maverick Therapeutics, Inc.

Additions since FY2022 Q1: None
Removals since FY2022 Q1: None

Rare Genetics and Hematology Pipeline

Development code <generic name> Brand name (country/region)	Type of Drug (administration route)	Modality	Indications / additional formulations	Country/ Region	Stage
TAK-620[1] <maribavir> *LIVTENCITY* (U.S.)	Benzimidazole riboside inhibitor (oral)	Small molecule	Post-transplant cytomegalovirus (CMV) infection/ disease resistant/refractory to (val) ganciclovir, cidofovir or foscarnet	EU	Filed (Jun 2021)
			HSCT Recipients with First CMV Infection	U.S. EU	P-III P-III
			Treatment of CMV Infection/disease Post Transplantation (Including HSCT)	Japan	P-III
TAK-672[2] *OBIZUR* (U.S., EU)	Porcine Coagulation Factor VIII (Recombinant) (injection)	Biologic and other	Acquired hemophilia A (AHA)	China Japan	Filed (Jun 2022) P-II/III
TAK-743 <lanadelumab> *TAKHZYRO* (Global)	Plasma kallikrein inhibitor (injection)	Biologic and other	Pediatric Hereditary Angioedema	U.S. EU	Filed (Oct 2022)* P-III
			Bradykinin-Mediated Angioedema	Global	P-III
TAK-577 *VONVENDI* (U.S., Japan) *VEYVONDI* (EU)	von Willebrand factor [recombinant] (injection)	Biologic and other	Adult prophylactic treatment of von Willebrand disease	EU China	P-III P-III
			Pediatric on-demand and surgery treatment of von Willebrand disease	Global	P-III
TAK-660 *ADYNOVATE* (U.S., Japan) *ADYNOVI* (EU)	Antihemophilic factor [recombinant], PEGylated (injection)	Biologic and other	Pediatric Hemophilia A	EU	P-III
TAK-755[3]	Replacement of the deficient-ADAMTS13 enzyme (injection)	Biologic and other	Congenital Thrombotic Thrombocytopenic Purpura	Global	P-III
			Immune Thrombotic Thrombocytopenic Purpura	U.S. EU	P-II P-II
			Sickle cell disease	U.S.	P-I
TAK-141/JR-141[4] <pabinafusp alfa>	Recombinant fusion protein of an antibody against the human transferrin receptor and iduronate-2-sulfatase (injection)	Biologic	Hunter syndrome (CNS and somatic symptoms)	EU	P-III

TAK-611	Recombinant human arylsulfatase A for intrathecal administration (injection)	Biologic and other	Metachromatic leukodystrophy	-	P-II
TAK-079[5] <mezagitamab>	Anti-CD38 monoclonal antibody (injection)	Biologic and other	Myasthenia gravis	-	P-II
			Immune thrombocytopenic purpura	-	P-II
			Systemic lupus erythematosus	-	P-I/II

1. Partnership with GlaxoSmithKline
2. Partnership with Ipsen
3. Partnership with KM Biologics.
4. Geographically-focused collaboration and license agreement with JCR Pharma. Takeda will exclusively commercialize TAK-141/JR-141 outside of the United States, including Canada, Europe, and other regions (excluding Japan and certain other Asia-Pacific countries). Takeda receives an option under a separate option agreement, which allows Takeda to acquire an exclusive license to commercialize TAK-141/JR-141 in the U.S. upon completion of the P-III program.
5. Relapsed/refractory Multiple Myeloma will continue until trial completion.

* Event occurred after the end of the Q2 reporting period: Update after October 1, 2022

Additions since FY2022 Q1: None
Removals since FY2022 Q1: TAK-834 for Hypoparathyroidism (P-I study in Japan completed; Japan development will be discontinued along with the discontinuation of manufacturing NATPAR/NATPARA globally.)

Neuroscience Pipeline

Development code <generic name> Brand name (country/region)	**Type of Drug (administration route)**	**Modality**	**Indications / additional formulations**	**Country/ Region**	**Stage**
TAK-935 <soticlestat>	CH24H inhibitor (oral)	Small molecule	Dravet syndrome	Global	P-III
			Lennox-Gastaut syndrome	Global	P-III
TAK-071	M1 positive allosteric modulator (M1PAM) (oral)	Small molecule	Parkinson’s disease	-	P-II
TAK-041[1]	GPR139 agonist (oral)	Small molecule	Anhedonia in major depressive disorder (MDD)	-	P-II
TAK-653[1]	AMPA receptor potentiator (oral)	Small molecule	Inadequate response to treatment in major depressive disorder (MDD)	-	P-II
TAK-594/DNL593[2]	Brain-penetrant progranulin fusion protein (injection)	Biologic and other	Frontotemporal dementia	-	P-I/II
TAK-341/MEDI1341[3]	Alpha-synuclein antibody (injection)	Biologic and other	Parkinson’s disease	-	P-I
TAK-861	Orexin 2R agonist (oral)	Small molecule	Sleep disorders, other disorders	-	P-I

TAK-925	Orexin 2R agonist (injection)	Small molecule	Post-anesthesia recovery, narcolepsy	-	P-I
TAK-920/DNL919[2]	Brain-penetrant TREM2 agonist monoclonal antibody (injection)	Biologic and other	Alzheimer's disease	-	P-I

1. Partnership with Neurocrine Biosciences. Neurocrine leads development
2. Partnership with Denali Therapeutics. Denali leads P-I development
3. Partnership with AstraZeneca. AstraZeneca leads P-I development

Additions since FY2022 Q1: TAK-920/DNL919 for Alzheimer's disease (P-I)
Removals since FY2022 Q1: None

GI Pipeline

Development code <generic name> Brand name (country/region)	**Type of Drug (administration route)**	**Modality**	**Indications / additional formulations**	**Country/ Region**	**Stage**
MLN0002 <vedolizumab> *ENTYVIO* (Global)	Humanized monoclonal antibody against α4β7 integrin (injection)	Biologic and other	Subcutaneous formulation for ulcerative colitis	U.S. Japan	Complete Response Letter (CRL) received (Dec 2019)[6] Filed (Aug 2019)
			Subcutaneous formulation for Crohn's disease	U.S. Japan	P-III P-III
			Graft-versus-Host Disease prophylaxis in patients undergoing allogeneic hematopoietic stem cell transplantation	EU Japan	P-III P-III
			Pediatrics Study (ulcerative colitis, Crohn's disease)	Global	P-III
TAK-438 <vonoprazan> *TAKECAB* (Japan) *VOCINTI* (China)	Potassium-competitive acid blocker (oral)	Small molecule	Acid related diseases (adjunct to *Helicobacter pylori* eradication)	China	Filed (Aug 2022)
Cx601 <darvadstrocel> *ALOFISEL* (EU, Japan)	A suspension of allogeneic expanded adipose-derived stem cells (injection)	Biologic and other	Refractory complex perianal fistulas in patients with Crohn's disease	U.S.	P-III
			Pediatric indication for refractory complex perianal fistulas in patients with Crohn's disease	EU Japan	P-III P-III
TAK-227/ZED1227[1]	Transglutaminase 2 inhibitor (oral)	Small molecule	Celiac disease	-	P-II (b)[*]
TAK-954[2]	5-HT_4 - hydroxytryptamine receptor agonist (injection)	Small molecule	Post-operative gastrointestinal dysfunction	-	P-II (b)
TAK-999[3] <fazirsiran>	GalNAc based RNA interference (RNAi) (injection)	Peptide/ Oligo-nucleotide	Alpha-1 antitrypsin-deficiency associated liver disease	U.S. EU	P-II (b) P-II (b)
TAK-018/EB8018[4] <sibofimloc>	FimH antagonist (oral)	Small molecule	Crohn's disease (post-operative and ileal-dominant)	-	P-II (a)
TAK-101[5]	Tolerizing Immune Modifying nanoParticle (TIMP) (injection)	Biologic and other	Celiac disease	-	P-II

TAK-951	Peptide agonist (sub-cutaneous)	Peptide/ Oligo-nucleotide	Nausea and vomiting	-	P-II
TAK-510	Peptide agonist (sub-cutaneous)	Peptide/ Oligo-nucleotide	Nausea and vomiting	-	P-I
TAK-105	Peptide agonist (sub-cutaneous)	Peptide/ Oligo-nucleotide	Nausea and vomiting	-	P-I
TAK-062	Glutenase (oral)	Biologic and other	Celiac disease	-	P-I

1. Partnership with Zedira and Dr. Falk Pharma. Takeda has an exclusive license to develop and commercialize TAK-227/ZED1227 in the US and other territories outside of Europe, Canada, Australia, and China.
2. Partnership with Theravance Biopharma, Inc.
3. Partnership with Arrowhead Pharmaceuticals, Inc.
4. Partnership with Enterome Bioscience SA
5. Acquired development and commercialization license for TAK-101 from COUR Pharmaceuticals. Previously known as TIMP-GLIA.
6. In active discussions with the FDA. Timelines under review; target resubmission filing anticipated in FY2023.

* Event occurred after the end of the Q2 reporting period: Update after October 1, 2022

Additions since FY2022 Q1: TAK-227/ZDE1227 Celiac disease (P-II (b))
Removals since FY2022 Q1: None

Plasma-Derived Therapies Pipeline

Development code <generic name> Brand name (country/region)	**Type of Drug (administration route)**	**Modality**	**Indications / additional formulations**	**Country/ Region**	**Stage**
TAK-771[1] <IG Infusion 10% (Human) w/ Recombinant Human Hyaluronidase> *HYQVIA* (U.S., EU)	Immunoglobulin (IgG) + recombinant hyaluronidase replacement therapy (injection)	Biologic and other	Pediatric indication for primary immunodeficiency	U.S.	Filed (Jul 2022)
			Chronic inflammatory demyelinating polyradiculoneuropathy	U.S. EU	P-III P-III
			Chronic inflammatory demyelinating polyradiculoneuropathy and Multifocal Motor Neuropathy	Japan	P-III
			Primary Immunodeficiencies	Japan	P-III
TAK-664 *CUVITRU* (U.S., EU)	Immunoglobulin 20% [human] (subcutaneous)	Biologic and other	Primary Immunodeficiencies and Secondary Immunodeficiencies	Japan	Filed (Oct 2022)*
TAK-330 *PROTHROMPLEX TOTAL* (EU)	Four-factor prothrombin complex concentrate [human] (injection)	Biologic and other	Coagulation Disorder, Direct Oral Anticoagulants (DOAC) reversal in surgical situations	U.S.	P-III
TAK-880 <10% IVIG (Low IgA)>	Immunoglobulin (10%) [human] (injection) (Low IgA)	Biologic and other	Primary Immunodeficiencies and Multifocal Motor Neuropathy	U.S. EU	Filing in preparation[2]

TAK-662 *CEPROTIN* (U.S., EU)	Protein C concentrate [human] (injection)	Biologic and other	Severe congenital protein C deficiency	Japan	P-I/II
TAK-881 <Facilitated 20% SCIG>	Immunoglobulin (20%) [human] + recombinant hyaluronidase replacement therapy (injection)	Biologic and other	Immunodeficiencies	-	P-I/II

1. Partnership with Halozyme
2. Non-interventional study to collect data is in progress

* Event occurred after the end of the Q2 reporting period: Update after October 1, 2022

Additions since FY2022 Q1: TAK-330 for Coagulation Disorder, Direct Oral Anticoagulants (DOAC) reversal in surgical situations (U.S., P-III)
Removals since FY2022 Q1: None

Vaccines Pipeline

Development code Brand name (country/region)	**Type of vaccine (administration route)**	**Modality**	**Indications / additional formulations**	**Country/ Region**	**Stage**
TAK-019/ NVX-CoV2373[1] *Nuvaxovid Intramuscular Injection* (Japan)	SARS-CoV-2 vaccine (injection)	Biologic and other	Active immunization for the prevention of COVID-19 (primary and booster)	Japan	Approved (Apr 2022)
			Active immunization for the prevention of COVID-19 (heterologous booster)	Japan	P-III
TAK-003[2]	Tetravalent dengue vaccine (injection)	Biologic and other	For the prevention of dengue fever of any severity, due to any serotype, in individuals aged 4 and older	EU -	Filed (Mar 2021)[3] P-III
			For the prevention of dengue fever of any severity, due to any serotype, in individuals aged 4 and older (booster extension)	-	P-III
TAK-426[4]	Zika vaccine (injection)	Biologic and other	Active immunization for the prevention of disease caused by Zika virus	-	P-I

1. Partnership with Novavax, Inc.
2. QDENGA (TAK-003) was approved by the Indonesia National Agency for Drug and Food Control, Badan Pengawas Obat dan Makanan (BPOM) in August 2022, for the prevention of dengue disease caused by any serotype in individuals six years to 45 years of age.
3. Takeda participated in the European Medicines Agency's (EMA) parallel assessment of a medicinal product for use in EU, and through the EU-M4all procedure for countries outside of the EU. In October 2022, the Committee for Medicinal Products for Human Use (CHMP) of the EMA recommended the approval of TAK-003 in Europe and in dengue-endemic countries participating in the parallel EU-M4all procedure.
4. Partnership with The Biomedical Advanced Research and Development Authority (BARDA) of the U.S. Government

Additions since FY2022 Q1: TAK-019 for Active immunization for the prevention of COVID-19 (heterologous booster) (JP, P-III)
TAK-003 for the prevention of dengue fever of any severity, due to any serotype, in individuals aged 4 and older (booster extension) (P-III)

Removals since FY2022 Q1: None

II. Recent Progress in stage [Progress in stage since April 1st, 2022]

Development code <generic name>	Indications / additional formulations	Country/Region	Progress in stage
TAK-019/ NVX-CoV2373	Active immunization for the prevention of COVID-19 (primary and booster)	Japan	Approved (Apr 2022)
SGN-35 <brentuximab vedotin>	1L CD30-positive Hodgkin lymphoma (pediatric indication)	Japan	Approved (May 2022)
TAK-672	Acquired hemophilia A (AHA)	China	Filed (Jun 2022)
TAK-771 <IG Infusion 10% (Human) w/ Recombinant Human Hyaluronidase>	Pediatric indication for primary immunodeficiency	U.S.	Filed (Jul 2022)
TAK-438 <vonoprazan>	Acid related diseases (adjunct to *Helicobacter pylori* eradication)	China	Filed (Aug 2022)
TAK-743 <lanadelumab>	Pediatric Hereditary Angioedema	U.S.	Filed (Oct 2022)*
TAK-664	Primary Immunodeficiencies and Secondary Immunodeficiencies	Japan	Filed (Oct 2022)*
<niraparib>	Breast cancer	Japan	P-III
TAK-620 <maribavir>	Treatment of CMV Infection/disease Post Transplantation (Including HSCT)	Japan	P-III
TAK-755	Congenital Thrombotic Thrombocytopenic Purpura	Japan, China	P-III
TAK-330	Coagulation Disorder, Direct Oral Anticoagulants (DOAC) reversal in surgical situations	U.S.	P-III
TAK-573 <modakafusp alfa>	Relapsed/refractory Multiple Myeloma	-	P-II
TAK-007	Relapsed/refractory B cell malignancies	-	P-II
TAK-500	Solid tumors	-	P-I
TAK-280	B7-H3 expressing solid tumors	-	P-I
TAK-920/DNL919	Alzheimer's disease	-	P-I

* Event occurred after the end of the Q2 reporting period: Update after October 1, 2022

III. Discontinued projects [Update since April 1st, 2022]

Development code <generic name>	Indications (Region/Country, Stage)	Reason
<brigatinib>	2L ALK-positive Non-Small Cell Lung Cancer (head-to-head with alectinib) (U.S., EU, P-III)	The study met futility boundary for the primary endpoint.
TAK-994	Narcolepsy (P-II)	TAK-994 was on clinical hold, we have made data driven decision to stop further development and pivot to TAK-861 and other molecules in orexin portfolio like TAK-925.
TAK-039	Clostridium difficile infection (P-I)	Takeda made the strategic decision not to continue pursuing TAK-039 in order to further optimize the portfolio.
TAK-605	Solid tumors (P-I)	Takeda has decided to terminate its collaboration with Turnstone Biologics to develop the armored oncolytic virus TAK-605 for strategic reasons and has returned global rights to the asset back to Turnstone. The two companies' discovery efforts to identify additional novel product candidates based on the vaccinia virus platform are ongoing.
TAK-834	Hypoparathyroidism (P-I study in Japan completed)	Japan development will be discontinued along with the discontinuation of manufacturing NATPAR/NATPARA globally.

IV. Main Research & Development collaborations/partnering

– This table primarily shows the main research & development collaborations/partnering and externalization projects. This list is not a" comprehensive list of all Takeda R&D collaborations.

– ‡ shows collaborations/partnering and ♦ shows externalization project, which have been executed since April 1, 2022.

Oncology

Partner	Country of incorporation	Subject
Adimab	U.S.	Agreement for the discovery, development and commercialization of three mAbs and three CD3 Bi-Specific antibodies for oncology indications.
Crescendo Biologics	U.K	Collaboration and licensing agreement for the discovery, development and commercialization of Humabody®-based therapeutics for cancer indications.
Egle Therapeutics	France	Identify novel tumor-specific regulatory T cell targets and develop unique anti-suppressor-based immunotherapies.
Exelixis, Inc.	U.S.	Exclusive licensing agreement to commercialize and develop novel cancer therapy cabozantinib and all potential future cabozantinib indications in Japan, including advanced renal cell carcinoma and hepatocellular carcinoma.
GlaxoSmithKline	U.K.	Exclusive licensing agreement to develop and commercialize novel cancer therapy niraparib for the treatment of all tumor types in Japan, and all tumor types excluding prostate cancer in South Korea and Taiwan.
Heidelberg Pharma	Germany	Antibody-Drug-Conjugate (ADC) research collaboration on 2 targets and licensing agreement (α-amanitin payload and proprietary linker).
KSQ Therapeutics	U.S.	Strategic collaboration to research, develop and commercialize novel immune-based therapies for cancer using KSQ's CRISPRomics® technology.
MD Anderson Cancer Center (MDACC)	U.S.	Exclusive license and research agreement to utilize MDACC's platform and expertise, and to leverage Takeda's development, manufacturing and commercialization capabilities to bring patients cord blood-derived chimeric antigen receptor-directed natural killer (CAR-NK) cell therapies for the treatment of B cell malignancies and other cancers.
Memorial Sloan Kettering Cancer Center	U.S.	Strategic research collaboration and license to develop novel chimeric antigen receptor T cell (CAR-T) products for the treatment of multiple myeloma, acute myeloid leukemia and additional solid tumor indications. The collaboration is co-led by Michel Sadelain, who is currently head of the Center for Cell Engineering at Memorial Sloan Kettering
National Cancer Center of Japan	Japan	Partnership agreement 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.
Noile-Immune Biotech	Japan	Collaboration agreement for the development of next generation CAR-T cell therapy, developed by Professor Koji Tamada at Yamaguchi University. Takeda has exclusive options to obtain licensing rights for the development and commercialization of Noile-Immune Biotech's pipeline and products resulting from this partnership. Due to the success of the collaboration, Takeda licensed NIB-102 and NIB-103.
Presage Biosciences	U.S.	Research collaboration and license for multiple programs using Presage's proprietary platform CIVO to evaluate patients' unique responses to microdoses of cancer drugs.
Seagen	U.S.	Agreement for the joint development of ADCETRIS, an ADC technology which targets CD30 for the treatment of HL. Approved in 67 countries with ongoing clinical trials for additional indications.
Teva	Israel	Agreement for worldwide License to TEV-48573/TAK-573 (modakafusp alfa, Anti-CD38-Attenukine™) and multi-target discovery collaboration accessing Teva's Attenukine™ platform.
Turnstone Biologics	U.S.	Collaboration to conduct collaborative discovery efforts to identify additional novel product candidates based on a Turnstone's vaccinia virus platform. Takeda has decided to terminate its collaboration to develop the armored oncolytic virus TAK-605 for strategic reasons and has returned global rights to the asset back to Turnstone (FY2022).

Rare Genetics and Hematology

Partner	Country of incorporation	Subject
Asklepios Biopharmaceuticals	U.S.	Agreement for multiple research and development collaborations using FVIII Gene Therapy for the treatment of Hemophilia A and B.
BioMarin	U.S.	Agreement for the in-license of enabling technology for the exogenous replacement of Arylsulfatase A enzyme with intrathecal (IT) administration directly into the central nervous system for the long-term treatment of patients with metachromatic leukodystrophy (MLD), a rapidly-progressive and ultimately fatal neuro-degenerative rare disease (TAK-611).
Carmine Therapeutics	Singapore	Research collaboration agreement to discover, develop and commercialize transformative non-viral gene therapies for two rare disease targets using Carmine's REGENT(TM) technology, based on red blood cell extracellular vesicles.
Code Bio	U.S.	Collaboration and license agreement for Takeda and Code Bio to design and develop a targeted gene therapy leveraging Code Bio's 3DNA platform for a liver-directed rare disease program, plus conduct additional studies for central nervous system-directed rare disease programs. Takeda has the right to exercise options for an exclusive license for four programs.
Codexis, Inc.	U.S.	Strategic collaboration and license for the research and development of novel gene therapies for certain disease indications, including the treatment of lysosomal storage disorders and blood factor deficiencies.
Ensoma	U.S.	Research collaboration and license provides Takeda with an exclusive worldwide license to Ensoma's Engenious™ vectors for up to five rare disease indication.
Evox Therapeutics	U.K.	Collaboration for developing novel protein replacement and mRNA therapies and targeted delivery using Evox's proprietary exosome technology. Partnership for up to five rare disease targets with Takeda assuming responsibility for its clinical development.
Evozyne	U.S.	Research collaboration and license agreement with Takeda to research and develop proteins that could be incorporated into next-generation gene therapies for up to four rare disease targets.
GlaxoSmithKline	U.K.	In-license agreement between GSK and University of Michigan for TAK-620 (maribavir) in the treatment of human cytomegalovirus.
JCR Pharmaceuticals	Japan	Exclusive collaboration and license agreement to commercialize TAK-141 (JR-141, pabinafusp alfa), applied with J-Brain Cargo®, JCR's proprietary blood-brain barrier (BBB) penetration technology, for the treatment of Hunter syndrome (MPS II). Takeda will exclusively commercialize TAK-141 outside of the United States, including Canada, Europe, and other regions (excluding Japan and certain other Asia-Pacific countries). Takeda receives an option under a separate option agreement, which allows Takeda to acquire an exclusive license to commercialize TAK-141 in the U.S. upon completion of the Phase 3 program. In March 2022, Takeda and JCR has entered into new exclusive license and collaboration agreement to develop gene therapies that apply J-Brain Cargo® BBB penetration technology for lysosomal storage disorders (LSDs); Takeda has the option to nominate additional rare disease and other disease indications.
Immusoft	U.S.	Research collaboration and license option agreement to discover, develop and commercialize cell therapies in rare inherited metabolic disorders with central nervous system (CNS) manifestations and complications using Immusoft's Immune System Programming (ISP™) technology platform.
IPSEN	France	Purchase agreement for the development of Obizur for the treatment of Acquired Hemophilia A including for patients with Congenital Hemophilia A with inhibitors indication in elective or emergency surgery.
KM Biologics	Japan	Collaboration and license agreement for the development of therapeutic uses of rADAMTS13 (TAK-755), including but not limited to TTP.
Poseida Therapeutics	U.S.	Research collaboration and exclusive license agreement to utilize Poseida's piggyBac, Cas-CLOVER, biodegradable DNA and RNA nanoparticle delivery technology and other proprietary genetic engineering platforms for up to eight gene therapies. The collaboration will focus on developing non-viral in vivo gene therapy programs, including Poseida's Hemophilia A program.
Selecta Biosciences	U.S.	Research collaboration and license agreement to develop targeted, next-generation gene therapies for two indications within the field of lysosomal storage disorders using Selecta's ImmTOR platform.
Xenetic Biosciences	U.S.	Exclusive R&D license agreement for PolyXen delivery technology for hemophilia factors VII, VIII, IX, X.

Neuroscience

Partner	Country of incorporation	Subject
Anima Biotech	U.S.	Strategic collaboration to discover and develop mRNA translation modulators for genetically-defined neurological diseases.
AstraZeneca	UK	Agreement for the joint development and commercialization of MEDI1341/TAK-341, an alpha-synuclein antibody currently in development as a potential treatment for Parkinson's disease.
BridGene Biosciences	U.S.	Research collaboration to discover small molecule drugs for "undruggable" targets using BridGene's chemoproteomics platform.
CNDAP (Cure Network Dolby Acceleration Partners)	U.S.	Research collaboration to develop small molecules targeting tau, a protein involved in Alzheimer's disease and other major brain disorders.
Denali Therapeutics	U.S.	Strategic option and collaboration agreement to develop and commercialize up to three specified therapeutic product candidates for neurodegenerative diseases, incorporating Denali's transport vehicle (TV) platform for increased exposure of biotherapeutic products in the brain; options exercised on DNL593/TAK-594 and DNL919/TAK-920 in Q3 FY2021.
Lundbeck	Denmark	Collaboration agreement to develop and commercialize vortioxetine.
Luxna Biotech	Japan	Exclusive worldwide license agreement for the use of Luxna's breakthrough xeno nucleic acid technology for multiple undisclosed target genes in the area of neurological diseases.
Neurocrine Biosciences	U.S.	Collaboration to develop and commercialize 7 compounds in Takeda's early-to-mid stage neuroscience pipeline, including TAK-041, TAK-653 and TAK-831. Takeda will be entitled to certain development milestones, commercial milestones and royalties on net sales and will, at certain development events, be able opt in or out of a 50:50 profit share on all clinical programs on an asset-by-asset basis.
PeptiDream	Japan	Collaborative research and exclusive license agreement to create peptide-drug conjugates (PDCs) for neuromuscular and neurodegenerative diseases.
Skyhawk Therapeutics	U.S.	Collaboration and licensing agreement to develop and commercialize RNA modulation therapies targeting neurodegenerative diseases.
StrideBio	U.S.	Collaboration and license agreement to develop *in vivo* adeno-associated viruses (AAV) based therapies for Friedreich's Ataxia (FA) and two additional undisclosed targets.
Wave Life Sciences	Singapore	Multi-program option agreement to co-develop and co-commercialize antisense oligonucleotides for a range of neurological diseases.

Gastroenterology

Partner	Country of incorporation	Subject
Ambys Medicines	U.S.	Collaboration agreement for the application of novel modalities, including cell and gene therapy and gain-of-function drug therapy, to meet the urgent need for treatments that restore liver function and prevent the progression to liver failure across multiple liver diseases. Under the terms of the agreement, Takeda has an option to ex-U.S. commercialization rights for the first 4 products that reach an investigational new drug application.
Arcturus	U.S.	Collaboration agreement to develop RNA-based therapeutics for the treatment of non-alcoholic steatohepatitis and other gastrointestinal related disorders using Arcturus' wholly-owned LUNAR™ lipid-mediated delivery systems and UNA Oligomer chemistry.
Arrowhead Pharmaceuticals	U.S.	Collaboration and licensing agreement to develop fazirsiran (TAK-999; ARO-AAT), a Phase 2 investigational RNA interference (RNAi) therapy in development to treat alpha-1 antitrypsin-associated liver disease (AATLD). ARO-AAT is a potential first-in-class therapy designed to reduce the production of mutant alpha-1 antitrypsin protein, the cause of AATLD progression.
Beacon Discovery	U.S.	Collaboration agreement for the G-protein coupled receptor drug discovery and development program to identify drug candidates for a range of gastrointestinal disorders. The agreement grants Takeda worldwide rights to develop, manufacture and commercialize products resulting from the collaboration.
Cerevance	U.S.	Multi-year research alliance to identify novel target proteins expressed in the central nervous system and to develop new therapies against them for certain GI disorders. Goal of the collaboration is to select, confirm and validate targets from gene expression data sets generated by Cerevance's NETSseq technology.
COUR Pharmaceuticals	U.S.	Takeda has acquired an exclusive global license to develop and commercialize the investigational medicine TIMP-GLIA (TAK-101), an immune modifying nanoparticle containing gliadin proteins.
Engitix	U.K.	Collaboration and licensing agreement to utilize Engitix's unique extracellular matrix discovery platform to identify and develop novel therapeutics for liver fibrosis and fibrostenotic inflammatory bowel disease, including Crohn's disease and ulcerative colitis.
Enterome	France	Collaboration agreement to research and develop microbiome targets thought to play crucial roles in gastrointestinal disorders, including inflammatory bowel diseases (e.g. ulcerative colitis). The agreement includes a global license and co-development of EB8018/TAK-018 in Crohn's disease.
Finch Therapeutics	U.S.	Global agreement to develop TAK-524, a live biotherapeutic product composed of cultured bacterial strains linked to favorable clinical outcomes in studies of microbiota transplantations in inflammatory bowel disease. Under the terms of the agreement, Takeda has the exclusive worldwide rights to develop and commercialize TAK-524 and rights to follow-on products in inflammatory bowel diseases. Following a contract amendment in Aug 2021, Takeda assumed sole responsibility for development of TAK-524, prior to the start of clinical development. Following a review of its pipeline, Takeda informed Finch of its decision to terminate the collaboration with Finch, effective November 17, 2022, in accordance with the terms of the agreement, resulting in the return to Finch of worldwide rights to develop and commercialize TAK-524 and any other microbiome product candidates for inflammatory bowel disease.
Genevant Sciences Corporation	U.S.	Collaboration and License Agreements to leverage Genevant's hepatic stellate cell-partitioning LNP platform to deliver Takeda-designed RNAi oligonucleotides intended to halt or reverse the progression of liver fibrosis, and to deliver Takeda-designed non-viral gene therapies for the treatment of specified rare liver diseases.
Mirum Pharmaceuticals	U.S.	Exclusive licensing agreement for the development and commercialization of maralixibat in Japan for Alagille syndrome (ALGS), progressive familial intrahepatic cholestasis (PFIC), and biliary atresia (BA).
Sosei Heptares	UK	Collaboration and License agreement to leverage Sosei Heptares's StaR® technology and structural biology expertise with GPCRs to enable structure based drug discovery to advance novel therapeutics for gastroenterology diseases.
Theravance Biopharma	U.S.	Global license, development and commercialization agreement for TAK-954, a selective 5-HT4 receptor agonist for motility disorders.
UCSD/Fortis Advisors	U.S.	Technology license for the development of oral budesonide formulation (TAK-721) for treatment of eosinophilic esophagitis.
Zedira/Dr. Falk Pharma[‡*]	Germany	Collaboration and license agreement to develop and commercialize a potential first-in-class therapy TAK-227/ZED1227, a tissue transglutaminase 2 (TG2) inhibitor, designed to prevent the immune response to gluten in celiac disease. Takeda has exclusive rights in the US and other territories outside of Europe, Canada, Australia and China.

* Event occurred after the end of the Q2 reporting period: Update after October 1, 2022

Plasma Derived Therapies

Partner	Country of incorporation	Subject
Halozyme	U.S.	Agreement for the in-license of Halozyme's proprietary ENHANZE™ platform technology to increase dispersion and absorption of HyQvia. Ongoing development work for a U.S. pediatric indication to treat primary immunodeficiencies and a Phase 3 indication in Chronic Inflammatory Demyelinating Polyradiculoneuropathy.
Kamada	Israel	In-license agreement to develop and commercialize IV Alpha-1 proteinase inhibitor (Glassia); Exclusive supply and distribution of Glassia in the U.S., Canada, Australia and New Zealand; work on post market commitments ongoing.
Johnson & Johnson/Momenta Pharmaceuticals	U.S.	In-licensing agreement with Momenta Pharmaceuticals, Inc. which was acquired by Johnson & Johnson for an investigational hypersialylated immunoglobulin (hsIgG) candidate.
ProThera Biologics	U.S.	Global licensing agreement to develop a novel plasma-derived Inter-alpha Inhibitor Proteins (IAIP) therapy for the treatment of acute inflammatory conditions.
PreviPharma	EU	Research collaboration and option agreement to develop new targeted proteins

Vaccines

Partner	Country of incorporation	Subject
U.S. Government - The Biomedical Advanced Research and Development Authority (BARDA)	U.S.	Partnership to develop TAK-426, a Zika vaccine candidate, for the U.S. with the option to use data generated for filing also in affected regions around the world.
Novavax	U.S.	Partnership for the development, manufacturing and commercialization of Nuvaxovid Intramuscular Injection, Novavax' COVID-19 vaccine in Japan, which is being funded by the Government of Japan's Ministry of Health, Labour and Welfare.(MHLW) and Agency for Medical Research and Development (AMED). Takeda finalized an agreement with the MHLW to supply 150 million doses of Nuvaxovid, the supply of which will be dependent on many factors, including need.
Moderna	U.S.	Three-way agreement with Moderna and the Government of Japan's Ministry of Health Labour & Welfare (MHLW) to import and distribute Moderna's COVID-19 vaccine, known as Spikevax Intermuscular Injection in Japan. The MHLW granted special approval for the primary series in May 2021 and regulatory approval for a 50 µg booster dose in December 2021. Takeda started importation of 93 million doses (50 µg booster dose) to Japan in 2022, in addition to the 50 million doses (100 µg) delivered in 2021. As of August 2022, Moderna assumed responsibility for all Spikevax™ activities, including import, local regulatory, development, quality assurance and commercialization. Takeda will continue to provide distribution support under the current national vaccination campaign for Moderna COVID-19 vaccines for a transitional period. Both companies will be responsible for ensuring proper implementation of operations associated with this transfer.

Other / Multiple Therapeutic Area

Partner	Country of incorporation	Subject
Bridge Medicines	U.S.	Partnership with Tri-Institutional Therapeutics Discovery Institute, Bay City Capital and Deerfield Management in the establishment of Bridge Medicines. Bridge Medicines will give financial, operational and managerial support to move projects seamlessly from a validating, proof-of-concept study to an in-human clinical trial.
Center for iPS Cell Research Application, Kyoto University (CiRA)	Japan	Collaboration agreement for clinical applications of iPS cells in Takeda strategic areas including applications in neurosciences, oncology and GI as well as discovery efforts in additional areas of compelling iPSC translational science.
Charles River Laboratories	U.S.	Collaboration on multiple integrated programs across Takeda's core therapeutic areas using Charles River Laboratories' end-to-end drug discovery and safety assessment platform to progress these programs towards candidate status.

Evotec SE	Germany	Research alliance to support Takeda's growing number of research stage gene therapy discovery programs. Evotec and Takeda have also entered into a multi-RNA target alliance to discover and develop RNA targeting small molecule therapeutics for targets that are difficult to address via more conventional approaches.
Massachusetts Institute of Technology	U.S.	MIT-Takeda Program to fuel the development and application of artificial intelligence (AI) capabilities to benefit human health and drug development. Centered within the Abdul Latif Jameel Clinic for Machine Learning in Health (J-Clinic), the new program will leverage the combined expertise of both organizations, and is supported by Takeda's three-year investment (with the potential for a two-year extension).
Portal Instruments	U.S.	Agreement for the development and commercialization of Portal's jet injector drug delivery device for potential use with Takeda's investigational or approved biologic medicines.
Schrödinger	U.S.	Agreement for the multi-target research collaboration combining Schrödinger's in silico platform-driven drug discovery capabilities with Takeda's deep therapeutic area knowledge and expertise in structural biology.
Stanford University	U.S.	Collaboration agreement with Stanford University to form the Stanford Alliance for Innovative Medicines to more effectively develop innovative treatments and therapies.
Tri-Institutional Therapeutics Discovery Institute (Tri-I TDI)	U.S.	Agreement for the collaboration of academic institutions and industry to more effectively develop innovative treatments and therapies.
Twist Bioscience	U.S.	Agreement and license for Takeda to access Twist's "Library of Libraries," a panel of synthetic antibody phage display libraries derived only from sequences that exist in the human body. Together, the companies will work to discover, validate and optimize new antibody candidates.

Completed Partnerships [Update since April 1st, 2022]

Partner	Country of incorporation	Subject
GammaDelta Therapeutics	U.K.	Collaboration agreement to discover and develop new immunotherapies in oncology using GammaDelta Therapeutics' novel T cell platform based on the unique properties of gamma delta T cells derived from human tissues. Takeda exercised its option to acquire GammaDelta Therapeutics in October 2021. Separately, in January 2022, Takeda exercised its option to acquire Adaptate Biotherapeutics, a UK based spin-out company from GammaDelta Therapeutics focused on developing antibody-based therapeutics for the modulation of variable delta 1 (Vδ1) gamma delta (γδ). Both acquisitions were closed in April 2022.
NuBiyota	Canada	Collaboration and License Agreement for the development and commercialization of Microbial Ecosystem Therapeutic (MET) products for gastroenterology indications.

■ Clinical study protocol summaries

Clinical study protocol summaries are disclosed on the English-language web-site (https://clinicaltrials.takeda.com/) and clinical study protocol information in the Japanese-language is disclosed on the Japanese-language web-site (https://www.takeda.com/what-we-do/research-and-development/takeda-clinical-trial-transparency/).

We anticipate that this disclosure will assure transparency of information on Takeda's 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. Supplementary Revenue Information

Revenue by region
Year to date

(Bn JPY)	Reported *1 FY21Q2 YTD	Reported *1 FY22Q2 YTD	YOY		Core CER Change *1*5 YOY
Total revenue	1,794.4	1,974.8	180.3	10.1 %	5.5 %
Japan *2	390.9	261.4	(129.5)	(33.1)%	1.0 %
% of revenue	21.8%	13.2%	(8.5)pt		
United States	838.4	1,032.5	194.1	23.2 %	3.2 %
% of revenue	46.7%	52.3%	5.6pt		
Europe and Canada	354.0	409.0	55.0	15.5 %	8.3 %
% of revenue	19.7%	20.7%	1.0pt		
Growth and Emerging Markets *3	211.2	271.9	60.7	28.7 %	15.5 %
% of revenue	11.8%	13.8%	2.0pt		
Asia (excluding Japan)	89.7	105.7	16.0	17.8 %	3.8 %
% of revenue	5.0%	5.4%	0.4pt		
Latin America	61.4	83.3	21.9	35.7 %	18.7 %
% of revenue	3.4%	4.2%	0.8pt		
Russia/CIS	25.1	37.8	12.7	50.7 %	19.6 %
% of revenue	1.4%	1.9%	0.5pt		
Other *4	35.0	45.1	10.1	28.8 %	36.7 %
% of revenue	2.0%	2.3%	0.3pt		
Of which royalty / service income *2	183.1	60.4	(122.8)	(67.0)%	13.4 %

*1 Revenue amount is classified into countries or regions based on the customer location.
*2 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in FY21Q2YTD.
*3 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa.
*4 Other region includes Middle East, Oceania and Africa.
*5 Refer to "*Financial Appendix*" for the definition and reconciliations of core financial measures and CER (Constant Exchange Rate).

Quarterly

	Reported *1											
	FY21				FY22							
(Bn JPY)	Q1	Q2	Q3	Q4	Q1	YOY	Q2	YOY	Q3	YOY	Q4	YOY
Total revenue	949.6	844.8	901.3	873.3	972.5	2.4%	1002.3	18.6%				
Japan *2	259.0	131.9	139.4	128.7	140.5	(45.7%)	120.8	(8.4%)				
% of revenue	27.3%	15.6%	15.5%	14.7%	14.5%		12.1%					
United States	412.2	426.2	458.6	417.4	501.1	21.6%	531.5	24.7%				
% of revenue	43.4%	50.4%	50.9%	47.8%	51.5%		53.0 %					
Europe and Canada	178.7	175.2	187.0	198.2	205.6	15.0%	203.4	16.1%				
% of revenue	18.8%	20.7%	20.7%	22.7%	21.1%		20.3 %					
Growth and Emerging Markets *3	99.7	111.5	116.3	129.0	125.3	25.7%	146.6	31.5%				
% of revenue	10.5%	13.2%	12.9%	14.8%	12.9%		14.6 %					
Asia (excluding Japan)	40.3	49.4	50.1	57.2	46.1	14.4%	59.6	20.7%				
% of revenue	4.2%	5.8%	5.6%	6.5%	4.7%		5.9 %					
Latin America	30.1	31.3	32.2	34.9	40.3	34.0%	43.0	37.2%				
% of revenue	3.2%	3.7%	3.6%	4.0%	4.1%		4.3 %					
Russia/CIS	12.3	12.8	18.5	18.5	17.4	40.8%	20.5	60.4%				
% of revenue	1.3%	1.5%	2.1%	2.1%	1.8%		2.0 %					
Other *4	17.0	18.0	15.5	18.4	21.6	26.8%	23.6	30.7%				
% of revenue	1.8%	2.1%	1.7%	2.1%	2.2%		2.4 %					
Of which royalty / service income *2	157.7	25.4	27.4	62.7	33.6	(78.7%)	26.8	5.3%				

*1 Revenue amount is classified into countries or regions based on the customer location.

*2 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in FY21Q1.

*3 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa.

*4 Other region includes Middle East, Oceania and Africa.

Product Sales Analysis (vs PY Reported Actual) (Sales amount includes royalty income and service income)

- *Year to date*

(Bn JPY)	Reported												
	FY21Q2 YTD	FY22Q2 YTD	YOY	US	YOY	Japan	YOY	EUCAN	YOY	GEM*5	YOY	Ex-US	YOY
GI	**429.1**	**546.4**	**27.3 %**	**320.3**	**33.0 %**	**56.5**	**8.8 %**	**112.0**	**17.8 %**	**46.8**	**41.0 %**	**10.9**	**33.1 %**
ENTYVIO	255.9	346.6	35.4 %	243.8	42.3 %	6.7	23.3 %	78.8	18.3 %	17.3	37.4 %		
TAKECAB/VOCINTI *1	49.1	54.7	11.4 %	—	-	46.8	1.6 %	—	-	7.9	156.6 %		
GATTEX/REVESTIVE	36.8	48.4	31.5 %	37.1	21.4 %	2.5	1,634.8 %	6.3	18.6 %	2.5	214.5 %		
DEXILANT	25.7	38.0	47.8 %	23.0	56.0 %	—	-	6.5	33.5 %	8.6	39.5 %		
PANTOLOC/CONTROLOC*2	19.9	22.2	11.8 %	1.6	41.7 %	—	-	14.5	13.7 %	6.1	2.1 %		
LIALDA/MEZAVANT *3	11.7	11.3	(3.7)%	0.4	(88.2)%							10.9	33.1 %
PENTASA	10.0	4.7	(53.2)%	4.7	(53.2)%								
RESOLOR/MOTEGRITY	6.4	7.7	21.4 %	6.3	37.3 %	—	-	1.4	(20.4)%	—	-		
ALOFISEL	0.8	1.1	42.1 %	—	-	0.0	-	1.0	49.0 %	0.1	(12.1)%		
Others	12.7	11.6	(9.0)%	3.4	(30.5)%	0.4	38.8 %	3.5	12.5 %	4.3	(3.8)%		
Rare Diseases	**300.1**	**362.2**	**20.7 %**	**166.5**	**24.9 %**	**18.5**	**24.0 %**	**99.0**	**5.3 %**	**78.2**	**35.2 %**		
Rare Hematology	**141.6**	**155.7**	**10.0 %**	**67.5**	**10.0 %**	**11.6**	**(6.7)%**	**33.4**	**(4.8)%**	**43.3**	**32.1 %**		
ADVATE	61.3	62.4	1.8 %	30.6	7.8 %	2.0	(32.8)%	11.8	(16.4)%	17.9	13.9 %		
ADYNOVATE/ADYNOVI	30.0	34.4	14.8 %	15.8	18.5 %	7.1	(2.2)%	8.0	19.1 %	3.4	31.9 %		
FEIBA *4	20.2	21.3	5.6 %	6.4	5.1 %	0.5	19.6 %	4.7	(22.3)%	9.8	27.0 %		
RECOMBINATE	6.3	6.2	(1.9)%	5.8	(0.6)%	—	-	0.3	(16.3)%	0.0	(46.7)%		
HEMOFIL/IMMUNATE/IMMUNINE*4	8.4	10.7	27.2 %	1.6	(4.4)%	—	-	1.9	(18.3)%	7.1	63.4 %		
Other PDT Products *4	1.9	2.1	10.1 %	(0.0)	-	0.0	-	1.9	10.0 %	0.2	(0.4)%		
Others	13.5	18.7	38.1 %	7.1	20.8 %	1.9	12.7 %	4.8	26.6 %	4.8	125.6 %		
Rare Genetics and Other	**158.5**	**206.5**	**30.3 %**	**99.1**	**37.7 %**	**6.9**	**176.9 %**	**65.7**	**11.3 %**	**34.9**	**39.3 %**		
TAKHZYRO	47.5	72.8	53.2 %	53.9	47.7 %	0.5	-	14.6	46.6 %	3.9	256.9 %		
ELAPRASE	34.8	42.4	21.8 %	12.7	28.6 %	0.5	24.5 %	15.4	14.1 %	13.9	25.0 %		
REPLAGAL	25.9	34.3	32.3 %	—	-	4.6	478.2 %	19.1	8.1 %	10.7	42.3 %		
VPRIV	21.0	23.3	11.2 %	10.0	15.9 %	0.5	(14.3)%	8.0	1.5 %	4.8	24.6 %		
FIRAZYR	14.3	13.4	(6.8)%	8.2	7.9 %	0.9	21.8 %	2.9	(41.5)%	1.5	27.5 %		
CINRYZE *4	10.2	9.6	(6.4)%	6.9	(4.5)%	—	-	2.5	(7.3)%	0.2	(47.0)%		
LIVTENCITY	—	4.2	-	4.2	-	—	-	0.0	-	0.0	-		
Others	4.6	6.5	39.2 %	3.2	48.5 %	—	-	3.2	32.3 %	0.0	(45.8)%		

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

*2 generic name: pantoprazole

*3 License-out product : Regional breakdown is not available due to contract.

*4 PDT products

*5 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa

(Bn JPY)	Reported												
	FY21Q2 YTD	FY22Q2 YTD	YOY	US	YOY	Japan	YOY	EUCAN	YOY	GEM*5	YOY	Ex-US	YOY
PDT Immunology	**238.0**	**314.0**	**31.9 %**	**210.3**	**33.8 %**							**103.7**	**28.1 %**
immunoglobulin *1	181.3	245.1	35.2 %	185.6	37.0 %							59.4	29.6 %
albumin *1	41.7	51.8	24.0 %	11.4	14.3 %							40.4	27.0 %
Others *1	15.0	17.2	14.6 %	13.3	13.7 %							3.9	17.8 %
Oncology	**233.7**	**225.3**	**(3.6)%**	**85.2**	**(23.6)%**	**45.8**	**7.2 %**	**45.0**	**11.6 %**	**45.1**	**29.6 %**	**4.1**	**(5.2)%**
VELCADE *2	55.1	20.8	(62.2) %	19.9	(62.8) %							1.0	(42.5) %
LEUPLIN/ENANTONE	53.9	53.7	(0.4) %	9.8	(17.2) %	12.2	(18.9) %	17.7	5.1 %	13.9	37.6 %		
NINLARO	45.8	48.8	6.6 %	29.5	7.6 %	3.4	15.1 %	6.9	(0.1) %	9.0	5.7 %		
ADCETRIS	34.1	41.7	22.2 %			6.4	12.9 %	16.8	18.5 %	18.5	29.5 %		
ICLUSIG *2	17.9	23.2	30.0 %	20.1	32.0 %							3.1	18.4 %
VECTIBIX	12.8	13.3	4.0 %			13.3	4.0 %						
ALUNBRIG	6.2	9.7	55.6 %	3.8	21.8 %	0.9	79.4 %	2.9	64.7 %	2.2	139.5 %		
ZEJULA	3.3	6.4	89.8 %			5.2	89.6 %			1.1	90.4 %		
CABOMETYX	3.0	4.0	34.2 %			4.0	34.2 %						
EXKIVITY	0.2	1.4	509.4 %	1.4	501.3 %	—	-	0.0	-	0.0	-		
Others	1.3	2.2	67.3 %	0.8	186.5 %	0.4	-	0.7	7.4 %	0.4	(5.9) %		
Neuroscience	**233.7**	**302.3**	**29.3 %**	**233.4**	**28.4 %**	**19.7**	**23.2 %**	**40.7**	**32.1 %**	**8.5**	**66.6 %**		
VYVANSE/ELVANSE	159.3	211.2	32.6 %	170.4	29.2 %	0.2	(6.7) %	32.6	44.7 %	8.0	71.5 %		
TRINTELLIX	40.0	49.8	24.3 %	45.9	22.2 %	3.8	57.4 %			—	-		
INTUNIV	7.5	10.5	39.9 %	0.3	-	5.2	193.7 %	4.5	(15.9) %	0.5	20.3 %		
ADDERALL XR	9.6	12.5	30.1 %	11.4	31.8 %	—	-	1.1	14.2 %	—	-		
ROZEREM	6.3	6.5	3.2 %	0.1	(48.1) %	6.4	4.7 %	0.0	219.7 %	0.1	(0.4) %		
Others	11.0	11.8	7.4 %	5.2	47.2 %	4.1	(25.3) %	2.5	27.0 %	—	(100.0) %		
Others *3	**359.8**	**224.6**	**(37.6)%**										
AZILVA *4	40.4	37.2	(7.8) %	—	-	37.2	(7.8) %	—	-	—	-		
LOTRIGA	16.1	10.5	(34.6) %			10.5	(34.6) %						
FOSRENOL *2	7.0	7.5	7.5 %	0.9	(28.5) %							6.6	15.7 %
ACTOVEGIN	6.7	7.6	13.8 %	—	-	—	-	0.3	(21.0) %	7.3	16.2 %		

*1 PDT products

*2 License-out product : Regional breakdown is not available due to contract.

*3 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in FY21Q2YTD.

*4 The figures include the amounts of fixed dose combinations.

*5 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa

- Quarterly
- Q1

(Bn JPY)	Reported												
	FY21 Q1	FY22 Q1	YOY	US	YOY	Japan	YOY	EUCAN	YOY	GEM*5	YOY	Ex-US	YOY
GI	**210.5**	**270.4**	**28.4 %**	**158.4**	**34.7 %**	**28.7**	**12.1 %**	**55.7**	**18.3 %**	**22.2**	**38.8 %**	**5.4**	**26.6 %**
ENTYVIO	125.4	168.3	34.2 %	117.9	40.9 %	3.3	29.4 %	38.9	18.8 %	8.2	27.7 %		
TAKECAB/VOCINTI *1	24.3	27.6	13.9 %	—	-	24.0	4.9 %	—	-	3.6	164.1 %		
GATTEX/REVESTIVE	18.1	21.9	20.9 %	16.9	11.1 %	1.1	-	3.2	17.6 %	0.8	232.4 %		
DEXILANT	10.8	22.3	107.0 %	14.9	147.3 %	—	-	3.0	35.5 %	4.4	74.5 %		
PANTOLOC/CONTROLOC*2	10.4	11.3	8.5 %	0.9	37.7 %	—	-	7.4	11.4 %	3.0	(3.8)%		
LIALDA/MEZAVANT *3	6.4	5.7	(10.9)%	0.4	(83.6)%							5.4	26.6 %
PENTASA	4.8	2.6	(47.2)%	2.6	(47.2)%								
RESOLOR/MOTEGRITY	3.2	3.9	21.8 %	3.2	42.1 %	—	-	0.7	(25.1)%	—	-		
ALOFISEL	0.4	0.6	59.3 %	—	-	0.0	-	0.5	58.6 %	0.1	40.5 %		
Others	6.7	6.1	(8.5)%	1.7	(38.8)%	0.3	73.7 %	2.0	34.1 %	2.1	(6.4)%		
Rare Diseases	**155.5**	**181.6**	**16.8 %**	**82.6**	**16.0 %**	**9.7**	**17.1 %**	**51.0**	**7.5 %**	**38.3**	**34.5 %**		
Rare Hematology	**72.2**	**79.1**	**9.6 %**	**35.6**	**7.0 %**	**6.0**	**(7.0)%**	**17.1**	**(5.0)%**	**20.5**	**40.9 %**		
ADVATE	30.7	32.1	4.7 %	16.7	10.8 %	1.0	(34.7)%	6.2	(12.1)%	8.1	17.7 %		
ADYNOVATE/ADYNOVI	15.4	17.5	13.9 %	8.2	19.4 %	3.6	(1.9)%	4.1	13.9 %	1.6	31.0 %		
FEIBA *4	11.4	10.5	(7.6)%	2.9	(26.5)%	0.3	19.8 %	2.1	(34.2)%	5.3	29.2 %		
RECOMBINATE	3.7	3.2	(12.7)%	3.1	(12.0)%	—	-	0.2	(22.7)%	0.0	(23.5)%		
HEMOFIL/IMMUNATE/IMMUNINE*4	3.3	5.4	63.9 %	0.9	5.9 %	—	-	1.0	(1.6)%	3.5	148.1 %		
Other PDT Products *4	0.9	1.1	31.8 %	—	(100.0)%	—	-	1.0	18.3 %	0.2	441.4 %		
Others	6.9	9.2	33.3 %	3.9	24.4 %	1.0	14.1 %	2.5	22.6 %	1.8	115.2 %		
Rare Genetics and Other	**83.3**	**102.5**	**23.1 %**	**47.0**	**23.9 %**	**3.7**	**100.0 %**	**34.0**	**15.1 %**	**17.8**	**27.7 %**		
TAKHZYRO	25.5	34.0	33.7 %	24.8	24.6 %	0.3	-	7.4	49.3 %	1.6	153.3 %		
ELAPRASE	18.6	22.2	19.3 %	6.4	28.4 %	0.3	(39.5)%	7.7	15.0 %	7.8	20.7 %		
REPLAGAL	14.1	17.6	25.3 %	—	-	2.4	207.5 %	10.0	12.6 %	5.2	18.2 %		
VPRIV	10.5	11.9	13.5 %	5.0	13.9 %	0.3	(11.4)%	4.1	6.3 %	2.4	32.4 %		
FIRAZYR	6.9	6.8	(1.7)%	4.0	15.6 %	0.5	43.6 %	1.6	(38.5)%	0.7	35.8 %		
CINRYZE *4	5.6	4.7	(16.7)%	3.2	(23.5)%	—	-	1.4	4.4 %	0.1	(19.9)%		
LIVTENCITY	—	2.2	-	2.2	-	—	-	0.0	-	—	-		
Others	2.2	3.2	42.0 %	1.4	35.6 %	—	-	1.7	49.2 %	0.0	(25.8)%		

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

*2 generic name: pantoprazole

*3 License-out product : Regional breakdown is not available due to contract.

*4 PDT products

*5 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa

■ Q1

(Bn JPY)	Reported											
	FY21 Q1	FY22 Q1	YOY	US	YOY	Japan	YOY	EUCAN	YOY	GEM*5	YOY	Ex-US	YOY
PDT Immunology	**107.2**	**141.9**	**32.3 %**	**95.3**	**35.6 %**							**46.6**	**26.2 %**
immunoglobulin *1	81.6	111.8	37.0 %	83.5	41.4 %							28.4	25.6 %
albumin *1	17.8	22.0	23.8 %	5.8	10.4 %							16.2	29.5 %
Others *1	7.8	8.0	2.8 %	6.0	0.2 %							2.0	11.1 %
Oncology	**121.4**	**117.5**	**(3.2)%**	**48.2**	**(20.2)%**	**23.6**	**12.3 %**	**24.0**	**13.1 %**	**19.7**	**18.1 %**	**2.0**	**(3.1)%**
VELCADE *2	30.1	16.5	(45.3)%	15.9	(45.7)%							0.5	(29.8)%
LEUPLIN/ENANTONE	26.2	28.0	6.8 %	4.9	1.3 %	6.6	(12.3)%	10.1	4.5 %	6.4	52.1 %		
NINLARO	24.4	23.7	(2.6)%	14.8	(4.0)%	1.8	20.7 %	3.6	3.4 %	3.6	(10.8)%		
ADCETRIS	17.2	20.0	15.9 %			3.3	17.3 %	8.5	22.7 %	8.1	9.0 %		
ICLUSIG *2	10.4	11.3	8.6 %	9.8	8.0 %							1.5	12.8 %
VECTIBIX	6.2	6.7	8.4 %			6.7	8.4 %						
ALUNBRIG	3.1	4.5	45.9 %	1.9	11.8 %	0.5	133.9 %	1.4	74.7 %	0.7	86.0 %		
ZEJULA	1.6	3.0	94.0 %			2.5	94.1 %			0.6	93.7 %		
CABOMETYX	1.6	2.1	34.3 %			2.1	34.3 %						
EXKIVITY	—	0.7	-	0.7	-	—	-	—	-	0.0	-		
Others	0.6	1.0	47.7 %	0.3	105.0 %	0.2	-	0.3	12.8 %	0.2	(21.6)%		
Neuroscience	**113.4**	**142.4**	**25.6 %**	**108.4**	**24.2 %**	**9.7**	**29.3 %**	**20.4**	**28.9 %**	**3.9**	**39.5 %**		
VYVANSE/ELVANSE	79.2	100.0	26.2 %	80.0	22.8 %	0.2	13,929.4 %	16.1	40.2 %	3.6	41.9 %		
TRINTELLIX	17.9	21.4	20.0 %	19.5	16.9 %	1.9	64.6 %	—	-	—	-		
INTUNIV	3.3	5.1	57.3 %	0.2	-	2.2	522.6 %	2.4	(10.9)%	0.2	12.8 %		
ADDERALL XR	3.9	6.2	56.4 %	5.6	60.5 %	—	-	0.6	24.6 %	—	-		
ROZEREM	3.2	3.3	2.9 %	0.0	(53.1)%	3.2	4.5 %	0.0	-	0.0	29.2 %		
Others	5.9	6.4	8.4 %	2.9	60.3 %	2.2	(25.7)%	1.3	13.1 %	—	(100.0)%		
Others *3	**241.6**	**118.7**	**(50.9)%**										
AZILVA *4	22.6	19.6	(13.6)%	—	-	19.6	(13.6)%	—	-	—	-		
LOTRIGA	7.8	8.4	7.5 %	—	-	8.4	7.5 %	—	-	—	-		
FOSRENOL *2	3.4	4.2	24.9 %	0.7	23.9 %							3.5	25.2 %
ACTOVEGIN	3.2	3.2	(1.1)%	—	-	—	-	0.0	(77.6)%	3.1	4.3 %		

*1 PDT products

*2 License-out product : Regional breakdown is not available due to contract.

*3 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in FY21Q1.

*4 The figures include the amounts of fixed dose combinations.

*5 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa

■ Q2

(Bn JPY)	Reported													
	FY21 Q2	FY22 Q2	YOY	US	YOY	Japan	YOY	EUCAN	YOY	GEM*5	YOY	Ex-US	YOY
GI	**218.6**	**276.0**	**26.3 %**	**161.9**	**31.4 %**	**27.8**	**5.5 %**	**56.2**	**17.2 %**	**24.6**	**43.1 %**	**5.5**	**40.3 %**
ENTYVIO	130.5	178.3	36.6 %	125.9	43.8 %	3.4	17.9 %	39.9	17.8 %	9.1	47.5 %		
TAKECAB/VOCINTI *1	24.8	27.1	8.9 %	—	-	22.7	(1.6) %	—	-	4.3	150.6 %		
GATTEX/REVESTIVE	18.7	26.5	41.7 %	20.2	31.6 %	1.4	875.0 %	3.2	19.6 %	1.7	207.3 %		
DEXILANT	14.9	15.7	5.0 %	8.1	(7.1) %	—	-	3.4	31.7 %	4.1	14.8 %		
PANTOLOC/CONTROLOC*2	9.4	10.9	15.4 %	0.6	47.8 %	—	-	7.1	16.3 %	3.1	8.6 %		
LIALDA/MEZAVANT *3	5.3	5.6	4.9 %	0.1	(95.4) %							5.5	40.3 %
PENTASA	5.2	2.1	(58.8) %	2.1	(58.8) %								
RESOLOR/MOTEGRITY	3.2	3.8	20.9 %	3.2	32.7 %	—	-	0.7	(14.8) %	—	-		
ALOFISEL	0.4	0.5	25.9 %	—	-	0.0	-	0.5	39.3 %	0.0	(51.2) %		
Others	6.1	5.5	(9.5) %	1.7	(20.1) %	0.2	3.0 %	1.5	(7.7) %	2.1	(1.2) %		
Rare Diseases	**144.6**	**180.6**	**24.9 %**	**84.0**	**35.2 %**	**8.8**	**32.6 %**	**48.0**	**3.1 %**	**39.9**	**36.0 %**		
Rare Hematology	**69.4**	**76.6**	**10.4 %**	**31.9**	**13.5 %**	**5.6**	**(6.3)%**	**16.3**	**(4.6)%**	**22.8**	**25.1 %**		
ADVATE	30.6	30.3	(1.2) %	13.9	4.4 %	1.0	(30.7) %	5.6	(20.7) %	9.7	10.9 %		
ADYNOVATE/ADYNOVI	14.6	16.9	15.7 %	7.7	17.6 %	3.5	(2.4) %	3.9	25.0 %	1.8	32.7 %		
FEIBA *4	8.8	10.8	22.7 %	3.6	60.2 %	0.2	19.4 %	2.6	(8.8) %	4.4	24.4 %		
RECOMBINATE	2.6	3.0	13.2 %	2.8	15.9 %	—	-	0.2	(9.2) %	0.0	(58.6) %		
HEMOFIL/IMMUNATE/IMMUNINE*4	5.1	5.3	3.3 %	0.7	(15.2) %	—	-	0.9	(31.6) %	3.7	23.5 %		
Other PDT Products *4	1.1	1.0	(7.4) %	-0.0	-	0.0	-	0.9	2.1 %	0.1	(62.3) %		
Others	6.6	9.5	43.0 %	3.3	16.8 %	0.9	11.3 %	2.2	31.5 %	3.1	132.0 %		
Rare Genetics and Other	**75.2**	**104.0**	**38.3 %**	**52.1**	**53.1 %**	**3.1**	**410.1 %**	**31.7**	**7.5 %**	**17.1**	**53.9 %**		
TAKHZYRO	22.1	38.8	75.8 %	29.1	75.4 %	0.2	-	7.2	44.0 %	2.2	406.6 %		
ELAPRASE	16.2	20.2	24.7 %	6.3	28.9 %	0.2	-	7.6	13.3 %	6.1	31.0 %		
REPLAGAL	11.9	16.7	40.6 %	—	-	2.1	-	9.1	3.6 %	5.5	76.3 %		
VPRIV	10.5	11.5	8.9 %	4.9	18.0 %	0.3	(17.2) %	3.9	(3.1) %	2.4	17.6 %		
FIRAZYR	7.5	6.6	(11.5) %	4.2	1.5 %	0.4	0.7 %	1.3	(44.9) %	0.8	20.6 %		
CINRYZE *4	4.6	4.9	6.0 %	3.8	20.8 %	—	-	1.1	(19.2) %	0.1	(62.3) %		
LIVTENCITY	—	2.0	-	2.0	-	—	-	0.0	-	0.0	-		
Others	2.4	3.3	36.6 %	1.8	60.6 %	—	-	1.5	16.8 %	—	(78.1) %		

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

*2 generic name: pantoprazole

*3 License-out product : Regional breakdown is not available due to contract.

*4 PDT products

*5 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa

■ Q2

(Bn JPY)	Reported											
	FY21 Q2	FY22 Q2	YOY	US	YOY	Japan	YOY	EUCAN	YOY	GEM*4	YOY	Ex-US	YOY
PDT Immunology	**130.8**	**172.1**	**31.6 %**	**115.0**	**32.5 %**							**57.1**	**29.8 %**
immunoglobulin *1	99.7	133.2	33.6 %	102.2	33.6 %							31.1	33.6 %
albumin *1	24.0	29.8	24.1 %	5.6	18.8 %							24.2	25.4 %
Others *1	7.1	9.1	27.6 %	7.3	28.0 %							1.9	26.1 %
Oncology	**112.3**	**107.8**	**(4.0)%**	**37.0**	**(27.6)%**	**22.3**	**2.4 %**	**21.0**	**9.9 %**	**25.5**	**40.2 %**	**2.1**	**(7.2)%**
VELCADE *2	25.0	4.3	(82.6) %	3.9	(83.7) %							0.4	(53.4) %
LEUPLIN/ENANTONE	27.6	25.7	(7.1) %	4.9	(29.9) %	5.6	(25.4) %	7.6	6.0 %	7.5	27.2 %		
NINLARO	21.4	25.1	17.0 %	14.7	22.4 %	1.6	9.4 %	3.3	(3.6) %	5.4	20.8 %		
ADCETRIS	16.9	21.8	28.6 %			3.1	8.7 %	8.3	14.5 %	10.4	51.9 %		
ICLUSIG *2	7.5	12.0	59.6 %	10.3	67.4 %							1.6	23.8 %
VECTIBIX	6.6	6.6	(0.2) %			6.6	(0.2) %						
ALUNBRIG	3.1	5.2	65.3 %	1.9	33.9 %	0.4	40.3 %	1.4	55.9 %	1.4	181.3 %		
ZEJULA	1.8	3.3	86.0 %			2.7	85.8 %			0.6	87.3 %		
CABOMETYX	1.5	1.9	34.0 %			1.9	34.0 %						
EXKIVITY	0.2	0.7	212.2 %	0.7	206.1 %	—	-	0.0	-	0.0	-		
Others	0.7	1.3	85.9 %	0.5	258.7 %	0.2	-	0.4	2.7 %	0.2	12.9 %		
Neuroscience	**120.3**	**159.9**	**32.9 %**	**125.1**	**32.2 %**	**10.0**	**17.7 %**	**20.2**	**35.5 %**	**4.6**	**98.8 %**		
VYVANSE/ELVANSE	80.1	111.3	39.0 %	90.4	35.5 %	0.0	(96.7) %	16.5	49.4 %	4.4	107.2 %		
TRINTELLIX	22.2	28.4	27.9 %	26.4	26.4 %	2.0	51.0 %	—	-	—	-		
INTUNIV	4.2	5.3	26.5 %	0.1	261.1 %	2.9	109.8 %	2.0	(21.3) %	0.2	27.8 %		
ADDERALL XR	5.7	6.3	11.8 %	5.8	12.4 %	—	-	0.5	5.0 %	—	-		
ROZEREM	3.1	3.2	3.5 %	0.0	(42.2) %	3.1	5.0 %	0.0	114.1 %	0.0	(21.2) %		
Others	5.1	5.4	6.2 %	2.3	33.5 %	1.9	(24.8) %	1.1	48.0 %	—	-		
Others	**118.2**	**105.9**	**(10.4)%**										
AZILVA *3	17.7	17.6	(0.4) %	—	-	17.6	(0.4) %	—	-	—	-		
LOTRIGA	8.2	2.1	(74.6) %	—	-	2.1	(74.6) %	—	-	—	-		
FOSRENOL *2	3.6	3.3	(8.6) %	0.3	(66.5) %							3.1	6.4 %
ACTOVEGIN	3.5	4.4	27.7 %	—	-	—	-	0.3	35.1 %	4.1	27.2 %		

*1 PDT products

*2 License-out product : Regional breakdown is not available due to contract.

*3 The figures include the amounts of fixed dose combinations.

*4 GEM: Growth and Emerging Markets, which include Asia (excluding Japan), Latin America, Russia/CIS, Middle East, Oceania and Africa

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Product Sales Analysis (Reported & Core CER Change)

(Bn JPY)	FY21 Reported				FY22 Reported & Core CER Change													
					YOY			YOY				YOY				YOY			
	Q1	Q2	Q3	Q4	Q1	Reported (QTD)	Core@CER (QTD)	Q2	Reported (QTD)	Core@CER (QTD)	Core@CER (YTD)	Q3	Reported (QTD)	Core@CER (QTD)	Core@CER (YTD)	Q4	Reported (QTD)	Core@CER (QTD)	Core@CER (YTD)
GI	**210.5**	**218.6**	**236.6**	**210.0**	**270.4**	**28.4 %**	**15.4 %**	**276.0**	**26.3 %**	**8.2 %**	**11.7 %**								
ENTYVIO	125.4	130.5	139.5	126.4	168.3	34.2 %	19.4 %	178.3	36.6 %	15.0 %	17.1 %								
TAKECAB/VOCINTI *1	24.3	24.8	29.3	24.0	27.6	13.9 %	11.8 %	27.1	8.9 %	6.2 %	9.0 %								
GATTEX/REVESTIVE	18.1	18.7	19.8	19.1	21.9	20.9 %	7.0 %	26.5	41.7 %	17.6 %	12.4 %								
DEXILANT	10.8	14.9	14.4	10.6	22.3	107.0 %	76.5 %	15.7	5.0 %	(13.3) %	24.4 %								
PANTOLOC/CONTROLOC*2	10.4	9.4	10.2	10.2	11.3	8.5 %	2.1 %	10.9	15.4 %	5.7 %	3.8 %								
LIALDA/MEZAVANT	6.4	5.3	7.3	7.4	5.7	(10.9) %	(18.2) %	5.6	4.9 %	(7.6) %	(13.4) %								
PENTASA	4.8	5.2	5.7	4.4	2.6	(47.2) %	(54.1) %	2.1	(58.8) %	(67.0) %	(60.8) %								
RESOLOR/MOTEGRITY	3.2	3.2	3.7	2.9	3.9	21.8 %	7.3 %	3.8	20.9 %	0.6 %	4.0 %								
ALOFISEL	0.4	0.4	0.6	0.5	0.6	59.3 %	50.0 %	0.5	25.9 %	16.9 %	33.0 %								
Others	6.7	6.1	6.1	4.4	6.1	(8.5) %	(15.9) %	5.5	(9.5) %	(20.1) %	(17.9) %								
Rare Diseases	**155.5**	**144.6**	**162.8**	**148.3**	**181.6**	**16.8 %**	**7.3 %**	**180.6**	**24.9 %**	**9.3 %**	**8.3 %**								
Rare Hematology	**72.2**	**69.4**	**70.0**	**72.1**	**79.1**	**9.6 %**	**0.7 %**	**76.6**	**10.4 %**	**(3.7)%**	**(1.5)%**								
ADVATE	30.7	30.6	28.0	29.2	32.1	4.7 %	(4.7) %	30.3	(1.2) %	(14.2) %	(9.4) %								
ADYNOVATE/ADYNOVI	15.4	14.6	15.9	14.9	17.5	13.9 %	4.8 %	16.9	15.7 %	3.1 %	4.0 %								
FEIBA *3	11.4	8.8	8.8	10.2	10.5	(7.6) %	(12.3) %	10.8	22.7 %	7.8 %	(3.6) %								
RECOMBINATE	3.7	2.6	3.3	2.7	3.2	(12.7) %	(24.1) %	3.0	13.2 %	(7.7) %	(17.3) %								
HEMOFIL/IMMUNATE/ IMMUNINE*3	3.3	5.1	5.2	4.2	5.4	63.9 %	53.9 %	5.3	3.3 %	(5.4) %	17.9 %								
Other PDT Products *3	0.9	1.1	1.1	0.9	1.1	31.8 %	25.1 %	1.0	(7.4) %	(15.4) %	2.6 %								
Others	6.9	6.6	7.7	10.1	9.2	33.3 %	21.3 %	9.5	43.0 %	19.4 %	20.4 %								
Rare Genetics and Other	**83.3**	**75.2**	**92.8**	**76.2**	**102.5**	**23.1 %**	**13.1 %**	**104.0**	**38.3 %**	**21.3 %**	**17.0 %**								
TAKHZYRO	25.5	22.1	30.9	24.8	34.0	33.7 %	18.7 %	38.8	75.8 %	46.1 %	31.4 %								
ELAPRASE	18.6	16.2	22.9	15.4	22.2	19.3 %	12.0 %	20.2	24.7 %	14.4 %	13.1 %								
REPLAGAL	14.1	11.9	13.6	12.1	17.6	25.3 %	21.5 %	16.7	40.6 %	34.6 %	27.5 %								
VPRIV	10.5	10.5	11.2	10.2	11.9	13.5 %	4.3 %	11.5	8.9 %	(3.7) %	0.3 %								
FIRAZYR	6.9	7.5	7.1	5.2	6.8	(1.7) %	(11.5) %	6.6	(11.5) %	(24.5) %	(18.3) %								
CINRYZE *3	5.6	4.6	4.5	4.6	4.7	(16.7) %	(24.8) %	4.9	6.0 %	(10.1) %	(18.2) %								
LIVTENCITY	—	—	0.2	1.1	2.2	-	-	2.0	-	-	-								
Others	2.2	2.4	2.4	2.6	3.2	42.0 %	30.4 %	3.3	36.6 %	18.5 %	24.2 %								

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

*2 Generic name: pantoprazole

*3 PDT products

Refer to "*Financial Appendix*" for the definition and reconciliations of core financial measures and CER (Constant Exchange Rate).

(Bn JPY)	FY21 Reported				FY22 Reported & Core CER Change													
					YOY			YOY				YOY				YOY			
	Q1	Q2	Q3	Q4	Q1	Reported (QTD)	Core@CER (QTD)	Q2	Reported (QTD)	Core@CER (QTD)	Core@CER (YTD)	Q3	Reported (QTD)	Core@CER (QTD)	Core@CER (YTD)	Q4	Reported (QTD)	Core@CER (QTD)	Core@CER (YTD)
PDT Immunology	**107.2**	**130.8**	**125.2**	**143.7**	**141.9**	**32.3 %**	**18.0 %**	**172.1**	**31.6 %**	**11.1 %**	**14.2 %**								
immunoglobulin *1	81.6	99.7	97.0	107.6	111.8	37.0 %	22.1 %	133.2	33.6 %	12.7 %	16.9 %								
albumin *1	17.8	24.0	19.7	28.5	22.0	23.8 %	10.5 %	29.8	24.1 %	5.9 %	7.8 %								
Others *1	7.8	7.1	8.5	7.6	8.0	2.8 %	(8.3)%	9.1	27.6 %	6.6 %	(1.2)%								
Oncology	**121.4**	**112.3**	**125.4**	**109.6**	**117.5**	**(3.2)%**	**(10.1)%**	**107.8**	**(4.0)%**	**(13.1)%**	**(11.5)%**								
VELCADE	30.1	25.0	29.3	25.6	16.5	(45.3)%	(52.2)%	4.3	(82.6)%	(85.9)%	(67.5)%								
LEUPLIN/ENANTONE	26.2	27.6	28.4	24.2	28.0	6.8 %	2.8 %	25.7	(7.1)%	(12.5)%	(5.1)%								
NINLARO	24.4	21.4	24.9	20.5	23.7	(2.6)%	(12.8)%	25.1	17.0 %	(0.8)%	(7.2)%								
ADCETRIS	17.2	16.9	17.6	17.4	20.0	15.9 %	10.5 %	21.8	28.6 %	20.5 %	15.5 %								
ICLUSIG	10.4	7.5	8.8	8.2	11.3	8.6 %	(4.1)%	12.0	59.6 %	34.5 %	12.1 %								
VECTIBIX	6.2	6.6	6.6	5.3	6.7	8.4 %	8.4 %	6.6	(0.2)%	(0.2)%	4.0 %								
ALUNBRIG	3.1	3.1	3.9	3.5	4.5	45.9 %	34.7 %	5.2	65.3 %	46.8 %	40.8 %								
ZEJULA	1.6	1.8	2.4	2.2	3.0	94.0 %	92.2 %	3.3	86.0 %	83.5 %	87.5 %								
CABOMETYX	1.6	1.5	1.8	1.6	2.1	34.3 %	34.3 %	1.9	34.0 %	34.0 %	34.2 %								
EXKIVITY	—	0.2	0.2	0.5	0.7	-	-	0.7	212.2 %	153.6 %	409.6 %								
Others	0.6	0.7	1.4	0.6	1.0	47.7 %	44.0 %	1.3	85.9 %	77.8 %	61.3 %								
Neuroscience	**113.4**	**120.3**	**128.9**	**119.7**	**142.4**	**25.6 %**	**10.7 %**	**159.9**	**32.9 %**	**10.4 %**	**10.6 %**								
VYVANSE/ELVANSE	79.2	80.1	85.7	82.1	100.0	26.2 %	10.3 %	111.3	39.0 %	14.2 %	12.3 %								
TRINTELLIX	17.9	22.2	23.0	19.3	21.4	20.0 %	5.2 %	28.4	27.9 %	4.9 %	5.1 %								
INTUNIV	3.3	4.2	5.0	6.4	5.1	57.3 %	49.1 %	5.3	26.5 %	16.6 %	30.7 %								
ADDERALL XR	3.9	5.7	6.3	4.9	6.2	56.4 %	33.9 %	6.3	11.8 %	(9.9)%	8.0 %								
ROZEREM	3.2	3.1	3.1	2.2	3.3	2.9 %	2.5 %	3.2	3.5 %	3.1 %	2.8 %								
Others	5.9	5.1	5.7	4.7	6.4	8.4 %	1.0 %	5.4	6.2 %	(3.6)%	(1.1)%								
Others *2	**241.6**	**118.2**	**122.3**	**142.0**	**118.7**	**(50.9)%**	**4.8 %**	**105.9**	**(10.4)%**	**(16.8)%**	**(6.5)%**								
AZILVA *3	22.6	17.7	19.7	16.2	19.6	(13.6)%	(13.6)%	17.6	(0.4)%	(0.4)%	(7.8)%								
LOTRIGA	7.8	8.2	8.7	7.9	8.4	7.5 %	7.5 %	2.1	(74.6)%	(74.6)%	(34.6)%								
FOSRENOL	3.4	3.6	3.2	3.4	4.2	24.9 %	16.3 %	3.3	(8.6)%	(17.0)%	(1.0)%								
ACTOVEGIN	3.2	3.5	4.3	2.4	3.2	(1.1)%	(16.6)%	4.4	27.7 %	(9.3)%	(12.8)%								

*1 PDT products

*2 The 133.0 billion JPY selling price of the sale of diabetes portfolio in Japan is included in FY21Q1 Reported.

*3 The figures include the amounts of fixed dose combinations.

Refer to "*Financial Appendix*" for the definition and reconciliations of core financial measures and CER (Constant Exchange Rate).

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Product Forecasts

(Bn JPY)	FY21 Reported	Disclosed on May 11, 2022				Disclosed on October 27, 2022			
		FY22 Reported Forecasts			FY22 Core CER Forecasts	FY22 Reported Forecasts			FY22 Core CER Forecasts
	Annual	Annual	YOY			Annual	YOY		
GI	**875.7**			**Mid-teen growth**	**Low-teen growth**			**Mid-twenties growth**	**Low-teen growth**
ENTYVIO	521.8	659.0	137.2	26 %	20 %	721.0	199.2	38 %	20 %
TAKECAB/VOCINTI *1	102.4	112.0	9.6	9 %	9 %	114.0	11.6	11 %	9 %
GATTEX/REVESTIVE	75.8	91.0	15.2	20 %	15 %	100.0	24.2	32 %	15 %
DEXILANT	50.8	40.0	(10.8)	(21)%	(26)%	52.0	1.2	2 %	(13)%
PANTOLOC/CONTROLOC*2	40.3	40.0	(0.3)	(1)%	(3)%	41.0	0.7	2 %	(3)%
LIALDA/MEZAVANT	26.5	23.0	(3.5)	(13)%	(15)%	25.0	(1.5)	(6)%	(15)%
PENTASA	20.2	17.0	(3.2)	(16)%	(21)%	6.0	(14.2)	(70)%	(74)%
RESOLOR/MOTEGRITY	13.0	14.0	1.0	8 %	4 %	16.0	3.0	23 %	4 %
ALOFISEL	1.8	4.0	2.2	117 %	102 %	4.0	2.2	117 %	102 %
Others	23.2			-25% to -20%	-30% to -25%			-25% to -20%	-30% to -25%
Rare Diseases	**611.2**								
Rare Hematology	**283.7**			**Low-single-digit growth**	**Low-single-digit decrease**			**Low-teen growth**	**Low-single-digit decrease**
ADVATE	118.5	173.0	(6.2)	(3)%	(8)%	187.0	7.8	4 %	(8)%
ADYNOVATE/ADYNOVI	60.7								
FEIBA *3	39.2	38.0	(1.2)	(3)%	(7)%	41.0	1.8	5 %	(7)%
RECOMBINATE	12.3	13.0	0.7	6 %	4 %	15.0	2.7	22 %	4 %
HEMOFIL/IMMUNATE/IMMUNINE*3	17.7	19.0	1.3	7 %	4 %	21.0	3.3	18 %	4 %
Other PDT Products *3	3.9	4.0	0.1	2 %	4 %	4.0	0.1	2 %	4 %
Others	31.4			+25% to +30%	+20% to +25%			+>30%	+20% to +25%
Rare Genetics and Other	**327.5**			**Low-teen growth**	**High-single-digit growth**			**High-teen growth**	**High-single-digit growth**
TAKHZYRO	103.2	125.0	21.8	21 %	15 %	137.0	33.8	33 %	15 %
ELAPRASE	73.1	77.0	3.9	5 %	4 %	84.0	10.9	15 %	4 %
REPLAGAL	51.7	68.0	16.3	31 %	30 %	71.0	19.3	37 %	30 %
VPRIV	42.4	46.0	3.6	8 %	6 %	50.0	7.6	18 %	6 %
FIRAZYR	26.7	21.0	(5.7)	(21)%	(25)%	23.0	(3.7)	(14)%	(25)%
CINRYZE *3	19.3	13.0	(6.3)	(33)%	(37)%	13.0	(6.3)	(33)%	(37)%
LIVTENCITY	1.3			+>200%	+>200%			+>200%	+>200%
Others	9.7			-20% to -10%	-30% to -20%			-20% to -10%	-30% to -20%

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

*2 Generic name: pantoprazole

*3 PDT products

Average FX rates for FY21: 1 USD = 112 JPY, 1 Euro = 131 JPY, 1 RUB = 1.5 JPY, 1 BRL = 20.9 JPY, 1 CNY = 17.4 JPY

Assumption of FX rates for FY22 Reported Forecasts (Disclosed on May 11, 2022) : 1 USD = 119 JPY, 1 Euro = 133 JPY, 1 RUB = 1.3 JPY, 1 BRL = 24.0 JPY, 1 CNY = 18.8 JPY

Assumption of FX rates for FY22 Reported Forecasts (Disclosed on October 27, 2022) : 1 USD = 132 JPY, 1 Euro = 138 JPY, 1 RUB = 2.1 JPY, 1 BRL = 26.4 JPY, 1 CNY = 19.8 JPY

Refer to "*Financial Appendix*" for the definition and reconciliations of core financial measures and CER (Constant Exchange Rate).

(Bn JPY)	FY21 Reported	Disclosed on May 11, 2022				Disclosed on October 27, 2022			
		FY22 Reported Forecasts			FY22 Core CER Forecasts	FY22 Reported Forecasts			FY22 Core CER Forecasts
	Annual	Annual	YOY			Annual	YOY		
PDT Immunology	**507.0**			**+20% to +30%**	**+10% to +20%**			**+30% to +40%**	**+10% to +20%**
immunoglobulin *1	385.9			+20% to +30%	+10% to +20%			+30% to +40%	+10% to +20%
albumin *1	90.0			+20% to +30%	+10% to +20%			+30% to +40%	+10% to +20%
Others *1	31.1			0% to +10%	0% to +10%			10% to +20%	0% to +10%
Oncology	**468.7**			**Low-single-digit decrease**	**Mid-single-digit decrease**			**Low-single-digit decrease**	**Approx. 10% decrease**
VELCADE	110.0	47.0	(63.0)	(57)%	(61)%	28.0	(82.0)	(75)%	(79)%
LEUPLIN/ENANTONE	106.5	106.0	(0.5)	(0)%	(3)%	116.0	9.5	9 %	4 %
NINLARO	91.2	103.0	11.8	13 %	8 %	104.0	12.8	14 %	0 %
ADCETRIS	69.2	75.0	5.8	8 %	7 %	81.0	11.8	17 %	7 %
ICLUSIG	34.9	41.0	6.1	18 %	10 %	45.0	10.1	29 %	10 %
VECTIBIX	24.7	24.0	(0.7)	(3)%	(3)%	24.0	(0.7)	(3)%	(3)%
ALUNBRIG	13.6	26.0	12.4	91 %	85 %	28.0	14.4	105 %	85 %
ZEJULA	8.0	12.0	4.0	50 %	50 %	12.0	4.0	50 %	50 %
CABOMETYX	6.4	8.0	1.6	26 %	26 %	8.0	1.6	26 %	26 %
EXKIVITY	1.0			+>300%	+>300%			+>300%	+>300%
Others	3.3			+>30%	+>30%			+>30%	+>30%
Neuroscience	**482.3**			**High-single-digit growth**	**Low-single-digit growth**			**Mid-twenties growth**	**High-single-digit growth**
VYVANSE/ELVANSE	327.1	372.0	44.9	14 %	7 %	436.0	108.9	33 %	14 %
TRINTELLIX	82.3	95.0	12.7	15 %	9 %	105.0	22.7	28 %	9 %
INTUNIV	18.9	19.0	0.1	0 %	(4)%	19.0	0.1	0 %	(4)%
ADDERALL XR	20.9	9.0	(11.9)	(57)%	(59)%	17.0	(3.9)	(19)%	(32)%
ROZEREM	11.7	8.0	(3.7)	(31)%	(30)%	8.0	(3.7)	(31)%	(30)%
Others	21.4			-10% to -5%	-10% to -5%			-5% to 0%	-10% to -5%
Others	**624.1**			**->30%**	**-20% to -10%**			**->30%**	**-20% to -10%**
AZILVA *2	76.3	73.0	(3.3)	(4)%	(4)%	73.0	(3.3)	(4)%	(4)%
LOTRIGA	32.7	13.0	(19.7)	(60)%	(60)%	13.0	(19.7)	(60)%	(60)%
FOSRENOL	13.6	11.0	(2.6)	(19)%	(20)%	12.0	(1.6)	(12)%	(20)%
ACTOVEGIN	13.4	12.0	(1.4)	(11)%	(3)%	16.0	2.6	19 %	(3)%

*1 PDT products

*2 The figures include the amounts of fixed dose combinations.

Average FX rates for FY21: 1 USD = 112 JPY, 1 Euro = 131 JPY, 1 RUB = 1.5 JPY, 1 BRL = 20.9 JPY, 1 CNY = 17.4 JPY

Assumption of FX rates for FY22 Reported Forecasts (Disclosed on May 11, 2022) : 1 USD = 119 JPY, 1 Euro = 133 JPY, 1 RUB = 1.3 JPY, 1 BRL = 24.0 JPY, 1 CNY = 18.8 JPY

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Refer to "*Financial Appendix*" for the definition and reconciliations of core financial measures and CER (Constant Exchange Rate).

FINANCIAL APPENDIX

Definition of Core Financial Measures, Constant Exchange Rate change, and Free Cash Flow

Core Revenue represents revenue adjusted to exclude significant items unrelated to Takeda's core operations.

Core Operating Profit represents net profit adjusted to exclude income tax expenses, the share of profit or loss of investments accounted for using the equity method, finance expenses and income, other operating expenses and income, amortization and impairment losses on acquired intangible assets and other items unrelated to Takeda's core operations, such as non-recurring items, purchase accounting effects and transaction related costs.

Core EPS represents net profit adjusted to exclude the impact of items excluded in the calculation of Core Operating Profit, and other non-operating items (e.g. amongst other items, fair value adjustments and the imputed financial charge related to contingent consideration) that are unusual, non-recurring in nature or unrelated to Takeda's ongoing operations and the tax effect of each of the adjustments, divided by the average outstanding shares (excluding treasury shares) of the reporting periods presented.

CER (Constant Exchange Rate) change eliminates the effect of foreign exchange rates from year-over-year comparisons by translating Reported or Core results for the current period using corresponding exchange rates in the same period of the previous fiscal year.

We present **Free Cash Flow** because we believe that this measure is useful to investors as similar measures of liquidity are frequently used by securities analysts, investors and other interested parties in the evaluation of companies in our industry. Free Cash Flow is also used by our management to evaluate our liquidity and our cash flows, particularly as they relate to our ability to meet our liquidity requirements and to support our capital allocation policies. We also believe that Free Cash Flow is helpful to investors in understanding how our strategic divestitures of non-core businesses and of portions of our investment portfolio contribute to the cash flows and liquidity available to us.

We define Free Cash Flow as cash flows from operating activities, subtracting acquisition of property, plant and equipment ("PP&E"), intangible assets and investments as well as removing any other cash that is not available to Takeda's immediate or general business use, and adding proceeds from sales of PP&E, as well as from sales of investments and businesses, net of cash and cash equivalents divested.

The usefulness of Free Cash Flow to investors has significant limitations including, but not limited to, (i) it may not be comparable to similarly titled measures used by other companies, including those in our industry, (ii) it does not reflect the effect of our current and future contractual and other commitments requiring the use or allocation of capital and (iii) the addition of proceeds from sales and redemption of investments and the proceeds from sales of business, net of cash and cash equivalents divested do not reflect cash received from our core ongoing operations. Free Cash Flow should not be considered in isolation and is not, and should not be viewed as, a substitute for cash flows from operating activities or any other measure of liquidity presented in accordance with IFRS. The most directly comparable measure under IFRS for Free Cash Flow is net cash from operating activities.

Definition of EBITDA/Adjusted EBITDA and Net Debt

We present **EBITDA and Adjusted EBITDA** because we believe that these measures are useful to investors as they are frequently used by securities analysts, investors and other interested parties in the evaluation of companies in our industry. We further believe that Adjusted EBITDA is helpful to investors in identifying trends in its business that could otherwise be obscured by certain items unrelated to ongoing operations because they are highly variable, difficult to predict, may substantially impact our results of operations and may limit the ability to evaluate our performance from one period to another on a consistent basis.

EBITDA and Adjusted EBITDA should not be considered in isolation or construed as alternatives to operating income, net profit for the year or any other measure of performance presented in accordance with IFRS. These non-IFRS measures may not be comparable to similarly-titled measures presented by other companies.

The usefulness of EBITDA and Adjusted EBITDA to investors has limitations including, but not limited to, (i) they may not be comparable to similarly titled measures used by other companies, including those in our industry, (ii) they exclude financial information and events, such as the effects of an acquisition or amortization of intangible assets, that some may consider important in evaluating our performance, value or prospects for the future, (iii) they exclude items or types of items that may continue to occur from period to period in the future and (iv) they may not exclude all items which investors may consider to be unrelated to our long-term operations. These non-IFRS measures are not, and should not be viewed as, substitutes for IFRS reported net income (loss). We encourage investors to review our historical financial statements in their entirety and caution investors to IFRS measures as the primary means of evaluating our performance, value and prospects for the future, and EBITDA and Adjusted EBITDA as supplemental measures.

We define EBITDA as consolidated net profit before income tax expenses, depreciation and amortization and net interest expense. We define Adjusted EBITDA as EBITDA further adjusted to exclude impairment losses, other operating expenses and income (excluding depreciation and amortization), finance expenses and income (excluding net interest expense), our share of loss from investments accounted for under the equity method and other items that management believes are unrelated to our core operations such as purchase accounting effects and transaction related costs.

The most closely comparable measure presented in accordance with IFRS is net profit for the year. Please refer to Net Profit to Adjusted EBITDA Bridge for a reconciliation to the respective most closely comparable measures presented in accordance with IFRS.

We present **Net Debt** because we believe that it is useful to investors in that our management uses it to monitor and evaluate our indebtedness, net of cash and cash equivalents, and, in conjunction with Adjusted EBITDA, to monitor our leverage. We also believe that similar measures of indebtedness are frequently used by securities analysts, investors and other interested parties in the evaluation of companies in our industry.

We define Net Debt first by calculating the sum of the current and non-current portions of bonds and loans as shown on our consolidated statement of financial position, which is then adjusted to reflect (i) the use of prior 12-month average exchange rates for non-JPY debt outstanding at the beginning of the period and the use of relevant spot rates for new non-JPY debt incurred and existing non-JPY debt redeemed during the reporting period, which reflects the methodology our management uses to monitor our leverage, and (ii) a 50% equity credit applied to our aggregate principal amount of 500.0 billion hybrid (subordinated) bonds issued in June 2019 by S&P Global Rating Japan in recognition of the equity-like features of those bonds pursuant to such agency's ratings methodology. From this figure, we deduct cash and cash equivalents, excluding cash that is temporarily held by Takeda on behalf of third parties related to vaccine operations and the trade receivables sales program, to calculate Net Debt.

The usefulness of Net Debt to investors has significant limitations including, but not limited to, (i) it may not be comparable to similarly titled measures used by other companies, including those in our industry, (ii) it does not reflect the amounts of interest payments to be paid on our indebtedness, (iii) it does not reflect any restrictions on our ability to prepay or redeem any of our indebtedness, (iv) it does not reflect any fees, costs or other expenses that we may incur in converting cash equivalents to cash, in converting cash from one currency into another or in moving cash within our consolidated group, (v) it applies to gross debt an adjustment for average foreign exchange rates which, although consistent with our financing agreements, does not reflect the actual rates at which we would be able to convert one currency into another and (vi) it reflects an equity credit due to the fact that the amounts of our subordinated bonds, although we believe it to be reasonable, do not affect the status of those instruments as indebtedness. Net Debt should not be considered in isolation and are not, and should not be viewed as, a substitute for bonds and loans or any other measure of indebtedness presented in accordance with IFRS.

The most directly comparable measures under IFRS for Net Debt is bonds and loans. Please refer to Net Debt to Adjusted EBITDA for a reconciliation to this measure.

FY2022 H1 Reported Results with Actual and CER % Change

(Billion JPY)	FY2021 H1	FY2022 H1	vs. PY		
				ACTUAL % CHANGE	CER % CHANGE*1
Revenue	1,794.4	1,974.8	180.3	10.1%	(2.3)%
Cost of sales	(517.1)	(598.3)	(81.3)	(15.7)%	(3.9)%
Gross profit	1,277.4	1,376.4	99.1	7.8%	(4.8)%
Margin	*71.2 %*	*69.7 %*		*(1.5) pp*	*(1.8) pp*
SG&A expenses	(431.9)	(480.2)	(48.4)	(11.2)%	1.4%
R&D expenses	(254.1)	(297.8)	(43.7)	(17.2)%	(1.4)%
Amortization of intangible assets associated with products	(204.1)	(240.8)	(36.7)	(18.0)%	(1.1)%
Impairment losses on intangible assets associated with products	(1.5)	(32.8)	(31.4)	(2,137.8)%	(1,695.6)%
Other operating income	19.5	13.5	(6.1)	(31.0)%	(36.9)%
Other operating expenses	(59.4)	(83.4)	(23.9)	(40.2)%	(22.0)%
Operating profit	346.0	255.0	(91.0)	(26.3)%	(30.7)%
Margin	*19.3 %*	*12.9 %*		*(6.4) pp*	*(5.6) pp*
Finance income	46.9	75.7	28.8	61.4%	55.6%
Finance expenses	(104.9)	(109.3)	(4.3)	(4.1)%	(5.4)%
Share of profit (loss) of investments accounted for using the equity method	(3.5)	(1.4)	2.2	61.3%	76.7%
Profit before tax	284.4	220.0	(64.4)	(22.6)%	(29.2)%
Income tax expenses	(100.7)	(53.3)	47.4	47.1%	44.1%
Net profit for the period	183.7	166.8	(17.0)	(9.2)%	(21.1)%
Non-controlling interests	(0.1)	0.0	0.1	—	—
Net profit attributable to owners of the Company	183.6	166.8	(16.9)	(9.2)%	(21.0)%
Basic EPS (yen)	117.08	107.62	(9.46)	(8.1)%	(20.1)%

*1 Please refer to A-1 Definition of Core Financial Measures, Constant Exchange Rate change, and Free Cash Flow, for the definition.

Note: % change versus prior year is presented as positive when favorable to profits, and negative when unfavorable to profits.

FY2022 Q2 (Jul-Sep) Reported Results with Actual and CER % Change

(Billion JPY)	FY2021 Q2 (Jul-Sep)	FY2022 Q2 (Jul-Sep)	vs. PY		
				ACTUAL % CHANGE	CER % CHANGE*1
Revenue	844.8	1,002.3	157.5	18.6%	2.8%
Cost of sales	(275.8)	(305.4)	(29.6)	(10.7)%	2.6%
Gross profit	569.0	696.9	127.8	22.5%	5.4%
Margin	*67.4 %*	*69.5 %*		*2.2 pp*	*1.7 pp*
SG&A expenses	(212.0)	(248.7)	(36.7)	(17.3)%	(1.8)%
R&D expenses	(131.6)	(154.1)	(22.5)	(17.1)%	1.4%
Amortization of intangible assets associated with products	(101.3)	(123.8)	(22.5)	(22.2)%	—
Impairment losses on intangible assets associated with products	(1.5)	(18.6)	(17.1)	(1,167.4)%	—
Other operating income	8.4	8.0	(0.4)	(5.0)%	(16.3)%
Other operating expenses	(33.7)	(55.2)	(21.5)	(63.8)%	(43.7)%
Operating profit	97.4	104.4	7.0	7.2%	(1.3)%
Margin	*11.5 %*	*10.4 %*		*(1.1) pp*	*(0.5) pp*
Finance income	6.9	14.8	7.9	115.4%	96.4%
Finance expenses	(39.7)	(53.8)	(14.1)	(35.6)%	(40.5)%
Share of profit (loss) of investments accounted for using the equity method	(3.2)	(0.9)	2.3	72.6%	85.1%
Profit before tax	61.4	64.5	3.1	5.0%	(13.1)%
Income tax expenses	(15.5)	(2.8)	12.6	(81.8)%	(57.2)%
Net profit for the period	46.0	61.7	15.7	34.2%	1.7%
Non-controlling interests	(0.0)	0.0	0.0	—	—
Net profit attributable to owners of the Company	46.0	61.7	15.8	34.3%	1.8%
Basic EPS (yen)	29.24	39.77	10.53	36.0%	3.1%

*1 Please refer to A-1 Definition of Core Financial Measures, Constant Exchange Rate change, and Free Cash Flow, for the definition.

Note: % change versus prior year is presented as positive when favorable to profits, and negative when unfavorable to profits.

FY2022 H1 Core Results with Actual and CER % Change

(Billion JPY)	FY2021 H1	FY2022 H1		vs. PY	
				ACTUAL % CHANGE	CER % CHANGE*1
Revenue	1,661.4	1,974.8	313.4	18.9%	5.5%
Cost of sales	(494.1)	(571.6)	(77.4)	(15.7)%	(4.0)%
Gross profit	1,167.2	1,403.2	236.0	20.2%	6.2%
Margin	*70.3 %*	*71.1 %*		*0.8 pp*	*0.4 pp*
SG&A expenses	(428.7)	(480.5)	(51.8)	(12.1)%	0.6%
R&D expenses	(252.8)	(297.5)	(44.7)	(17.7)%	(1.8)%
Operating profit	485.7	625.2	139.4	28.7%	14.5%
Margin	*29.2 %*	*31.7 %*		*2.4 pp*	*2.5 pp*
Finance income	31.7	32.6	0.9	2.9%	2.5%
Finance expenses	(90.1)	(100.8)	(10.7)	(11.9)%	(14.6)%
Share of profit (loss) of investments accounted for using the equity method	2.8	2.7	(0.2)	(6.1)%	(5.6)%
Profit before tax	430.1	559.6	129.5	30.1%	13.4%
Income tax expenses	(94.2)	(112.9)	(18.7)	(19.9)%	(10.0)%
Net profit for the period	335.9	446.7	110.7	33.0%	14.4%
Non-controlling interests	(0.1)	0.0	0.1	—	—
Net profit attributable to owners of the Company	335.9	446.7	110.8	33.0%	14.4%
Basic EPS (yen)	214	288	74	34.6%	15.8%

*1 Please refer to A-1 Definition of Core Financial Measures, Constant Exchange Rate change, and Free Cash Flow, for the definition.

Note: % change versus prior year is presented as positive when favorable to profits, and negative when unfavorable to profits.

FY2022 Q2 (Jul-Sep) Core Results with Actual and CER % Change

(Billion JPY)	FY2021 Q2 (Jul-Sep)	FY2022 Q2 (Jul-Sep)	vs. PY		
				ACTUAL % CHANGE	CER % CHANGE*1
Revenue	844.8	1,002.3	157.5	18.6%	2.8%
Cost of sales	(266.3)	(293.3)	(27.1)	(10.2)%	2.9%
Gross profit	578.5	709.0	130.4	22.5%	5.5%
Margin	*68.5 %*	*70.7 %*		*2.3 pp*	*1.8 pp*
SG&A expenses	(210.8)	(248.8)	(38.1)	(18.1)%	(2.4)%
R&D expenses	(131.0)	(154.0)	(23.0)	(17.6)%	1.1%
Operating profit	236.8	306.1	69.3	29.3%	11.8%
Margin	*28.0 %*	*30.5 %*		*2.5 pp*	*2.4 pp*
Finance income	2.3	8.9	6.6	290.7%	286.1%
Finance expenses	(33.0)	(50.0)	(17.0)	(51.5)%	(59.0)%
Share of profit (loss) of investments accounted for using the equity method	0.9	1.7	0.8	93.3%	89.9%
Profit before tax	206.9	266.7	59.8	28.9%	7.6%
Income tax expenses	(47.6)	(44.2)	3.5	7.3%	15.3%
Net profit for the period	159.3	222.5	63.2	39.7%	14.5%
Non-controlling interests	(0.0)	0.0	0.0	—	—
Net profit attributable to owners of the Company	159.3	222.5	63.3	39.7%	14.5%
Basic EPS (yen)	101	143	42	41.5%	15.9%

*1 Please refer to A-1 Definition of Core Financial Measures, Constant Exchange Rate change, and Free Cash Flow, for the definition.

Note: % change versus prior year is presented as positive when favorable to profits, and negative when unfavorable to profits.

FY2022 H1 Reconciliation from Reported to Core

(Billion JPY)	REPORTED	REPORTED TO CORE ADJUSTMENTS				CORE
		Amortization of intangible assets	Impairment of intangible assets	Other operating income/ expenses	Others	
Revenue	1,974.8					1,974.8
Cost of sales	(598.3)				26.8	(571.6)
Gross profit	1,376.4				26.8	1,403.2
SG&A expenses	(480.2)				(0.3)	(480.5)
R&D expenses	(297.8)				0.3	(297.5)
Amortization of intangible assets associated with products	(240.8)	240.8				—
Impairment losses on intangible assets associated with products	(32.8)		32.8			—
Other operating income	13.5			(13.5)		—
Other operating expenses	(83.4)			83.4		—
Operating profit	255.0	240.8	32.8	69.9	26.7	625.2
Margin	12.9 %					31.7%
Finance income and (expenses), net	(33.6)				(34.7)	(68.3)
Share of profit (loss) of investments accounted for using the equity method	(1.4)				4.0	2.7
Profit before tax	220.0	240.8	32.8	69.9	(4.0)	559.6
Tax expenses	(53.3)	(51.5)	(7.0)	(13.1)	12.0	(112.9)
Non-controlling interests	0.0					0.0
Net profit attributable to owners of the Company	166.8	189.3	25.8	56.8	8.0	446.7
EPS (yen)	108					288
Number of shares (millions)	1,549					1,549

FY2022 Q2 (Jul-Sep) Reconciliation from Reported to Core

(Billion JPY)	REPORTED	REPORTED TO CORE ADJUSTMENTS				CORE
		Amortization of intangible assets	Impairment of intangible assets	Other operating income/ expenses	Others	
Revenue	1,002.3					1,002.3
Cost of sales	(305.4)				12.1	(293.3)
Gross profit	696.9				12.1	709.0
SG&A expenses	(248.7)				(0.1)	(248.8)
R&D expenses	(154.1)				0.2	(154.0)
Amortization of intangible assets associated with products	(123.8)	123.8				—
Impairment losses on intangible assets associated with products	(18.6)		18.6			—
Other operating income	8.0			(8.0)		—
Other operating expenses	(55.2)			55.2		—
Operating profit	104.4	123.8	18.6	47.2	12.1	306.1
Margin	10.4 %					30.5%
Finance income and (expenses), net	(39.0)				(2.1)	(41.1)
Share of profit (loss) of investments accounted for using the equity method	(0.9)				2.6	1.7
Profit before tax	64.5	123.8	18.6	47.2	12.6	266.7
Tax expenses	(2.8)	(26.5)	(3.9)	(9.1)	(1.9)	(44.2)
Non-controlling interests	0.0					0.0
Net profit attributable to owners of the Company	61.7	97.3	14.7	38.0	10.7	222.5
EPS (yen)	40					143
Number of shares (millions)	1,552					1,552

FY2021 H1 Reconciliation from Reported to Core

(Billion JPY)	REPORTED	REPORTED TO CORE ADJUSTMENTS						CORE
		Amortization of intangible assets	Impairment of intangible assets	Other operating income/ expenses	Sale of Japan diabetes portfolio	Irish Tax Assessment *1	Others	
Revenue	1,794.4				(133.0)			1,661.4
Cost of sales	(517.1)				0.6		22.3	(494.1)
Gross profit	1,277.4				(132.4)		22.3	1,167.2
SG&A expenses	(431.9)				1.0		2.1	(428.7)
R&D expenses	(254.1)						1.3	(252.8)
Amortization of intangible assets associated with products	(204.1)	204.1						—
Impairment losses on intangible assets associated with products	(1.5)		1.5					—
Other operating income	19.5			(18.8)			(0.7)	—
Other operating expenses	(59.4)			59.4				—
Operating profit	346.0	204.1	1.5	40.6	(131.4)		25.0	485.7
Margin	19.3 %							29.2%
Finance income and (expenses), net	(58.0)						(0.4)	(58.5)
Share of profit (loss) of investments accounted for using the equity method	(3.5)						6.4	2.8
Profit before tax	284.4	204.1	1.5	40.6	(131.4)		31.0	430.1
Tax expenses	(100.7)	(45.5)	(0.5)	(11.5)	40.2	63.7	(39.9)	(94.2)
Non-controlling interests	(0.1)							(0.1)
Net profit attributable to owners of the Company	183.6	158.6	0.9	29.2	(91.2)	63.7	(9.0)	335.9
EPS (yen)	117							214
Number of shares (millions)	1,568							1,568

*1 Tax charges of 63.7 billion JPY arising from the tax assessment involving Irish taxation of the break fee Shire received from AbbVie in connection with the terminated offer to acquire Shire made by AbbVie in 2014, net of 0.5 billion JPY of associated tax benefit.

FY2021 Q2 (Jul-Sep) Reconciliation from Reported to Core

(Billion JPY)	REPORTED	REPORTED TO CORE ADJUSTMENTS						CORE
		Amortization of intangible assets	Impairment of intangible assets	Other operating income/ expenses	Sale of Japan diabetes portfolio	Irish Tax Assessment *1	Others	
Revenue	844.8							844.8
Cost of sales	(275.8)						9.5	(266.3)
Gross profit	569.0						9.5	578.5
SG&A expenses	(212.0)						1.2	(210.8)
R&D expenses	(131.6)						0.6	(131.0)
Amortization of intangible assets associated with products	(101.3)	101.3						—
Impairment losses on intangible assets associated with products	(1.5)		1.5					—
Other operating income	8.4			(8.1)			(0.4)	—
Other operating expenses	(33.7)			34.4			(0.7)	—
Operating profit	97.4	101.3	1.5	26.3			10.3	236.8
Margin	11.5 %							28.0%
Finance income and (expenses), net	(32.8)						2.1	(30.7)
Share of profit (loss) of investments accounted for using the equity method	(3.2)						4.0	0.9
Profit before tax	61.4	101.3	1.5	26.3			16.4	206.9
Tax expenses	(15.5)	(22.6)	(0.5)	(6.7)		1.0	(3.4)	(47.6)
Non-controlling interests	(0.0)							(0.0)
Net profit attributable to owners of the Company	46.0	78.7	0.9	19.6		1.0	13.0	159.3
EPS (yen)	29							101
Number of shares (millions)	1,572							1,572

*1 Interest on tax charges arising from the tax assessment involving Irish taxation of the break fee Shire received from AbbVie in connection with the terminated offer to acquire Shire made by AbbVie in 2014.

Free Cash Flow

(Billion JPY)	FY2021 H1	FY2022 H1	Change versus the previous year	
Net profit	183.7	166.8	(17.0)	(9.2)%
Depreciation, amortization and impairment loss	285.1	362.1	77.0	
Decrease (increase) in trade working capital	(89.2)	(159.0)	(69.8)	
Income taxes paid	(78.7)	(115.4)	(36.7)	
Tax refunds and interest on tax refunds received	4.8	6.2	1.4	
Other	94.3	44.6	(49.7)	
Net cash from operating activities	400.0	305.2	(94.8)	(23.7)%
Adjustment for cash temporarily held by Takeda on behalf of third parties*1	(7.6)	116.8	124.5	
Acquisition of PP&E	(60.6)	(71.4)	(10.8)	
Proceeds from sales of PP&E	0.4	0.1	(0.3)	
Acquisition of intangible assets	(25.2)	(67.6)	(42.4)	
Acquisition of investments	(3.6)	(4.7)	(1.1)	
Proceeds from sales and redemption of investments	10.1	18.4	8.3	
Proceeds from sales of business, net of cash and cash equivalents divested	2.1	—	(2.1)	
Free Cash Flow	315.6	296.9	(18.7)	(5.9)%

*1 Adjustment refers to changes in cash balance that is temporarily held by Takeda on behalf of third parties related to vaccine operations and the trade receivables sales program.

FY2022 H1 Net Debt to Adjusted EBITDA

NET DEBT/ADJUSTED EBITDA RATIO

(Billion JPY)	FY2022 H1
Cash and cash equivalents*1	707.5
Book value debt on consolidated statements of financial position	(4,736.6)
Hybrid bond 50% equity credit	250.0
FX adjustment*2	421.1
Gross debt*3	(4,065.5)
Net cash (debt)	**(3,358.0)**
Net debt/Adjusted EBITDA ratio	**2.6 x**
Adjusted EBITDA	**1,313.1**

NET INCREASE (DECREASE) IN CASH

(Billion JPY)	FY2021 H1	FY2022 H1	Change versus the previous year	
Net cash from operating activities	400.0	305.2	(94.8)	(23.7)%
Acquisition of PP&E	(60.6)	(71.4)		
Proceeds from sales of PP&E	0.4	0.1		
Acquisition of intangible assets	(25.2)	(67.6)		
Acquisition of investments	(3.6)	(4.7)		
Proceeds from sales and redemption of investments	10.1	18.4		
Acquisition of business, net of cash and cash equivalents acquired	(27.5)	—		
Proceeds from sales of business, net of cash and cash equivalents divested	2.1	—		
Net increase (decrease) in short-term loans and commercial papers	(0.0)	—		
Repayment of long-term loans	(220.1)	(0.1)		
Proceeds from issuance of bonds	—	—		
Repayment of bonds	(220.9)	(26.8)		
Purchase of treasury shares	(2.5)	(26.9)		
Interest paid	(52.7)	(52.7)		
Dividends paid	(141.6)	(140.0)		
Others	(19.6)	(17.8)		
Net increase (decrease) in cash	(361.7)	(84.3)	277.5	(76.7)%

*1 Includes short-term investments which mature or become due within one year from the reporting date and excludes cash temporarily held by Takeda on behalf of third parties related to vaccine operations and the trade receivables sales program.

*2 FX adjustment refers to change from month-end rate to average rate used for non-JPY debt calculation outstanding at the beginning of the period to match with adjusted EBITDA (which is calculated based on average rates). New non-JPY debt incurred and existing non-JPY debt redeemed during the reporting period are translated to JPY at relevant spot rates as of the relevant date.

*3 Bonds and loans of current and non-current liabilities. 250Bn yen reduction in debt due to 500Bn yen hybrid bond issuance in June 2019, given that the hybrid bond qualifies for 50% equity credit for leverage purposes. Includes non-cash adjustments related to debt amortization and FX impact.

FY2021 Net Debt to Adjusted EBITDA

NET DEBT/ADJUSTED EBITDA RATIO

(Billion JPY)	FY2021
Cash and cash equivalents[*1]	642.2
Book value debt on consolidated statements of financial position	(4,345.4)
Hybrid bond 50% equity credit	250.0
FX adjustment[*2]	219.4
Gross debt[*3]	(3,876.0)
Net cash (debt)	**(3,233.8)**
Net debt/Adjusted EBITDA ratio	**2.8 x**
Adjusted EBITDA	**1,168.0**

NET INCREASE (DECREASE) IN CASH

(Billion JPY)	FY2020	FY2021	vs. PY	
Net cash from operating activities	1,010.9	1,123.1	112.2	11.1 %
Acquisition of PP&E	(111.2)	(123.3)		
Proceeds from sales of PP&E	46.5	1.8		
Acquisition of intangible assets	(125.3)	(62.8)		
Acquisition of investments	(12.6)	(8.3)		
Proceeds from sales and redemption of investments	74.6	16.9		
Acquisition of business, net of cash and cash equivalents acquired	—	(49.7)		
Proceeds from sales of business, net of cash and cash equivalents divested	530.4	28.2		
Net increase (decrease) in short-term loans and commercial papers	(149.0)	(0.0)		
Repayment of long-term loans	(792.5)	(414.1)		
Proceeds from issuance of bonds	1,179.5	249.3		
Repayment of bonds	(859.2)	(396.0)		
Purchase of treasury shares	(2.1)	(77.5)		
Interest paid	(107.3)	(108.2)		
Dividends paid	(283.4)	(283.7)		
Others	(83.1)	(41.1)		
Net increase (decrease) in cash	316.1	(145.3)	(461.4)	-

*1 Includes short-term investments which mature or become due within one year from the reporting date and excludes cash temporarily held by Takeda on behalf of third parties related to vaccine operations and the trade receivables sales program.

*2 FX adjustment refers to change from month-end rate to average rate used for non-JPY debt calculation outstanding at the beginning of the period to match with adjusted EBITDA (which is calculated based on average rates). New non-JPY debt incurred and existing non-JPY debt redeemed during the reporting period are translated to JPY at relevant spot rates as of the relevant date.

*3 Bonds and loans of current and non-current liabilities. 250Bn yen reduction in debt due to 500Bn yen hybrid bond issuance in June 2019, given that the hybrid bond qualifies for 50% equity credit for leverage purposes. Includes non-cash adjustments related to debt amortization and FX impact.

FY2022 H1 and FY2021 H1 Net Profit to Adjusted EBITDA Bridge

(Billion JPY)	FY2021 H1	FY2022 H1	Change versus the previous year	
Net profit	183.7	166.8	(17.0)	(9.2)%
Income tax expenses	100.7	53.3		
Depreciation and amortization	283.6	326.1		
Interest expense, net	58.9	57.5		
EBITDA	627.0	603.7	(23.3)	(3.7)%
Impairment losses	1.5	36.0		
Other operating expense (income), net, excluding depreciation and amortization and other miscellaneous expenses (non-cash item)	36.8	65.4		
Finance expense (income), net, excluding interest income and expense, net	(0.9)	(24.0)		
Share of loss on investments accounted for under the equity method	3.5	1.4		
Other adjustments:	(72.9)	55.5		
Non-core expense related to COVID-19	5.5	5.6		
Sales of Japan diabetes portfolio and other non-core product divestitures	(131.4)	—		
Impact on profit related to fair value step up of inventory in Shire acquisition	17.8	21.9		
Other costs[*1]	35.2	28.0		
Adjusted EBITDA	595.0	737.9	142.9	24.0 %

*1 Includes adjustments for non-cash equity-based compensation expense and other one time non-cash expense.

FY2022 H1 Net Profit to Adjusted EBITDA LTM Bridge

(Billion JPY)	FY2021 Full Year (Apr-Mar)	FY2021 H1 (Apr - Sep)	FY2022 H1 (Apr - Sep)	FY2022 H1 LTM*1 (Oct-Sep)
Net profit	230.2	183.7	166.8	213.2
Income tax expenses	72.4	100.7	53.3	25.0
Depreciation and amortization	583.2	283.6	326.1	625.7
Interest expense, net	117.8	58.9	57.5	116.4
EBITDA	1,003.6	627.0	603.7	980.3
Impairment losses	54.5	1.5	36.0	89.0
Other operating expense (income), net, excluding depreciation and amortization and other miscellaneous expenses (non-cash item)	106.3	36.8	65.4	134.9
Finance expense (income), net, excluding interest income and expense, net	25.1	(0.9)	(24.0)	2.0
Share of loss on investments accounted for under the equity method	15.4	3.5	1.4	13.2
Other adjustments:	(30.2)	(72.9)	55.5	98.1
Non-core expense related to COVID-19	10.4	5.5	5.6	10.4
Sale of Japan diabetes portfolio	(144.8)	(131.4)	—	(13.4)
Impact on profit related to fair value step up of inventory in Shire acquisition	31.9	17.8	21.9	35.9
Other costs*2	72.4	35.2	28.0	65.1
Adjusted EBITDA	1,174.5	595.0	737.9	1,317.4
EBITDA from divested products*3	(6.6)			(4.3)
Adjusted EBITDA (LTM)	1,168.0			1,313.1

*1 LTM represents Last Twelve Months (October 2021 - September 2022). Calculated by subtracting FY2021 H1 from FY2021 Full Year and adding FY2022 H1.

*2 Includes adjustments for non-cash equity-based compensation expense and other one time non-cash expense.

*3 Represents adjustments for EBITDA from divested products which are removed as part of LTM Adjusted EBITDA.

FX Rates and FY2022 Currency Sensitivity

Average Exchange Rates vs. JPY				Impact of depreciation of yen from October 2022 to March 2023 on FY2022 forecast (100 million JPY)				
	FY2021 Actual (Apr-Sep)	FY2022 Actual (Apr-Sep)	FY2022 Assumption (Apr-Mar)		Revenue (IFRS)	Operating Profit (IFRS)	Net Profit (IFRS)	Core Operating Profit (non-IFRS)
USD	110	131	132	1% depreciation	86.9	14.0	10.5	31.4
				1 yen depreciation	66.1	10.7	8.0	23.9
EUR	131	138	138	1% depreciation	22.0	(14.7)	(15.5)	(11.7)
				1 yen depreciation	16.0	(10.6)	(11.2)	(8.5)
RUB	1.5	2.1	2.1	1% depreciation	2.9	1.6	1.6	1.8
CNY	17.0	19.7	19.8		8.6	5.1	5.1	5.1
BRL	20.9	26.3	26.4		3.9	2.4	2.4	2.5

CAPEX, Depreciation and Amortization and Impairment Losses

(Billion JPY)	FY2021	FY2021 H1	FY2022 H1	vs. PY		FY2022 Revised Forecast (Oct 27, 2022)
Capital expenditures*1	186.0	85.8	139.0	53.2	62.0 %	260.0 to 310.0
Tangible assets	123.3	60.6	71.4	10.8	17.9 %	
Intangible assets	62.8	25.2	67.6	42.4	168.3 %	
*1 Cash flow base						
Depreciation and amortization	579.8	281.9	324.5	42.6	15.1 %	640.0
Depreciation of tangible assets*2 (A)	132.4	65.2	71.8	6.5	10.0 %	
Amortization of intangible assets (B)	447.4	216.7	252.7	36.0	16.6 %	
Of which Amortization associated with products (C)	418.8	204.1	240.8	36.7	18.0 %	480.0
Of which Amortization excluding intangible assets associated with products (D)	28.6	12.6	11.9	(0.7)	(5.6)%	
*2 Excluding depreciation from investment properties						
Depreciation and amortization (excluding intangible assets associated with products) (A)+(D)	161.0	77.8	83.7	5.8	7.5 %	160.0
Impairment losses	54.5	1.5	32.9	31.4	— %	
Impairment losses associated with products	54.1	1.5	32.8	31.4	— %	50.0
Amortization and impairment losses on intangible assets associated with products	472.9	205.5	273.6	68.1	33.1 %	530.0

FY2022 Detailed Forecast

(BN JPY)	FY2021 Actual	FY2022 Original Forecast (May 11, 2022)	FY2022 Revised Forecast (Oct 27, 2022)	FY2022 Revised Forecast % change vs. PY
Revenue	3,569.0	3,690.0	3,930.0	10.1 %
R&D expenses	(526.1)	(570.0)	(620.0)	(17.9)%
Amortization of intangible assets associated with products	(418.8)	(438.0)	(480.0)	(14.6)%
Impairment losses on intangible assets associated with products	(54.1)	(50.0)	(50.0)	7.6 %
Other operating income	43.1	12.0	13.0	(69.9)%
Other operating expenses	(159.1)	(73.0)	(100.0)	37.1 %
Operating profit	460.8	520.0	530.0	15.0 %
Finance income (expenses), net	(142.9)	(107.0)	(105.0)	26.5 %
Profit before tax	302.6	411.0	426.0	40.8 %
Net profit attributable to owners of the Company	230.1	292.0	307.0	33.4 %
Basic EPS (yen)	147	188	198	34.4 %
Core Revenue*1	3,420.5	3,690.0	3,930.0	14.9 %
Core Operating Profit*1	955.2	1,100.0	1,180.0	23.5 %
Core EPS (yen)	425	484	525	23.6 %
USD/JPY (yen)	112	119	132	18.3 %
EUR/JPY (yen)	131	133	138	5.9 %

*1 Please refer to A-1 Definition of Core Financial Measures, Constant Exchange Rate change, and Free Cash Flow, for the definition and A-20 FY2022 Full Year Reconciliation from Reported Operating Profit to Core Operating Profit Forecast, for reconciliation.

FY2022 Core Operating Profit Adjustment Items & Cash Flow Forecast

CORE OPERATING PROFIT ADJUSTMENT ITEMS

(Billion JPY)	FY2022 H1	FY2022 Revised Forecast (Oct 27, 2022)
Amortization of intangible assets associated with products	240.8	480.0
Of which Shire-acquisition related	*195.3*	*390.0*
Impairment losses on intangible assets associated with products	32.8	50.0
Other operating income	(13.5)	(13.0)
Other operating expenses	83.4	100.0
Other Core Operating Profit adjustments	26.7	33.0
Of which Shire-acquisition related to unwind of inventories step-up	*21.9*	*25.0*
Total core operating profit adjustments	370.2	650.0

CASH FLOW GUIDANCE

(Billion JPY)	FY2022 H1	FY2022 Revised Forecast (Oct 27, 2022)
Free cash flow	296.9	650.0 to 750.0
CAPEX (cash flow base)	(139.0)	(260.0) to (310.0)
Depreciation and amortization (excluding intangible assets associated with products)	(83.7)	(160.0)
Cash tax rate on adjusted EBITDA (excluding divestitures)	N/A	mid-teen %

FY2022 Reconciliation from Reported Operating Profit to Core Operating Profit Forecast

(Billion JPY)	REPORTED	REPORTED TO CORE ADJUSTMENTS				CORE
		Amortization of intangible assets	Impairment of intangible assets	Other operating income (expenses)	Others	
Revenue	3,930.0					3,930.0
Cost of sales					28.0	
Gross Profit					28.0	
SG&A and R&D expenses					5.0	
Amortization of intangible assets associated with products	(480.0)	480.0				—
Impairment losses on intangible assets associated with products	(50.0)		50.0			—
Other operating income	13.0			(13.0)		—
Other operating expenses	(100.0)			100.0		—
Operating profit	530.0	480.0	50.0	87.0	33.0	1,180.0

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