Consolidated Financial Results for the Six Months Ended June 30, 2023 [IFRS]

August 9, 2023

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Scheduled starting date of dividend payments: —
Supplementary briefing materials on quarterly financial results: No
Explanatory meeting on quarterly financial results: Yes (for institutional investors)

(Amounts of less than one million yen are rounded down)

1. Consolidated Financial Results for the Six Months Ended June 30, 2023 (January 1, 2023 to June 30, 2023)

(1) Consolidated operating results (% indicates changes from the previous corresponding period)

	Revenue		Core operating profit		Operating profit		Profit before tax	
	Million yen	%	Million yen	%	Million yen	%	Million yen	%
Six Months ended June 30, 2023	9,426	87.6	(793)	—	(986)	—	(1,110)	—
Six Months ended June 30, 2022	5,024	72.2	(1,180)	—	(1,665)	—	(1,590)	—

	Profit attributable to owners of parent		Total comprehensive income	
	Million yen	%	Million yen	%
Six Months ended June 30, 2023	(729)	—	(516)	—
Six Months ended June 30, 2022	(1,132)	—	(699)	—

	Basic earnings per share	Diluted earnings per share
	Yen	Yen
Six Months ended June 30, 2023	(5.62)	(5.62)
Six Months ended June 30, 2022	(8.72)	(8.72)

(2) Consolidated financial position

	Total assets	Net assets	Equity attributable to owners of parent	Ratio of equity attributable to owners of parent to total assets
	Million yen	Million yen	Million yen	%
As of June 30, 2023	57,704	31,020	31,020	53.8
As of December 31, 2022	63,865	32,041	32,041	50.2

2. Payment of Dividends

	Annual dividends				
	1st quarter-end	2nd quarter-end	3rd quarter-end	Year-end	Total
	Yen	Yen	Yen	Yen	Yen
Fiscal Year ended December 31, 2022	-	0.00	-	0.00	0.00
Fiscal Year ending December 31, 2023	-	0.00			
Fiscal Year ending December 31, 2023 (forecast)			-	0.00	0.00

(Note) Revisions to the dividend forecast announced most recently: No

3. Consolidated Financial Forecasts for the Fiscal Year Ending December 31, 2023 (January 1, 2023 to December 31, 2023)

	Revenue	Core operating profit	Operating profit	Profit before tax	Profit attributable to owners of parent
	Million yen / %	Million yen / %	Million yen / %	Million yen / %	Million yen / %
Fiscal Year ending December 31, 2023	30,000 / 11.7	6,700 / (30.5)	6,300 / (29.8)	3,700 / (44.4)	2,700 / (64.3)

(Note) Revisions to the consolidated financial forecast announced most recently: No

Items that are excluded from operating profit to calculate core operating profit include accounting effects of business acquisitions and acquisition-related costs, impairment loss on property, plant and equipment, intangible assets and goodwill, gains or losses on compensation, settlements, non-recurring and significant gains and losses, and amortization of intangible assets from introduction of individual products or developments.

[Notes]

(1) Changes in significant subsidiaries during the period (changes in specified subsidiaries resulting in change in scope of consolidation) :None

(2) Changes in accounting policies and changes in accounting estimates

1) Changes in accounting policies required by IFRS	:	None
2) Changes in accounting policies due to other reasons	:	None
3) Changes in accounting estimates	:	None

(3) Number of shares issued (common stock)

1) Number of shares issued at the end of the period (including treasury stock)	As of June 30, 2023	130,010,400 shares	As of December 31, 2022	130,010,400 shares
2) Number of treasury stock at the end of the period	As of June 30, 2023	402,647 shares	As of December 31, 2022	179,447 shares
3) Average number of shares during the period	Six Months Ended June 30, 2023	129,793,651 shares	Six Months Ended June 30, 2022	129,828,143 shares

(Note) The number of treasury shares at the end of the period includes shares in the Company held by the Custody Bank of Japan, Ltd. (Trust Account E) (179,200 shares as of December 31, 2022 and 402,400 shares as of June 30, 2023). In addition, the shares in the Company held by the Custody Bank of Japan, Ltd. (Trust Account E) are included in treasury shares excluded from calculating the average number of shares during the period (182,064 shares for the six months ended June 30, 2022 and 216,502 shares for the six months ended June 30, 2023).

* Quarterly financial results reports are not required to be subjected to quarterly review by a certified public accountant or an audit firm

* Explanation on the appropriate use of operating forecasts and other special instructions

(Caution regarding forward-looking statements)

Financial forecasts and other statements regarding the future presented in these materials are based on information currently available and certain assumptions deemed to be reasonable and are not meant to be taken as commitment of the Company to achieve such results. Actual performance may differ substantially due to various factors.

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1. Qualitative Information on Quarterly Financial Results for the Period under Review

(1) Explanation of Operating Results

During the six months ended June 30, 2023 (from January 1, 2023 to June 30, 2023), PeptiDream Inc. ("the Company") continued to make excellent progress in leveraging the PDPS (Peptide Discovery Platform System) technology, its proprietary drug finding platform, across its two (2) business segment; Drug Discovery and Development, and Radiopharmaceutical.

(A) Drug Discovery and Development Business Segment

The Drug Discovery and Development Business Segment is composed of three businesses: 1) Collaboration Discovery and Development Business, 2) PDPS Technology Transfer Business, 3) In-House/Strategic Discovery and Development Business.

As of June 30, 2023, the Company's pipeline consisted of 127 discovery & development programs.

The below table is a snapshot of the Company's program(s) across the three drug discovery approaches at the end of the current fiscal quarter.

【Number of programs for each drug discovery approach】	As of March 31, 2023	As of June 30, 2023
Peptide drugs	70	66
Small molecule drugs		
Peptide drug conjugates ("PDCs")	57	61
Multi-functional peptide conjugates ("MPCs")		
Total	127	127

The below table is a snapshot of the number of program(s) currently at each stage of the discovery and development process, compared to the end of March.

【Number of programs at each stage of the discovery and development process】	As of March 31, 2023	As of June 30, 2023
Target Validation-to-Hit Stage	13	14
Hit-to-Lead Stage	74	70
Lead-to-GLP-Tox Stage	26	29
GLP-Tox-to-IND Stage	10	9
Phase 1	4	5
Phase 2	0	0
Phase 3	0	0
Total	127	127

The figures in the above table include; (i) ALL preclinical and clinical programs in the Collaboration Discovery and Development business and the In-House/Strategic Discovery and Development business, (ii) ONLY clinical programs in the PDPS Technology Transfer business, and (iii) DOES NOT include programs in the Radiopharmaceuticals Business Segment.

The below table is a snapshot of the development status of main programs.

Program	Indication	Partner	Pre-clinical	Clinical Ph1	Clinical Ph2	Clinical Ph3	Status
PD-L1 Therapeutic Peptide	Oncology	Bristol-Myers Squibb					Phase 1 started Apr. 2022 (ISRCTN17572332) • Assessment the safety and tolerability of PD-L1 inhibitor in healthy subjects
PD-L1 BMS-986229 RI-PDC (PET diagnostic)	Oncology	Bristol-Myers Squibb					Phase 1 started Nov. 2019 (NCT04161781) • ^{18}F-labeled PET tracer that specifically binds to cancer cells expressing PD-L1 • Evaluate PD-1/PD-L1 expression in patients
CD38 BHV-1100 + NK Cells Therapeutic MPC	Multiple Myeloma	Biohaven					Phase 1a/1b started Oct. 2021 (NCT04634435) • Evaluate the safety, tolerability, and exploratory efficacy in multiple myeloma patients • Orphan Drug Designation
GhR AZP-3813 Therapeutic Peptide	Acromegaly/NET	Amolyt Pharma					Phase 1 started Jun. 2023 • Evaluate the safety, tolerability, pharmacokinetics, and pharmacodynamics following single and multiple ascending doses in healthy subjects
Undisclosed Therapeutic Peptide	Undisclosed	Merck					Phase 1 started Jul. 2023
S2-protein PA-001 Therapeutic Peptide	COVID-19	PeptiAID					Safety and clear dose-dependent pharmacokinetics profile were observed in Clinical research conducted in Japan (jRCTs031210601); • Aims the start of Ph1 study in 2024 1H
Glypican-3 RI-PDC	Liver cancer	RayzeBio					Selected clinical candidate (Mar. 2023) Clinical Imaging/IND enabling
Undisclosed RI-PDC	Oncology	RayzeBio					Selected clinical candidate (Dec. 2022) GLP-Tox to IND stage
KIT Therapeutic Small Molecule	Mast Cell-Driven Allergic Diseases	Modulus					Selected Clinical Candidate (Aug. 2023) Partnering discussions
Myostatin Therapeutic Peptide	Obesity/SMA/DMD/ Muscle Disorders	In-house (Kawasaki Med. School)					Selecting clinical candidate Partnering discussions
Undisclosed RI-PDC	Oncology	Novartis					Lead to GLP-Tox stage
TfR Oligo-PDC	Neuromuscular Disorders	Takeda					Lead to GLP-Tox stage
c-Met Therapeutic Peptide	Undisclosed	Genentech					Lead to GLP-Tox stage
Undisclosed Therapeutic Peptide	Undisclosed	Asahi Kasei Pharma					Lead to GLP-Tox stage
Undisclosed Therapeutic MPC	Undisclosed	Santen					Lead to GLP-Tox stage
HA-protein PD-001 Therapeutic Peptide	Influenza	In-house					Considering partnering options in light of changing global market environment

Note: As of June 2023, above list not inclusive of all programs

Clinical Stage Programs:

1. **PD-L1 Inhibitor Program:** Indication: Oncology; Modality: Therapeutic Peptide; Partnered with BMS. The macrocyclic peptide PD-L1 (programmed death ligand-1) inhibitor is currently being tested in a Phase 1 study, (ISRCTN17572332; initiated in April 2022; conducted in the UK by Quotient Sciences Limited (code QSC203717), investigating the safety, tolerability, and pharmacokinetics in 136 healthy volunteers. Publication of some trial details is deferred because of the high commercial sensitivity of this Phase 1 study and the negligible benefit to the public of Phase 1 information. Results will be posted on or after the date of publication of full trial details.
2. **PD-L1 Bioimaging Agent Program:** Indication: Oncology Imaging; Modality: Diagnostic RI-PDC; Partnered with BMS (BMS-986229). 18F-BMS-986229 is currently being tested (ClinicalTrials.gov Identifier: NCT04161781; initiated in November 2019; conducted in US at Memorial Sloan Kettering Cancer Center) as a radioactive tracer to determine if positron emission tomography (PET) imaging is a practical and safe way to both diagnose and track the status of esophageal, stomach, and gastroesophageal junction cancers in patients. 18F-BMS-986229 PET scans may better show a protein located on tumor cells called PD-L1 and help doctors choose treatment options that use PD-L1 to fight cancer compared to the usual approach using fluorodeoxyglucose (FDG) PET scans.
3. **CD38-ARM™ Program:** Indication: Multiple Myeloma; Modality: MPC; Partnered with Biohaven (BHV-1100). BHV-1100 (CD38-ARM™) is currently being tested in an open-label single center Phase 1a/1b study (ClinicalTrials.gov Identifier: NCT04634435; initiated in October 2021; conducted in US by Dana-Farber Cancer Institute) with the primary objective of establishing the safety and exploring the efficacy of infusing the ex-vivo combination product of cytokine induced memory-like (CIML) natural killer (NK) cells with BHV-1100 and immunoglobulin (IVIG) followed by low dose IL-2 to target and kill multiple myeloma cells expressing the cell

surface protein CD38 in minimal residual disease positive (MRD+) multiple myeloma (MM) patients in first or second remission. Biohaven reported in March 2023 (March 2023 Corporate Presentation) first patient survival to one year and that two additional patients have been randomized in the ongoing clinical study.

4. **GhR Program:** Indication: Acromegaly; Modality: Therapeutic Peptide; Partnered with Amolyt (AZP-3813). AZP-3813, a macrocyclic peptide growth hormone receptor antagonist (GHRA), is currently being tested in a Phase 1 study (initiated in June 2023), investigating the safety, tolerability, pharmacokinetics, and pharmacodynamics of AZP-3813 following single and multiple ascending doses in healthy subjects, as a potential add-on to somatostatin analogs for the treatment of acromegaly. Results of the Phase 1 study are expected in the first quarter of 2024.

5. **S2-Protein Inhibitor Program:** Indication: COVID-19; Modality: Therapeutic Peptide; Partnered with PeptiAID (PA-001). PA-001 was tested in an exploratory single ascending dose administration clinical study (dRCTs031210601) in 30 healthy Japanese adult male volunteers in accordance with the Clinical Trials Act in Japan, and as reported in August 2022, was found to be safe and well tolerated without any compound related adverse events and demonstrated a clear-dose dependent pharmacokinetic profile, supporting further clinical development. PeptiAID is currently planning next development steps, with clinical trial consideration for PA-001 (viral entry S2 inhibitor) in combination with existing viral replication inhibitors for high-risk patient groups.

In the Collaboration Discovery and Development Business;

During the current fiscal quarter, on April 5, 2023, the Company announced that it had achieved a development milestone in its discovery alliance with Germany-based Bayer AG ("Bayer"). The development milestone is for the achievement of macrocyclic/constrained peptide candidates meeting the pre-defined candidate milestone criteria, per the research collaboration and license agreement between both companies announced November 16, 2017 and expanded on May 27, 2020. This achievement entitles PeptiDream to receive an undisclosed development milestone payment. PeptiDream is eligible for potential additional future pre-clinical and clinical development milestones, as well as royalties on future sales, on any product arising from the discovery and development program.

In the PDPS Technology Transfer Business;

As of June 30, 2023, the Company has non-exclusively licensed its PDPS technology to 11 companies: Bristol-Myers Squibb (2013), Novartis (2015), Eli Lilly (2016), Genentech (2016), Shionogi (2017), MSD (Merck & Co., Inc., Rahway, NJ, USA) (2018), MiraBiologics (2018), Taiho Pharmaceutical (2020), Janssen (2020), ONO Pharmaceutical (2021) and Fujirebio (2022).

In accordance with all PDPS technology license agreements, the Company is not informed as to what specific discovery and development programs are being prosecuted by the licensee company until certain initial pre-clinical milestones are achieved. The Company continues to receive various technology license and management payments from the licensee companies, in addition to potential preclinical and clinical milestone payments as programs advance. In addition, the Company continues to receive interest from multiple companies interested in licensing the PDPS technology.

In the In-House/Strategic Discovery and Development Business;

The Company continues to advance and expand the number of In-House/Strategic Discovery and Development programs. The goal of these efforts is to develop the programs to at least the lead and/or clinical candidate stage or potentially post-Phase 1/2 stage, before seeking to license these programs out to big pharma companies, leveraging the Company's existing network of partners, for significantly higher financials than can be attained from standard discovery and development deals. The Company has continually been expanding its capabilities in turning hit candidates identified from the PDPS technology into 1) peptide therapeutics, 2) small molecule therapeutics, 3) peptide drug conjugates ("PDCs") and 4) multi-functional peptide conjugates ("MPCs"). Programs being developed with Strategic partners, Strategic partners being companies that bring proprietary technology/know-how to combine with the Company's, are often under some type of cost-sharing agreement, in which the costs of discovery and development are shared, allowing the Company to often have a larger share in the program and future revenues if successful. In addition, the

Company continues to pursue a number of in-house fully-owned programs and looks forward to providing future updates as these programs progress toward the clinic.

The Company has announced strategic partnerships with JCR Pharmaceuticals Co., Ltd. (“JCR Pharma”), Modulus Discovery, Inc. (“Modulus Discovery”), Heptares Therapeutics Ltd. (“Sosei-Heptares”), Biohaven Ltd. (“Biohaven”), POLA Chemical Industries (“POLA”), Kawasaki Medical School, the Bill & Melinda Gates Foundation (“Gates Foundation”), Mitsubishi Corporation (“MC”), in the joint venture, PeptiGrowth Inc. (“PeptiGrowth”), RayzeBio Inc.(“RayzeBio”), PeptiAID Inc. (“PeptiAID”) and Amolyt Pharma (“Amolyt”).

The Company and **JCR Pharma** have successfully developed a series of constrained peptides that bind to the transferrin receptor (TfR) and are capable of carrying various therapeutic payloads across the blood-brain barrier (BBB) for delivery/targeting to the brain, and for the delivery of therapeutic payloads to muscle, arising from the joint research collaboration between the companies initiated in February 2016. Most therapeutics do not readily cross the BBB into the brain, with only a small fraction of the drug ever entering the central nervous system (CNS), posing a significant challenge to the development of effective therapeutics for the treatment of CNS disorders. The developed peptide carriers, when conjugated to various therapeutic payloads (herein referred to as a peptide-drug conjugates or “PDC”), function to facilitate the transport of the payload across the BBB into the brain, thereby significantly increasing the amount of the therapeutic payload in the brain, and/or can function to deliver the therapeutic payloads specifically to muscle, thereby significantly increasing the amount of therapeutic targeted to muscle. Potential payloads range from antibody and protein therapeutics to nucleic acids, peptides, and small molecule drugs. The two companies are focusing on third-party licensing activities, with PeptiDream leading such activities from execution of agreement to supply of peptide carriers, with the Dec 22, 2020 announced collaborative research and exclusive license agreement to create PDCs for neuromuscular diseases with Takeda Pharmaceutical Company Limited, representing the first of such licensing deals. The Company announced on July 27, 2021, a further expansion of the collaborative research and license agreement with Takeda Pharmaceutical Company extending into CNS Diseases. The companies are looking to conjugate the peptide carriers to a number of Takeda payloads, and the collaboration has the potential to yield a number of therapeutics products in the neuromuscular, muscular, and CNS disease space. The Company continues to discuss additional potential research and license agreements for the TfR carrier peptides with various companies, with the Company and JCR Pharma sharing related revenues from such licensing activities.

The Company and **Modulus Discovery** have been leveraging the expertise of both companies to jointly discover and develop small molecule clinical candidates based on peptide hit candidates identified from the PDPS technology against high value kinase targets. Modulus Discovery is utilizing its computational chemistry technology and expertise to design small molecule candidates in collaboration with the Company, with the companies jointly sharing the costs and co-owning any resulting products. The companies have now identified highly selective and potent small molecule lead compounds for KIT, a specific high value kinase target which is considered to play an important role in allergic diseases and have recently completed in vivo proof of concept studies validating the lead candidate’s efficacy. The companies are continuing preclinical development with Modulus leading out-licensing activities of the program. The Company currently holds a less than 5% equity stake in Modulus Discovery.

The Company and **Sosei-Heptares** are working to discover, develop and commercialize novel therapeutics targeting Protease Activated Receptor 2 (PAR2), which is a well validated target for multiple indications in pain, cancer, and inflammatory disease. The strategic partnership brings together two powerful technologies, Sosei-Heptares’s StaR platform for GPCR target protein production and the Company’s PDPS hit finding technology, in addition to considerable preclinical and clinical development capabilities. Under the agreement, the companies jointly share the costs and will co-own any resulting products. As announced on May 12, 2021, the companies have previously identified high affinity and selective inhibitors against PAR2 and have optimized them to be sufficiently stable in the gut for oral administration, and lead candidates are currently advancing through preclinical studies with the objective of developing a novel oral peptide therapy to treat inflammation and pain in gastrointestinal (GI) disorders, such as Inflammatory Bowel Disease. The companies are continuing preclinical development of the program and are actively discussing a variety of partnering and out-licensing options for the program.

The Company and **Biohaven** are developing BHV-1100 (CD38-ARM™), a bispecific heterodimeric peptide conjugate (a CD38 binding peptide conjugated to an IgG binding peptide), designed to recruit endogenous antibodies to multiple myeloma ("MM") cancer cells, targeting them for destruction via the body's innate antibody-mediated immune mechanisms. BHV-1100 + Autologous NK cells received Orphan Drug Designation on September 8, 2020. BHV-1100 is currently being tested in an open-label single center Phase 1a/1b study (ClinicalTrials.gov Identifier: NCT04634435)(Dana-Farber Cancer Institute) with the primary objective of establishing the safety and exploring the efficacy of infusing the ex vivo combination product of cytokine induced memory-like (CIML) NK cells plus BHV-1100 and low dose IL-2 in newly diagnosed MM patients who have minimal residual disease (MRD+) in first or second remission prior to autologous stem cell transplant (ASCT), with the primary outcome measures being dose limiting toxicities following combination product administration (time frame: 100 days post-combination product administration) and incidence and severity of side effects related to the combination product (time frame: 90 to 100 days post-combination product administration).

The Company and **POLA Chemical Industries** ("POLA") are working on the discovery and development of dermatology focused peptide-based cosmetics, quasi-drugs, and therapeutics. The Company has been identifying candidates using its PDPS technology against applicable dermatological targets based on POLA's extensive expertise in the field and the companies are working together to commercialize such cosmetic products. The Company retains the development and commercialization rights to any therapeutic use for any such products arising from the collaboration. The companies have identified a number of lead candidates that are now being tested in in-vitro and ex-vivo models for efficacy and potential use in cosmetic products.

The Company, initially in collaboration with **Kawasaki Medical School**, has developed a series of potent macrocyclic peptide inhibitors of Myostatin. Myostatin (also known as growth differentiation factor 8, or GDF8) is a protein produced and released by myocytes that acts as a powerful negative regulator of skeletal muscle mass. Numerous preclinical and clinical studies have suggested that myostatin inhibitors can increase lean muscle mass, improve physical strength, reduce visceral fat, and improve metabolic dysfunction, such as insulin-mediated glucose disposal, providing growing evidence that myostatin may be an important therapeutic target for the treatment of a variety of muscular dystrophies, such as Spinal muscular atrophy "SMA", Facioscapulohumeral muscular dystrophy "FSHD", Duchene muscular dystrophy "DMD" and other muscle wasting diseases, as well as a potential treatment for obesity, metabolic syndrome, and type 2 diabetes mellitus. In preclinical animal models, the Company's myostatin inhibitors show strong suppression of myostatin signaling and high exposure in muscle tissue, resulting in significant improvements in both muscle mass and muscle strength, justifying further development. The Company is currently considering clinical development options for the program as well as discussions with potential partners interested in licensing/partnering the program.

The Company and **the Gates Foundation** have been working on the development of a series of novel macrocyclic peptides for the treatment of Tuberculosis and Nontuberculous Mycobacterial (NTM) diseases, infectious diseases that disproportionately affect people in the world's poorest countries. Bacterial infections are among the leading causes of morbidity and mortality globally. The global burden of tuberculosis is staggering, with up to one-third of the world's population latently-infected, and with 10.4 million new active cases and 1.8 million deaths occurring annually. The Company previously received grant funding in November 2017 for the screening and identification of potential macrocyclic peptide candidates to treat Tuberculosis, and again in November 2019 for optimizing one of the most promising hit candidate series into lead candidates ("hit-to-lead development funding") suitable for future development. In 2022, the Company further optimized the lead candidate series to have oral bioavailability and preclinical efficacy studies continue. Under the terms of the original grant(s), any Gates Foundation-funded products that arise will be made available by PeptiDream at an affordable price in lower middle-income countries (LMIC). The Company is able to commercialize in developed countries on its own and is actively discussing out-licensing/partnering options for the program.

The Company and **MC** established a joint venture company, PeptiGrowth to develop, produce and sell peptide alternatives to

growth factors, key ingredients of cell culture, used in the manufacturing of cell therapies, regenerative medicines and other biopharmaceutical areas, including the growing market of lab-grown meat and other products. PeptiGrowth is leveraging the expertise and know-how of both parent companies toward the advancement of cell therapies, regenerative medicines, and other biopharmaceuticals in the pharmaceutical industry. Growth factors are a class of proteins that are widely present in humans and other animals. In addition to playing important roles in cell growth and proliferation, they are crucially involved in induction of differentiation of stem cells (iPS cells, ES cells, etc.) into nerve, blood, and other types of cells. Currently, growth factors are mainly extracted from animal serum or produced by recombination technology, however, their production presents a number of challenges to the pharmaceutical industry, including safety risks due to contamination with impurities, variation in quality among production lots, and high production costs. PeptiDream has been using its proprietary PDPS (Peptide Discovery Platform System) technology, to identify alternative peptides that perform the equivalent function as protein growth factors and utilize chemical synthetic routes that do not use animal serum or recombination technology, and by establishing a commercial manufacturing process, PeptiGrowth can produce homogenous products of high purity, ensuring less lot to lot variation, at lower costs. PeptiGrowth will fully leverage the MC Group's global network and its broad customer base to enhance marketing and sales functions. PeptiGrowth has already launched six products; PG-001 (a peptide alternative to hepatocyte growth factor (HGF)), PG-002 (a peptide inhibitor of TGFβ1) in 2021 and PG-003 (a peptide alternative to brain derived neurotropic factor (BDNF)), PG-004 (a peptide inhibitor of BMP4,7), PG-005 (BMP7 selective inhibitor) and PG-006 (BMP4 selective inhibitor) in 2022. The Company is progressing a number of additional peptide alternative growth factor programs in parallel, with additional products expected to be launched in 2023. The Company is in active discussions with multiple potential partners regarding the therapeutic use of these alternative peptides, to which PeptiDream holds the exclusive development and commercialization rights. The Company licensed the global therapeutic development and commercialization rights to PG-001 to Genentech in May 2022. The Company currently holds a 39.5% equity stake in PeptiGrowth, with MC holding the remaining 60.5%.

The Company and **RayzeBio** are working to discover and development peptide-RI conjugates for use as therapeutics (“Peptide Radiotherapeutics”). The two companies have been working on a number of programs against targets of interest, with PeptiDream providing peptide candidates, identified and optimized using its proprietary Peptide Discovery Platform System (PDPS) technology and in-house peptide chemistry capabilities, to RayzeBio for further development as radiotherapeutics and radiodiagnostics. PeptiDream is leading preclinical discovery and optimization efforts, with RayzeBio leading translational biology efforts to further characterize peptide-RI conjugates and advance such conjugates into clinical development. Under the terms of the agreement, PeptiDream received an equity interest in RayzeBio, as an upfront payment in August 2020, and has received subsequent milestone payments in November 2020, June 2021, and September 2022, as multiple programs advance. The Company is eligible to receive certain further milestone payments and royalties on future sales (ex-Japan) of any products that arise from the partnership. As announced on August 9, 2022, RayzeBio granted PeptiDream an option to attain development and commercialization rights in Japan to the companies joint peptide-RI conjugate programs. The Company and RayzeBio announced the nomination of the first peptide-radioisotope conjugate (RI-PDC) development candidate (target undisclosed) for treating solid tumors in December 2022 and the second RI-PDC development candidate against Glypican-3 (GPC3) for the treatment of liver cancer in March 2023, with initial preclinical data for the GPC3 program presented at the EASL Liver Cancer Summit in April 2023. The companies’ GPC3 targeting candidate is currently being tested in human clinical imaging studies. The Company currently holds a 5% equity stake in RayzeBio.

The Company and **PeptiAID**, a joint venture with Fujitsu, Mizuho Capital, Takenaka Corporation, and Kishida Chemical established November 12, 2020, have been working on the development of PA-001, a peptide therapeutic for the treatment of COVID-19. The Company applied its proprietary PDPS technology toward identifying peptide candidates targeting the COVID-19 viral “spike“ protein, which is essential for coronavirus to enter human cells, leading to the discovery of PA-001. On March 23, 2021, PeptiAID announced the initiation of preclinical studies of the Company’s PA-001 candidate which exhibits highly potent antiviral activity against conventional SARS-CoV-2, as well as all mutant strains identified to date, such as the Alpha, Beta, Gamma, Delta and Omicron mutant strains. An in vitro study also demonstrated high synergistic effectiveness when used in combination

with drugs that are currently approved for emergency use against COVID-19. Preclinical studies of PA-001, consisting of toxicity, safety pharmacology, and genotoxicity studies have been completed and confirmed the safety of PA-001. Early-stage exploratory clinical research of PA-001 based on the Clinical Trials Act, was initiated in February 2022 (jRCT (Japan Registry of Clinical Trials) Trial ID: jRCTs031210601). In this clinical research, adverse events, injection site reaction and vital signs of the single ascending dose administration of PA-001 from Step1 (0.3mg/kg) to Step5 (8mg/kg) by intravenous injection for healthy Japanese adult volunteer, were investigated, and as announced on August 10, 2022, PeptiAID confirmed that PA-001 exhibited no compound related adverse events and exhibited a favorable safety profile, along with a clear dose-response pharmacokinetics profile. On May 15, 2023, PeptiAID has been selected by the Japan Agency for Medical Research and Development (AMED) to receive a grant to conduct a Phase 1 study of PA-001, with such study currently being planned. The Company currently holds a 39.4% equity stake in PeptiAID.

The Company and **Amolyt** entered into a strategic partnership and license option agreement, announced March 8, 2020, On September 9, 2021, the Company announced that Amolyt had exercised its option to globally license a portfolio of macrocyclic peptide growth hormone receptor antagonists (GHRA) under the terms of the research collaboration agreement with the Company announced in March 2020. PeptiDream will be eligible for certain payments associated with development, and commercial success of any GHRA product(s), as well as be eligible for certain royalties on future net sales. The identified, optimized drug candidate, AZP-3813, is being developed as a potential treatment for acromegaly and neuroendocrine tumors (NET), to potentially be used in combination with somatostatin analogues (SSAs), for patients who do not adequately respond to SSAs alone. As presented by Amolyt at the 2023 European Congress of Endocrinology (ECE) in May, 2023, and at the 2023 Endocrine Society Meeting (ENDO) in June, 2023, reported that treatment with AZP-3813 induced enhanced suppression of IGF1 levels in normal Beagle dogs. On June 5, 2023 Amolyt announced the initiation of a Phase 1 clinical trial of AZP-3813 for the treatment of acromegaly. Results of the Phase 1 study are expected in the first quarter of 2024. On September 16, 2021, Amolyt announced the closing of an $80 million Series B round, and on January 10, 2023, the closing of an $138 million Series C round with the funds to be used in part toward the clinical development of AZP-3813.

The Company continues to work on a number of fully-owned in-house programs. The Company's main area of focus is on identifying and optimizing peptide candidates against a number of high value tumor/cancer specific targets, for potential conjugation to radionuclide ("RI") payloads for use as peptide-RI conjugates for the treatment of cancer. The recent acquisition of PDRadiopharma has allowed the Company to rapidly move the most promising candidates into in vivo bioimaging studies, and the Company is prioritizing the most promising programs with the goal of nominating one or more development candidates in 2023. The Company intends to retain Japan commercialization rights to such peptide-RI-PDC programs, while out-licensing ex-Japan commercialization rights to interested pharma companies. The Company is also actively investigating the use of these cancer targeting peptides with other potential payloads in collaboration with various existing and/or new partners. A second main area of focus for the Company is around the discovery and development of multi-functional peptide conjugates (MPCs), as the Company believes that MPCs may represent a superior modality to bispecific antibodies and other multi-functional molecule classes. The Company has been focused on identifying novel T cell and NK cell targeting peptides, which can be conjugated with the tumor specific targeting peptides above, to generate a new class of T cell and NK cell engagers molecules, an area that holds exciting therapeutic promise. In addition to T cell and NK cell engager molecules, the Company has selective potent candidates against a variety of pro-inflammatory cytokines, including IL17, and is actively investigating combining various candidates into MPCs, as there is growing clinical evidence that antagonizing multiple pro-inflammatory pathways in parallel may represent a better therapeutic strategy. The Company has a number of other internal programs, outside these main areas of focus, such as the Company's influenza hemagglutinin (HA) program, which exhibits strong broad efficacy against group 1 influenza strains, including the H5N1 strain, and further enhanced potency in combination with existing influenza treatments, such as Tamiflu, in in vivo animal studies, to which the Company continues to consider a variety of partnering and out-licensing options for the program, as the number of influenza cases make a global resurgence as social contact returns following the COVID-19 pandemic.

The Company has previously announced, along with Shionogi & Co., and Sekisui Chemical Co., Ltd, the formation of PeptiStar Inc., a Contract Development and Manufacturing Organization (“CDMO”) for the research and commercial manufacture of peptide therapeutics. PeptiStar brings together the most cutting-edge technologies and innovations in large-scale peptide production from various companies throughout Japan in order to manufacture peptides of the highest quality and purity, while simultaneously driving down the cost of production. The PeptiStar manufacturing facility is located in Osaka. PeptiDream currently holds less than 15% equity stake in PeptiStar.

(B) Radiopharmaceutical Business Segment:

Through the acquisition of PDRadiopharma Inc., which became a 100% subsidiary on March 28, 2022, PeptiDream is engaged in the research, development, manufacture, and sales of radiopharmaceuticals (both radiotherapeutic and radiodiagnostic) products. PDRadiopharma currently markets 22 radiodiagnostic agents for SPECT (Single Photon Emission Computed Tomography), 2 PET (Positron Emission Tomography) imaging agents and 8 radiotherapeutic products (in 3 product categories). PDRadiopharma also develops and provides image analysis software used to assist interpretation of images obtained from these radiodiagnostic agents.

PDRadiopharma's key radiopharmaceutical products are described in the table below.

・**Radiodiagnostic Products (SPECT)**

Product Name	Therapeutic Category
Neurolite® Injection Daiichi	Diagnosis of cerebral blood flow
Cardiolite® Daiichi	Diagnosis of cardiac disease, cardiac function and parathyroid diseases
Thallium Chloride-Tl 201 Injection	Diagnosis of cardiac disease, tumor, and parathyroid diseases
MyoMIBG®-I 123 Injection	Diagnosis of cardiac disease, neuroblastoma and pheochromocytoma
Techne® MDP Injection	Diagnosis of bone diseases, brain tumor and cerebrovascular disorders
Ultra-Techne Kow®	Diagnosis of brain, thyroid, salivary glands and ectopic gastric mucosal diseases, and regional pulmonary ventilation
Octreoscan® Injection	Diagnosis of neuroendocrine neoplasm

・**Radiodiagnostic Products (PET)**

Product Name	Therapeutic Category
AMYViD® Injection	Amyloid imaging
Fludeoxyglucose(F18) Injection FRI	Diagnosis of tumor, ischemic heart disease and epilepsy

・**Radiotherapeutics Products**

Product Name	Therapeutic Category
Raiatt MIBG-I 131 Injection	Treatment of pheochromocytoma and paraganglioma
Sodium Iodide-I 131 Capsules	Treatment of thyroid cancer and diagnosis of thyroid diseases
ZEVALIN® Yttrium Injection	Treatment of CD20-positive non-Hodgkin lymphoma and mantle cell lymphoma

PDRadiopharma currently has four programs in clinical development as described in the table below.

	Program/ Target	Radio-isotopes	Indication	Clinical Ph1	Clinical Ph2	Clinical Ph3	Marketed	Notes
Dx	Tauvid® Tau	^{18}F	Alzheimer's disease	Co-development with Eli Lilly in Japan			US (Eli Lilly)	Approved by US FDA in 2020
Dx	F-1311 PSMA	^{99m}Tc	Prostate Cancer	Japan (PDR)			US (Lantheus)	In-licensed from Lantheus Medical Imaging
Thx	FF-10158 Integrin αvβ3/5	^{68}Ga/ ^{177}Lu	Malignant glioma and others			US/ EU (NVS)		Out-licensed ex-Japan rights to Novartis PDR retains Japan rights
Thx	FF-21101 Cadherin 3	-	Advanced and recurrent solid tumors	Japan (PPMX)		US (PPMX)		Co-owned with Perseus Proteomics (PPMX) PPMX leading out-licensing activities

Note: Dx: Diagnostics, Thx: Theranostics; As of July 2023.

PDRadiopharma, in partnership with Lilly, is co-developing flortaucipir (F18) (Product name in the US: Tauvid®) in Japan, a PET Imaging agent for diagnosing and monitoring the progression of Alzheimer's disease by visualizing neurofibrillary tangles (NFTs) caused by abnormally accumulated tau protein in the brain. The Company expects that the approval of flortaucipir F18, along with PDRadiopharma' s already approved AMYViD®, will greatly expand the use of PET diagnostic reagents in the diagnosis and monitoring of AD.

In March 2023, PDRadiopharma received approval for indication expansion of "Techne® Phytate Kit" for the identification of sentinel lymph node and lymphoscintigraphy in cervical cancer, corpus uteri cancer, vulvar cancer and head and neck cancer (excluding thyroid cancer). In April 2023, PDRadiopharma submitted a partial change application for an additional indication of AMYViD® Injection

The Company is active in the discovery and development of RI-PDCs for use as radiodiagnostics and radiotherapeutics both fully-owned internal programs and programs in collaboration with BMS (radiodiagnostics), Bayer (radiodiagnostics), Novartis (radiodiagnostics/ therapeutics), and RayzeBio (radiodiagnostics/therapeutics), and has established itself as one of the major players in this field.

Integrating the technologies, know-how and networks of PeptiDream and PDRadiopharma, the Company group aims to expand its radiopharmaceuticals business by developing new radiopharmaceuticals and in-licensing promising radiopharmaceuticals from Companies overseas that are interesting in bringing their products into the Japan market.

On September 17, 2021, the Company Group announced that it was successful in its bid for Lots 2-11 and 2-12 (Address: 3-chome, Tonomachi, Kawasaki-ku, Kawasaki City, Kanagawa) in the public tender for land that was conducted by the Urban Renaissance Agency as follows: Location: 102-20 and 102-21, 3-chome, Tonomachi, Kawasaki-ku, Kawasaki City, Kanagawa, Land area: 11,635.60 m2, Bid-winning price: 3.2 billion yen. KING SKYFRONT has been designated as an international strategic zone and the Keihin-Rinkai Life Innovation Comprehensive Global Strategic Special Zone. It is an open innovation hub for the creation of new industries based on world-class R&D in the life science fields. The Company plans to expand the Company's head office and research facilities on the land, and with the acquisition of PDRadiopharma, the Company is evaluating the best use of the land, as the Company hopes to add certain functions to further enhance the RI-PDC and radiopharmaceuticals business. Details of the plan will be announced as soon as they are finalized. The Company purchased the land using funds on hand, and the construction of any future buildings will be through funds on hand and/or long-term loans from financial institutions.

PeptiDream Group continues its commitment to promoting ESG (Environmental, Social, and Governance) initiatives and its sustainability efforts including focus areas, ten most material issues, relevant policies and data are proactively disclosed on the corporate website and Sustainability Report. In addition, in order to further promote sustainability initiatives as a group, PDRadiopharma established a new "Sustainability Promotion Committee" to review and promote sustainability initiatives at PDRadiopharma.

As GHG (greenhouse gas) emissions (Scope 1+2) produced by our business operations mainly derive from electronic power consumption, the Company has selected an electricity supplier which proactively promotes the shift towards renewable energy. To further take this initiative, the Company has decided to introduce CO2 (carbon dioxide)-free power from its supplier for use at our head office and laboratory. This means that we will achieve our medium-term goal of the realization of "carbon-neutral" business operations 4 years earlier than originally planned.

The Company believes as a R&D-driven innovative company that ensuring diversity is important in gaining a competitive advantage and nurturing innovation in order to fulfill its mission. In particular, the Company values the diversity of expertise and scientific sense of each individual employee, and believes it is important to ensure a framework which allows the managers and

senior scientists who play kay roles in R&D and management to engage in science-based discussions and decision-making regardless of their age, gender or cultural background. The Company has set four quantitative indicators which it considers to be constituent elements of the diversity of core human resources (*1). The current status of these indicators and the Company's 2030 targets are as follows; (1) Ratio of doctorate (Ph.D.) holders (end of December 2022: 51.2%, target for 2030: Maintain 50% or more); (2) Female manager ratio (end of December 2022: 18.6%, target for 2030: 30% or more); (3) Ratio of foreign employees or employees with overseas work experience (*2) (end of December 2022: 32.6%, target for 2030: Maintain 30% or more); and (4) Ratio of young employees (in 20s/30s) (end of December 2022: 16.3%, target for 2030: 30% or more).

*1: Managers and senior-ranking specialists (excludes officers)

*2: Employees with overseas research or work experience (excludes periods of less than one year and periods as a student studying abroad)

The Company has received high evaluations from various evaluation organizations through continuous efforts for sustainability. On January 2022, the Company was awarded as a "Top-Rated ESG Performer" for 2022 by Sustainalytics, a global ESG rating agency, and has been identified as top performer within the industry (rated No.2 among the 439 global biotech companies being evaluated). On April 2022, the Company was selected as an index constituent of the FTSE Blossom Japan Sector Relative Index, constructed by global index provider FTSE Russel. In addition, on March 30, 2022, Japan's Government Pension Investment Fund (GPIF), which manages Japan's public pensions, announced that it has newly adopted the FTSE Blossom Japan Sector Relative Index as the general ESG index for Japanese equities. PeptiDream has been recognized by CDP for its leadership in climate change with an A- (A minus) rating. PeptiDream reached the Leadership level, the highest level, as a company that excels in its efforts and information disclosure in climate change. On May 2023, the Company was selected as a constituent of the JPX Prime 150 Index, a new index developed by JPX Market Innovation & Research, Inc., a subsidiary of the Japan Exchange Group.

As of June 30, 2023, the Group had a total of 692 employees (704 when including its 12 board members and approximately 26.5% of employees are women). The Company had a total of 201 employees and PDRadiopharma Inc. had a total of 491 employees, including temporary staff.

As a result of the above, for the six months ended June 30, 2023, the Drug Discovery and Development Business recorded revenue of 1,461,366 thousand yen (a 343,042 thousand yen increase year on year), segment loss of 1,168,739 thousand yen (a 220,355 thousand yen decrease year on year), the Radiopharmaceutical Business recorded revenue of 7,964,683 thousand yen, segment profit of 227,641 thousand yen, and the Group recorded revenue of 9,426,049 thousand yen (a 4,401,652 thousand yen increase year on year), core operating loss of 793,562 thousand yen (a 386,471 thousand yen decrease year on year), operating loss of 986,098 thousand yen (a 679,598 thousand yen decrease year on year), loss before tax of 1,110,932 thousand yen (a 480,040 thousand yen decrease year on year), and loss attributable to owners of parent of 729,014 thousand yen (a 403,237 thousand yen decrease year on year).

In addition to IFRS-based results, the Company discloses financial results on a core basis as an indicator of its recurring profitability. Certain items reported in financial results on a IFRS basis that are deemed to be non-recurring items by the Company are excluded as non-core items from these financial results on a core basis.

Items that are excluded from operating profit to calculate core operating profit include accounting effects of business acquisitions and acquisition-related costs, impairment loss on property, plant and equipment, intangible assets and goodwill, gains or losses on compensation, settlements, non-recurring and significant gains and losses, and amortization of intangible assets from introduction of individual products or developments.

A reconciliation of core operating income to operating income is as follows:

(Thousands of yen)

	Results for the six months ended June 30, 2022	Results for the six months ended June 30, 2023	Change	%
Core operating profit (loss)	(1,180,034)	(793,562)	386,471	―
Accounting effects of business acquisitions and acquisition-related costs	474,130	169,472	(304,657)	(64.3)
Impairment loss on property, plant and equipment, intangible assets and goodwill	―	―	―	―
Gains or losses on compensation, settlements	―	―	―	―
Non-recurring and significant gains and losses	―	―	―	―
Amortization of intangible assets from introduction of individual products or developments	11,531	23,062	11,531	100.0
Operating profit (loss)	(1,665,696)	(986,098)	679,598	―

(2) Explanation of Financial Position

1) Analysis of financial position

Total assets at the end of the six months ended June 30, 2023 decreased by 6,160,702 thousand yen from the end of the previous fiscal year to 57,704,497 thousand yen. This was mainly because of a decrease of 12,060,426 thousand yen in trade and other receivables, despite an increase of 5,940,923 thousand yen in cash and cash equivalents.

Liabilities decreased by 5,139,860 thousand yen from the end of the previous fiscal year to 26,683,873 thousand yen. This was mainly because of a decrease of 2,325,030 thousand yen in income taxes payable.

Equity decreased by 1,020,841 thousand yen from the end of the previous fiscal year to 31,020,624 thousand yen. This was mainly because of a decrease of 729,014 thousand yen in retained earnings due to the recording of loss.

2) Analysis of status of cash flows

Cash and cash equivalents for the six months ended June 30, 2023 increased by 5,940,923 thousand yen from the end of the previous fiscal year to 11,188,589 thousand yen.

Status of cash flows and related factors during the six months ended June 30, 2023 are described below.

(Cash flows from operating activities)

Cash flows from operating activities resulted in a cash inflow of 8,769,521 thousand yen (compared with an outflow of 492,704 thousand yen in the same period of the previous fiscal year). This was mainly due to the recording of decrease in trade and other receivables of 12,060,426 thousand yen, despite a decrease in income taxes payable of 2,316,431 thousand yen.

(Cash flows from investing activities)

Cash flows from investing activities resulted in a cash outflow of 797,543 thousand yen (a 25,882,379 thousand yen decrease in outflow year on year). This was mainly due to purchase of property, plant and equipment of 547,145 thousand yen.

(Cash flows from financing activities)

Cash flows from financing activities resulted in a cash outflow of 2,301,949 thousand yen (compared with an inflow of 21,557,472 thousand yen in the same period of the previous fiscal year). This was mainly due to decrease in short-term borrowings of 500,000 thousand yen and repayments of long-term borrowings of 1,120,000 thousand yen.

(3) Explanation of Consolidated Financial Forecasts and Other Forward-looking Information

The Company's key indices are as shown in the table below.

【Key indices】

	Results for the full year ended December 31, 2021	Results for the six months ended June 30, 2022	Results for the full year ended December 31, 2022	Results for the six months ended Jun 30, 2023	Forecasts for the full year ending December 31, 2023
	2021/Jan ~ 2021/Dec	2022/Jan ~ 2022/Jun	2022/Jan ~ 2022/Dec	2023/Jan ~ 2023/Jun	2023/Jan ~ 2023/Dec
Capital Expenditures (JPY millions)	1,300	3,088	3,913	617	2,038
Depreciation Expense (JPY millions)	633	746	1,973	1,221	2,211
Research and Development Expenses (JPY millions)	1,654	1,154	2,915	1,506	3,830
Year-end headcount (people)	177	692	680	704	736

(Notes) 1. The amount that will actually be paid is shown for capital expenditures.
2. Capital Expenditures of fiscal year ended December 31, 2021 includes advance payments (644 million yen) for the purchase of the land.
3. The Group has adopted International Financial Reporting Standards (IFRS) from the results for the first quarter of the fiscal year ended December 31,2022, and major management indicators for the Group as a whole are listed.

The Company announced a new Mid-Term Management Targets on March 25, 2021 for the period from the fiscal year ended March 31, 2021 to the fiscal year ending March 31, 2026. Specifically, the Company anticipates 4 or more new therapeutic drugs (not including diagnostics) to be launched (approved), 32 or more programs to be in clinical development, and 160 or more programs to be in preclinical development, by the end of FY2026. In order to fully support and promote these targets, the Company will continue to actively expand through the hiring of highly skilled and talented professionals. In addition, in order to realize our goal of being a global "Drug Discovery Powerhouse", the Company will continue to expand our partnership network and our leading position as the hub in the global peptide-based drug discovery ecosystem (*1).

Mid-Term Targets by the end of FY2026		**As of June 30, 2023**
(1) New drugs*2 launched (approved)	4 or more	0
(2) Number of clinical programs	32 or more	5
(3) Number of preclinical drug discovery programs	160 or more	122
(4) Number of employees	220 or more	208
(5) Establishing foundation as a "Drug Discovery Powerhouse"		

*1 Mid-Term Targets on a non-consolidated basis.

*2 Diagnostic agents and products other than therapeutics are not included.

Regarding the 5th target, with the aim to solidify PeptiDream's position and reputation as a global "Drug Discovery Powerhouse", we will particularly focus our efforts on the following five initiatives:

① To further lead the expansion of the global peptide-based drug discovery eco-system and our partnership network through expanding our role as the central hub.

② To continue to expand the number of licensees of our proprietary PDPS technology and its position as "the most widely-used peptide-based drug discovery platform in the world".

③ To create a healthy, safe, and diverse work environment where all employees can maximize their abilities, have equal opportunities, and be considered a "best place to work"

④ To strive toward a "transparent, responsive, and balanced corporate governance structure", ensure the highest business ethical standards, and maintain a continuous and open dialogue with all internal and external stakeholders.

⑤ To promote operational efficiency for the sustainable growth of society, minimize our environmental impact with a focus on water, waste, and energy efficiency, and become "carbon neutral" in our operations by 2026.

2. Condensed Quarterly Consolidated Financial Statements and Primary Notes

(1) Condensed Quarterly Consolidated Statements of Financial Position

(Thousands of yen)

	As of December 31, 2022	As of June 30, 2023
Assets		
Current assets		
Cash and cash equivalents	5,247,665	11,188,589
Trade and other receivables	16,589,145	4,528,719
Other financial assets	6,243	6,244
Inventories	2,678,699	2,645,131
Income taxes receivable	—	327,735
Other current assets	550,958	451,296
Total current assets	25,072,713	19,147,716
Non-current assets		
Property, plant and equipment	18,125,415	17,567,853
Goodwill	8,370,677	8,370,677
Intangible assets	2,232,554	2,167,756
Investments accounted for using equity method	399,728	305,891
Other financial assets	6,122,214	6,633,554
Deferred tax assets	3,435,235	3,395,766
Retirement benefit asset	65,441	67,443
Other non-current assets	41,218	47,836
Total non-current assets	38,792,486	38,556,781
Total assets	63,865,200	57,704,497

	As of December 31, 2022	As of June 30, 2023
Liabilities and equity		
Liabilities		
Current liabilities		
Trade and other payables	4,080,097	2,919,285
Borrowings	2,690,653	2,193,246
Other financial liabilities	344,882	254,903
Income taxes payable	2,325,030	—
Provisions	27,649	18,150
Contract liabilities	669,757	1,082,868
Other current liabilities	892,332	548,096
Total current liabilities	11,030,403	7,016,551
Non-current liabilities		
Borrowings	18,357,797	17,260,359
Other financial liabilities	2,327,082	2,294,335
Retirement benefit liability	108,450	112,627
Total non-current liabilities	20,793,330	19,667,321
Total liabilities	31,823,734	26,683,873
Equity		
Share capital	3,956,738	3,956,738
Capital surplus	4,524,436	4,498,562
Treasury shares	(607,334)	(1,085,546)
Retained earnings	23,848,337	23,119,323
Other components of equity	319,287	531,546
Total equity attributable to owners of parent	32,041,465	31,020,624
Total equity	32,041,465	31,020,624
Total liabilities and equity	63,865,200	57,704,497

(2) Condensed Quarterly Consolidated Statements of Profit or Loss

Six months ended June 30, 2022 and June 30, 2023

(Thousands of yen, unless otherwise stated)

	Six months ended June 30, 2022	Six months ended June 30, 2023
Revenue	5,024,397	9,426,049
Cost of sales	3,109,783	5,464,694
Gross profit	1,914,613	3,961,355
Selling, general and administrative expenses	2,413,884	3,429,071
Research and development expenses	1,163,717	1,506,241
Other income	518	3,939
Other expenses	3,227	16,079
Operating profit (loss)	(1,665,696)	(986,098)
Finance income	250,800	103,153
Finance costs	66,104	124,756
Share of profit (loss) of investments accounted for using equity method	(109,972)	(103,231)
Profit (loss) before tax	(1,590,972)	(1,110,932)
Income tax expense	(458,721)	(381,918)
Profit (loss)	(1,132,251)	(729,014)
Profit (loss) attributable to:		
Owners of parent	(1,132,251)	(729,014)
Profit (loss)	(1,132,251)	(729,014)
Earnings (loss) per share		
Basic earnings (loss) per share (Yen)	(8.72)	(5.62)
Diluted earnings (loss) per share (Yen)	(8.72)	(5.62)

(3) Condensed Quarterly Consolidated Statements of Comprehensive Profit or Loss

Six months ended June 30, 2022 and June 30, 2023

(Thousands of yen)

	Six months ended June 30, 2022	Six months ended June 30, 2023
Profit (loss)	(1,132,251)	(729,014)
Other comprehensive income		
Items that will not be reclassified to profit or loss:		
Financial assets measured at fair value through other comprehensive income	433,171	212,258
Total of items that will not be reclassified to profit or loss	433,171	212,258
Other comprehensive income	433,171	212,258
Comprehensive income	(699,080)	(516,755)
Comprehensive income attributable to:		
Owners of parent	(699,080)	(516,755)
Comprehensive income	(699,080)	(516,755)

(Note) The above statement items are disclosed net of tax.

(4) Condensed Quarterly Consolidated Statements of Changes in Equity

Six months ended June 30, 2022

(Thousands of yen)

	Equity attributable to owners of parent						Total equity
	Share capital	Capital surplus	Treasury shares	Retained earnings	Other components of equity	Total equity attributable to owners of parent	
Balance at January 1, 2022	3,956,738	4,452,358	(620,123)	16,372,687	1,188,589	25,350,250	25,350,250
Profit (loss)	–	–	–	(1,132,251)	–	(1,132,251)	(1,132,251)
Other comprehensive income	–	–	–	–	433,171	433,171	433,171
Total comprehensive income	–	–	–	(1,132,251)	433,171	(699,080)	(699,080)
Purchase of treasury shares	–	–	(87)	–	–	(87)	(87)
Disposal of treasury shares	–	–	12,956	–	–	12,956	12,956
Share-based payment transactions	–	(856)	–	–	–	(856)	(856)
Total transactions with owners	–	(856)	12,868	–	–	12,012	12,012
Balance at June 30, 2022	3,956,738	4,451,502	(607,255)	15,240,435	1,621,761	24,663,182	24,663,182

Six months ended June 30, 2023

(Thousands of yen)

	Equity attributable to owners of parent						Total equity
	Share capital	Capital surplus	Treasury shares	Retained earnings	Other components of equity	Total equity attributable to owners of parent	
Balance at January 1, 2023	3,956,738	4,524,436	(607,334)	23,848,337	319,287	32,041,465	32,041,465
Profit (loss)	—	—	—	(729,014)	—	(729,014)	(729,014)
Other comprehensive income	—	—	—	—	212,258	212,258	212,258
Total comprehensive income	—	—	—	(729,014)	212,258	(516,755)	(516,755)
Purchase of treasury shares	—	—	(513,842)	—	—	(513,842)	(513,842)
Disposal of treasury shares	—	—	35,630	—	—	35,630	35,630
Share-based payment transactions	—	(25,873)	—	—	—	(25,873)	(25,873)
Total transactions with owners	—	(25,873)	(478,212)	—	—	(504,085)	(504,085)
Balance at June 30, 2023	3,956,738	4,498,562	(1,085,546)	23,119,323	531,546	31,020,624	31,020,624

(5) Condensed Quarterly Consolidated Statements of Cash Flows

(Thousands of yen)

	Six months ended June 30, 2022	Six months ended June 30, 2023
Cash flows from operating activities		
Profit (loss) before tax	(1,590,972)	(1,110,932)
Depreciation and amortization	787,387	1,221,011
Interest and dividend income	(1,049)	(5,792)
Interest expenses	66,104	116,872
Foreign exchange loss (gain)	(241,433)	(270,895)
Share of loss (profit) of investments accounted for using equity method	109,972	103,231
Decrease (increase) in trade and other receivables	(135,091)	12,060,426
Decrease (increase) in inventories	(210,141)	33,568
Increase (decrease) in trade and other payables	597,710	(1,186,090)
Increase (decrease) in defined benefit asset and liability	5,204	2,175
Other	215,635	208,303
Subtotal	(396,674)	11,171,878
Interest and dividends received	1,049	5,792
Interest paid	(51,805)	(91,717)
Income taxes paid	(56,233)	(2,316,431)
Income taxes refund	10,958	—
Net cash provided by (used in) operating activities	(492,704)	8,769,521
Cash flows from investing activities		
Payments for purchases of securities	—	(200,000)
Payments for acquisition of subsidiaries	(23,460,335)	—
Collection of loans receivable	65,926	3,121
Purchase of property, plant and equipment	(3,218,559)	(547,145)
Purchase of intangible assets	(58,228)	(53,632)
Other	(8,724)	112
Net cash provided by (used in) investing activities	(26,679,922)	(797,543)
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	—	(500,000)
Proceeds from long-term borrowings	22,400,000	—
Repayments of long-term borrowings	(560,000)	(1,120,000)
Payments of borrowing fee	(212,800)	—
Repayments of lease liabilities	(69,639)	(167,395)
Purchase of treasury shares	(87)	(514,554)
Net cash provided by (used in) financing activities	21,557,472	(2,301,949)
Effect of exchange rate change on cash and cash equivalents	241,433	270,895
Net increase (decrease) in cash and cash equivalents	(5,373,721)	5,940,923
Cash and cash equivalents at beginning of period	11,746,529	5,247,665
Cash and cash equivalents at end of period	6,372,808	11,188,589

(6) Notes to Condensed Quarterly Consolidated Financial Statements

(Notes regarding going concern assumption)

Not applicable.

(Notes in case of significant changes in equity)

Not applicable.

(Segment information)

(1) Outline of reportable segments

On March 28, 2022 in the three months ended March 31, 2022, the Company acquired the entire shares of a newly established company, PDRadiopharma Inc., which succeeded the radiopharmaceutical business of Fujifilm Toyama Chemical Co., Ltd. through an absorption-type split. As a result of this transaction, effective from the second quarter ended June 30, 2022, the Board of Directors of the Company is monitoring the two reportable segments of the Drug Discovery and Development Business Segment and the Radiopharmaceutical Business Segment to determine the allocation of management resources and evaluate financial results. Therefore, from the second quarter ended June 30, 2022, the Group reorganizes its reportable segments to the above two segments of the Drug Discovery and Development Business Segment and the Radiopharmaceutical Business Segment.

[Description of reportable segments]

Reportable Segment	Business description
Drug Discovery and Development Business Segment (Collaboration, PDPS Licensing, In-House/Strategic)	The Drug discovery and development business centers around the use of PDPS, the Company's proprietary drug discovery platform system. This segment engages primarily in the discovery, research and development of new therapeutics and diagnostics through collaborative research and development with pharmaceutical companies in Japan and overseas, PDPS technology licensing, and in-house/strategic partnering and compound licensing.
Radiopharmaceutical Business Segment	The Radiopharmaceutical business engages in the research and development, manufacturing, and sale of: diagnostic radiopharmaceuticals (diagnostic agents for SPECT and PET) used to examine blood flow of the heart and brain and bone metastasis of cancers; and therapeutic radiopharmaceuticals that address unmet medical needs, such as pheochromocytoma.

(2) Segment revenues and performance

Revenues and performance for each of the Group's reportable segments were as follows. Inter-segment revenues are based on prevailing market prices.

Six months ended June 30, 2022 (January 1, 2022 to June 30, 2022)

(Thousands of yen)

	Reportable Segment			Adjustment	Consolidated Statement
	Drug Discovery and Development Business Segment	Radiopharmaceutical Business Segment	Total		
Revenue					
External revenue	1,118,323	3,906,073	5,024,397	—	5,024,397
Inter-segment revenue	—	—	—	—	—
Total	1,118,323	3,906,073	5,024,397	—	5,024,397
Segment profit (loss)	(1,389,094)	114,020	(1,275,073)	—	(1,275,073)
(Adjustments)					
Business combination-related expenses (Note 1)					390,622
Operating profit (loss)					(1,665,696)
Finance income					250,800
Finance costs					66,104
Share of profit (loss) of associates accounted for using the equity method					(109,972)
Profit (loss) before income taxes					(1,590,972)

(Note 1) Business combination-related expenses include acquisition-related expenses of 368,122 thousand yen and amortization expenses of 22,500 thousand yen for intangible assets newly acquired through the business combination.

Six months ended June 30, 2023 (January 1, 2023 to June 30, 2023)

(Thousands of yen)

	Reportable Segment			Adjustment	Consolidated Statement
	Drug Discovery and Development Business Segment	Radiopharmaceutical Business Segment	Total		
Revenue					
External revenue	1,461,366	7,964,683	9,426,049	—	9,426,049
Inter-segment revenue	—	29,910	29,910	(29,910)	—
Total	1,461,366	7,994,593	9,455,959	(29,910)	9,426,049
Segment profit (loss)	(1,168,739)	227,641	(941,098)	—	(941,098)
(Adjustments)					
Business combination-related expenses (Note 1)					45,000
Operating profit (loss)					(986,098)
Finance income					103,153
Finance costs					124,756
Share of profit (loss) of associates accounted for using the equity method					(103,231)
Profit (loss) before income taxes					(1,110,932)

(Note 1) Amortization expenses of 45,000 thousand yen for intangible assets newly acquired through the business combination.