NB: this is a summary translation of the press release original drafted in Japanese for the disclosure required in compliance with the TSE regulations.

Non-consolidated Financial Results for the Three Months Ended March 31, 2024 [Japanese GAAP]

May 10, 2024

Company name: Oncolys BioPharma Inc.
Stock exchange listing: Tokyo Stock Exchange
Code number: 4588
URL: https://www.oncolys.com
Representative: Yasuo Urata, President & CEO
Contact: Kohei Hata, Executive Officer
Email: oncolys_information@oncolys.com
Scheduled date of filing quarterly securities report: May 10, 2024
Scheduled date of commencing dividend payments: —
Availability of supplementary briefing material on quarterly financial results: No
Schedule of quarterly financial results briefing session: No

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

1. Financial Results for the Three Months Ended March 31, 2024 (January 1, 2024 to March 31, 2024)

(1) Operating Results (% indicates changes from the previous corresponding period.)

	Net sales		Operating profit		Ordinary profit		Profit	
Three months ended	Million yen	%	Million yen	%	Million yen	%	Million yen	%
March 31, 2024	–	(100.0)	(378)	–	(363)	–	(364)	–
March 31, 2023	35	(81.9)	(325)	–	(323)	–	(323)	–

	Basic earnings per share	Diluted earnings per share
Three months ended	Yen	Yen
March 31, 2024	(18.24)	–
March 31, 2023	(18.69)	–

(2) Financial Position

	Total assets	Net assets	Equity ratio
	Million yen	Million yen	%
As of March 31, 2024	2,143	1,748	81.2
As of December 31, 2023	2,040	1,474	71.5

(Reference) Equity: As of March 31, 2024: ¥1,740 million
As of December 31, 2023: ¥1,459 million

2. 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, 2023	–	0.00	–	0.00	0.00
Fiscal year ending December 31, 2024	–				
Fiscal year ending December 31, 2024 (Forecast)		0.00	–	0.00	0.00

(Note) Revision to the forecast for dividends announced most recently: No

3. Financial Results Forecast for the Fiscal Year Ending December 31, 2024 (January 1, 2024 to December 31, 2024)

Financial results forecast is not disclosed due to the difficulty of making reasonable estimates. For details, please see "1. Qualitative Information on Quarterly Financial Results for the Period under Review (3) Explanation of Financial Results Forecast and Other Forward-looking Information on page 2 of the supplementary material.

*** Notes:**

(1) Accounting policies adopted specially for the preparation of quarterly financial statements: No

(2) Changes in accounting policies, changes in accounting estimates and retrospective restatement
1) Changes in accounting policies due to the revision of accounting standards: No
2) Changes in accounting policies other than 1) above: No
3) Changes in accounting estimates: No
4) Retrospective restatement: No

(3) Total number of issued shares (common shares)
1) Total number of issued shares at the end of the period (including treasury shares):
March 31, 2024: 20,865,200 shares
December 31, 2023: 19,717,100 shares

2) Total number of treasury shares at the end of the period:
March 31, 2024: 88,738 shares
December 31, 2024: 88,738 shares

3) Average number of shares during the period:
Three months ended March 31, 2024: 19,971,483 shares
Three months ended March 31, 2023: 17,319,139 shares

* These quarterly financial results are outside the scope of quarterly review by certified public accountants or an audit corporation.

* Explanation of the proper use of financial results forecast and other notes

(Note regarding forward-looking statements, etc.)

The earnings forecasts and other forward-looking statements herein are based on information available to the Company at the time of the release of these materials and certain assumptions deemed reasonable, and do not represent a commitment from the Company that they will be achieved. In addition, actual financial results, etc. may differ significantly due to a wide range of factors. For the assumptions used in forecasting financial results and notes regarding the use of financial forecasts, etc., please see "1. Qualitative Information on Quarterly Financial Results for the Period under Review (3) Explanation of Financial Results Forecast and Other Forward-looking Information" on page 2 of the supplementary material.

Table of Contents

1. Qualitative Information on Quarterly Financial Results for the Period under Review 2
(1) Explanation of Business Results 2
(2) Explanation of Financial Position 2
(3) Explanation of Financial Results Forecast and Other Forward-looking Information 2

2. Quarterly Financial Statements and Primary Notes 3
(1) Quarterly Balance Sheets 3
(2) Quarterly Statements of Income 5
(3) Notes to Quarterly Financial Statements 6
(Notes on going concern assumption) 6
(Notes in the case of significant changes in shareholders' equity) 6
(Segment information, etc.) 6
(Revenue recognition) 6
(Significant subsequent events) 6

3. Supplemental Information 8
(1) Research and development activities 8

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

(1) Explanation of Business Results

During the three months ended March 31, 2024, the Japanese economy showed signs of improvement, such as a recovery in inbound demand and historic wage increases mainly at major companies. Against this background, a decision was made at the Bank of Japan Monetary Policy Meeting to raise interest rates for the first time in 17 years, shifting from the negative interest rate policy. On the other hand, with the impact on the global economy from potential risks, such as the prolongation of Russia's invasion of Ukraine, the conflict in Israel, and trends in the U.S. presidential election, the volatile situation overseas seems likely to continue.

Under these circumstances, the Company has been pursuing a vision of "Providing new options to future cancer treatments, and leaving our footprint in the history of cancer treatment through those achievements," thus striving to increase managerial efficiency and actively expand research, development, and business activities.

In particular, the Company is promoting research, development, and business activities with a focus on Telomelysin (OBP-301), a virotherapy for cancer. In addition, concerning LINE-1 inhibitor OBP-601 (censavudine), Transposon Therapeutics, Inc. (hereinafter "Transposon") is conducting clinical trials at its own expense based on a license agreement and proceeding with business activities.

For details of the Company's activities, please refer to "3. Supplemental Information (1) Research and development activities."

For the three months ended March 31, 2024, the Company recorded no business income (net sales of ¥35,000 thousand in the same period of the previous fiscal year), and operating loss was ¥378,872 thousand (operating loss of ¥325,578 thousand in the same period of the previous fiscal year). In addition, the Company recorded interest income of ¥518 thousand and foreign exchange gains of ¥18,668 thousand as non-operating income, and interest expenses of ¥1,140 thousand and share issuance costs of ¥2,466 thousand as non-operating expenses, resulting in ordinary loss of ¥363,292 thousand (ordinary loss of ¥323,092 thousand in the same period of the previous fiscal year). As a result, net loss was ¥364,233 thousand (net loss of ¥323,691 thousand in the same period of the previous fiscal year).

(2) Explanation of Financial Position

Assets at the end of the first quarter of the fiscal year under review were ¥2,143,742 thousand (5.1% increase compared with the end of the previous fiscal year), owing partly to an increase in advance payments - other. Liabilities were ¥395,583 thousand (30.2% decrease compared with the end of the previous fiscal year), owing partly to a decrease in accounts payable - other. Net assets were ¥1,748,158 thousand (18.6% increase compared with the end of the previous fiscal year), owing to capital increase through issuance of new shares.

(3) Explanation of Financial Results Forecast and Other Forward-looking Information

The Company still has a small stable revenue base, and our financial results fluctuate greatly depending on the presence or absence of milestone revenue payments generated from our domestic distribution partnership agreement for Telomelysin, achieving the development event of LINE-1 inhibitor OBP-601, for which we have a license agreement with Transposon, and that company's IPO, or M&A and other corporate action that generates milestone revenue payments.

For these reasons, we believe that it is difficult to calculate an appropriate and reasonable figure for the earnings forecast at this time due to the many undetermined factors that will affect our business performance, and therefore, we refrain from disclosing the forecast. In addition, since the Company manages its performance annually, the Company omits the description of its earnings forecasts for the second quarter (cumulative).

1. Quarterly Financial Statements and Primary Notes

(1) Quarterly Balance Sheets

(Thousand yen)

	As of December 31, 2023	As of March 31, 2024
Assets		
Current assets		
Cash and deposits	1,532,844	1,478,109
Supplies	5,342	5,192
Advance payments – other	282,602	371,698
Prepaid expenses	33,338	28,741
Accounts receivable – other	51,781	111,982
Consumption taxes receivable	49,964	60,828
Other	9	0
Total current assets	1,955,883	2,056,553
Non-current assets		
Property, plant and equipment		
Buildings	3,128	3,128
Accumulated depreciation	(3,128)	(3,128)
Buildings, net	–	–
Machinery and equipment	924	924
Accumulated depreciation	(924)	(924)
Machinery and equipment, net	–	–
Tools, furniture and fixtures	66,967	66,967
Accumulated depreciation	(66,967)	(66,967)
Tools, furniture and fixtures, net	–	–
Total property, plant and equipment	–	–
Investments and other assets		
Shares of subsidiaries and associates	20,936	20,936
Investments in capital	100	100
Long-term loans receivable from subsidiaries and associates	42,549	45,399
Lease and guarantee deposits	20,990	20,750
Long-term prepaid expenses	135	0
Other	4	4
Total investments and other assets	84,714	87,189
Total non-current assets	84,714	87,189
Total assets	2,040,598	2,143,742

(Thousand yen)

	As of December 31, 2023	As of March 31, 2024
Liabilities		
Current liabilities		
Short-term loans payable	127,776	124,990
Lease obligations	7,565	7,070
Accounts payable – other	193,354	60,460
Accrued expenses	19,119	18,650
Income taxes payable	18,844	8,111
Deposits received	11,870	13,203
Total current liabilities	378,531	232,486
Non-current liabilities		
Long-term loans payable	161,100	138,884
Lease obligations	18,729	17,350
Provision for retirement benefits	8,140	6,862
Total non-current liabilities	187,969	163,097
Total liabilities	566,500	395,583
Net assets		
Shareholders' equity		
Capital stock	3,623,165	3,945,814
Capital surplus		
Legal capital surplus	1,209,590	1,532,239
Total capital surpluses	1,209,590	1,532,239
Retained earnings		
Other retained earnings		
Retained earnings brought forward	(3,373,199)	(3,737,433)
Total retained earnings	(3,373,199)	(3,737,433)
Treasury shares	(142)	(142)
Total shareholders' equity	1,459,413	1,740,478
Share acquisition rights	14,683	7,680
Total net assets	1,474,097	1,748,158
Total liabilities and net assets	2,040,598	2,143,742

(2) Quarterly Statements of Income

Three Months Ended March 31

(Thousand yen)

	For the three months ended March 31, 2023	For the three months ended March 31, 2024
Net sales	35,000	–
Cost of sales	32,433	–
Gross profit	2,566	–
Selling, general and administrative expenses	328,145	378,872
Operating loss	(325,578)	(378,872)
Non-operating income		
Interest income	149	518
Foreign exchange gains	3,192	18,668
Total non-operating income	3,341	19,187
Non-operating expenses		
Interest expenses	855	1,140
Share issuance costs	–	2,466
Total non-operating expenses	855	3,607
Ordinary loss	(323,092)	(363,292)
Extraordinary income		
Gain on sale of non-current assets	136	–
Total extraordinary income	136	–
Loss before income taxes	(322,955)	(363,292)
Income taxes - current	736	940
Total income taxes	736	940
Loss	(323,691)	(364,233)

(3) Notes to Quarterly Financial Statements

(Notes on going concern assumption)

There is no relevant information.

(Notes in the case of significant changes in shareholders' equity)

The Company received payments for the exercise of share acquisition rights during the first quarter of the fiscal year under review. As a result, capital stock and legal capital surplus each increased by ¥322,649 thousand during the three months ended March 31, 2024. At the end of the period, capital stock was ¥3,945,814 thousand and legal capital surplus was ¥1,532,239 thousand.

(Segment information, etc.)

[Segment information]

I. For the three months ended March 31, 2023

The information is omitted, as the Company consists of a single segment of the drug discovery business.

II. For the three months ended March 31, 2024

The information is omitted, as the Company consists of a single segment of the drug discovery business.

(Revenue recognition)

Disaggregation of revenue from contracts with customers

(Thousand yen)

	For the three months ended March 31, 2023	For the three months ended March 31, 2024
Goods / Services transferred at a point in time	35,000	–
Goods / Services transferred over time	–	–
Revenue from contracts with customers	35,000	–
Revenue from other sources	–	–
Net sales to outside customers	35,000	–

(Significant subsequent events)

1. Issuance of new shares as restricted stock remuneration

At the Board of Directors meeting held on March 15, 2024, the Company resolved to issue new shares as restricted stock remuneration. The payment procedure was completed on April 2, 2024.

(1) Outline of the share issuance

1.	Class and number of shares issued	96,400 shares of common stock
2.	Allocation method for shares issued	Third-party allocation
3.	Amount of provision for shares	617 yen per share issued
4.	Total amount of provision	59,478,800 yen
5.	Details and price of assets contributed in kind	59,478,800 yen as monetary remuneration receivables paid by the Company to the employees of the Company listed in 6. below for the purpose of investment, based on the resolution by the Company at the Board of Directors meeting held on March 15, 2024 (617 yen per share issued as monetary remuneration receivables for investment)
6.	Allottees	Employees of the Company: 96,400 shares for 27 employees

7.	Provision date of assets to be exchanged for shares issued	April 2, 2024
8.	Amount of increase in capital stock and in legal capital surplus	29,787,600 yen increase in capital stock 29,691,200 yen increase in legal capital surplus
9.	Period of remuneration	From April 2, 2024, to May 31, 2026

(2) Purpose and reason for share issuance

The Company introduced the stock remuneration system under which restricted stock is granted (hereafter referred to as the "System") to have the officers of the Company and its subsidiaries share the merits and risks of stock price movements with our shareholders and gain a stronger desire to contribute to stock price increase and corporate value improvement. At the Board of Directors meeting held on March 15, 2024, the Company resolved to pay a total of 59,478,800 yen as monetary remuneration receivables for 27 of the Company's employees (hereafter collectively referred to as the "Allotees") as restricted stock remuneration for the period from April 2, 2024, to May 31, 2026, and to allocate 96,400 shares of common stock of the Company as specified restricted stock remuneration through granting under the method of investment in kind of all the Allottees' relevant monetary remuneration receivables.

The restricted stock transfer will be implemented for 2.1 years in order to achieve the purpose of the System, which is to have the officers of the Company and its subsidiaries share the merits and risks of stock price movements with our shareholders and gain a stronger desire to contribute to stock price increase and corporate value improvement.

3. Supplemental Information

(1) Research and development activities

Research and development expenses of the Company in the three months ended March 31, 2024 totaled ¥222,142 thousand for the drug discovery business. The status of research and development activities during the three months ended March 31, 2024 is as follows.

(1) Research and development structure

As of March 31, 2024, 21 persons belonged to research and development department, accounting for 55.3% of the total number of employees.

(2) Research and development and business activities

The Company promoted research and development, and business activities centered on the following projects.

1) Activities related to Telomelysin (OBP-301) (International Nonproprietary Name: suratadenoturev) virotherapy for cancer

The Company is conducting a "Phase II clinical trial in combination with radiation therapy for esophageal cancer" for Telomelysin, for which the Ministry of Health, Labour and Welfare has granted "SAKIGAKE designation" for regenerative medicine products in Japan, and disclosed top-line data through a technical committee meeting in October 2023. Based on the results, we plan to conduct negotiations with PMDA with a view toward applying for new drug approval for Telomelysin in Japan in 2024. In terms of supply for Telomelysin, we have been making progress on commercial scale viral production development, and in November 2023 commenced manufacturing for process validation, with plans for commercial manufacturing in 2024. In addition, in December 2023, the Company entered into an agreement with MITSUI-SOKO HOLDINGS Co., Ltd. (hereinafter "MITSUI-SOKO HD"), for a domestic Telomelysin manufacturing facility. Furthermore, we have been working to establish our own manufacturing and sales system for Telomelysin, and in February 2024 signed an agreement with FUJIFILM Toyama Chemical Co., Ltd. (hereinafter "FUJIFILM Toyama Chemical") to collaborate with Telomelysin sales. As a result, we have established a value chain in which Telomelysin is formulated by Belgium-based Henogen SA, imported into Japan, processed into final packaging at the domestic manufacturing facility of MITSUI-SOKO HD, and delivered to medical facilities by FUJIFILM Toyama Chemical.

Meanwhile, in overseas, in December 2023, the Company signed an agreement with Cornell University, which in turn signed an agreement with Merck Sharp & Dohme LLC. (hereinafter "MSD") to establish a joint development system for Telomelysin and the immune checkpoint inhibitor pembrolizumab for the treatment of gastric cancer in the U.S. This is a Phase II investigator-initiated clinical trial, under which administration is planned to begin in 2024, with the Company and MSD equally sharing research and development expenses.

Currently, Telomelysin is undergoing the following four clinical trials in Japan and overseas, including the clinical trial for which enrollment has been completed:

i) Phase II clinical trial in combination with radiation therapy for esophageal cancer;
ii) Phase II investigator-initiated clinical trial in combination with pembrolizumab, an anti-PD-1 antibody, for gastric cancer/gastroesophageal junction cancer;
iii) Phase II investigator-initiated clinical trial of second-line treatment in combination with immune checkpoint inhibitors for gastric cancer/gastroesophageal junction cancer; and
iv) Phase I investigator-initiated clinical trial in combination with chemoradiotherapy for esophageal cancer

Regarding the above i) "Phase II clinical trial in combination with radiation therapy for esophageal cancer," trials are ongoing based on the "SAKIGAKE designation" of April 2019 at 17 clinical trial sites around Japan, and we disclosed top-line data in October 2023. The principal results of the top-line data are as follows.

1. Efficacy

The primary endpoint of "local complete response rate" (L-CR rate) was 41.7% (round off to the first decimal place; the same shall apply hereinafter), as evaluated by the Endoscope Central Judgment Committee. It was confirmed that the result was higher than the efficacy threshold of 30.2%, which was indicated in the protocol beforehand. In addition, the secondary endpoint of "local remarkable response rate" (L-RR rate; the cases in which the primary lesion did not completely disappear but shrink remarkably) was 16.7% and "local response rate" including L-CR ([L-CR + L-RR] rate) was 58.3%.

Furthermore, the one-year survival rate at the time of data cut-off in this study was 71.4%, which exceeded the one-year survival rate in the radiotherapy alone of 57.4% in "The Japan Esophageal Society national registered data."

At the time of 18 months (78 weeks), the local response rate was 63.9% and the local complete response rate was 50.0%. In addition, although the total survival rate at the time of 18 months was 53%, the cancer survival rate was 70% and the cancer survival rate of patients with local response was 90%. These results suggest a possible increase in patient survival rates from the effect on esophageal cancer locations, and improvement was recognized in 71% of patients with symptoms of dysphagia, which is included in the assessment of QoL (Quality of Life) for esophageal cancer patients.

2. Safety

The main side-effects related to Telomelysin included fever of 51.4% and the reduction of lymphocyte count or lymphopenia of 48.6%, both of which were temporary change.

We have obtained the agreement of medical experts and biological statisticians on the interpretation of the result of this clinical trial.

Based on the results of the above-mentioned top-line data, the Company is currently in consultations with PMDA regarding non-clinical trials, clinical trials, manufacturing, etc., to submit a new drug application of Telomelysin in Japan in 2024.

Regarding the supply chain for Telomelysin, the Company is currently moving forward on manufacturing development for commercial production at Henogen SA (Belgium), a company in the Thermo Fisher Group, with a view to submitting a new drug application for Telomelysin. We began process validation in November 2023 and plan to start commercial manufacturing in 2024, when the new drug application will be submitted. In addition, in December 2023, we concluded an agreement with MITSUI-SOKO HD which will serve as a domestic manufacturing base responsible for final packaging and storage, etc. of Telomelysin formulations, as they possess extensive experience in the logistics field related to advanced medicine, including handling of regenerative medical products, as well as knowledge and experience in ensuring quality in regenerative medical products. In June 2023, we signed a contract with Eurofins Analytical Science Laboratories (Kyoto City), and together with our Kobe Research Lab, we are starting to conduct validation quality tests necessary to make a final determination for shipment of Telomelysin. Furthermore, to efficiently deliver Telomelysin, which has been determined to be ready for final shipment, to medical facilities in Japan, we concluded a sales collaboration agreement with FUJIFILM Toyama Chemical in February 2024. We expect to provide Telomelysin to medical facilities through medical products companies designated by FUJIFILM Toyama Chemical.

Through these agreements, the Company will work to establish a distribution system capable of providing a stable, high-quality supply of Telomelysin along the entire supply chain, from overseas to medical institutions in Japan.

The Company will be positioned as a manufacturer and distributor shipping Telomelysin to Japan, regardless of whether we have a sales collaboration agreement with FUJIFILM Toyama Chemical. In addition to the regulatory review of the quality, efficacy, and safety of Telomelysin itself, its manufacturing and marketing is subject to review by the Tokyo Metropolitan Government for conformity to "GQP (Good Quality Practice)," and "GVP (Good Vigilance Practice)" and other requirements, and the Company plans to obtain approval for manufacture and sale of regenerative medical products.

In January 2024, the Company completed hiring for the three roles of marketing director, quality assurance manager, and safety management manager for manufacturing and marketing, and also established the Reliability Assurance Division. Looking forward, upon further developing a system that conforms with GQP and GVP, we intend to apply to the Tokyo Metropolitan Government for a license to manufacture and market regenerative medicine products by the time we apply for approval of Telomelysin, as we have the capacity to assume ultimate responsibility for quality assurance and safety control operations for the shipment of Telomelysin to the market.

Regarding the above ii) "Phase II investigator-initiated clinical trial in combination with pembrolizumab, an anti-PD-1 antibody, for gastric cancer/gastroesophageal junction cancer," administration began in May 2019 led by Cornell University in the U.S. with the goal of evaluating the efficacy and safety of Telomelysin and pembrolizumab, and was performed for the most advanced patients who have been treated in the past. Long-term survival has been confirmed in 3 of the 16 patients enrolled so far, and this result was deemed to satisfy the standard set for efficacy in the trial. The interim analysis results of this clinical trial were presented by Dr. Manish A. Shah of Cornell University in the U.S. at annual meetings of the American Society of Clinical Oncology in June 2023 (ASCO 2023) and the Society for Immunotherapy of Cancer in November 2023 (SITC 2023).

Regarding the above iii) “Phase II investigator-initiated clinical trial of second-line treatment in combination with immune checkpoint inhibitors for gastric cancer/gastroesophageal junction cancer,” Cornell University in the U.S. proposed the implementation of a new clinical trial and the payment of clinical trial expenses to MSD. after obtaining the prior agreement of the Company. In December 2023, agreements were concluded between the Company and Cornell University and between Cornell University and MSD, which established a joint development system. The Company will provide Telomelysin, and MSD will provide the immune checkpoint inhibitor pembrolizumab to Cornell University. In addition, the expenses for the clinical trial will be shared equally between the Company and MSD.

This clinical trial combines the use of Telomelysin and pembrolizumab as second-line treatment for patients with gastric/gastroesophageal junction cancer that is resilient to first-line treatment including anti- PD-1/PD-Li antibodies. If this second-line treatment for gastric cancer combining Telomelysin becomes established, it may provide a greater opportunity for major pharmaceutical companies that sell anti- PD-1/PD-Li antibodies to contribute to cancer treatment with their pharmaceutical products. Preparations are underway to begin administration under this clinical trial through IRB.

Regarding the above iv) “Phase I investigator-initiated clinical trial in combination with chemoradiotherapy for esophageal cancer,” NRG Oncology, an authoritative cancer research organization in the U.S., has been leading the trial, and administration began in December 2021 with the purpose of investigating the safety and efficacy of using Telomelysin in combination with chemoradiotherapy. This clinical trial is being conducted in six facilities within the U.S., and the enrollment of all six patients for the first stage has been completed, while in the second stage administration is underway. Thus far, there have been no reports of problematic side-effects. Telomelysin has been designated as an orphan drug for esophageal cancer in the U.S., and this clinical trial is being conducted on that basis. Therefore, the Company will be able to receive preferential treatment in the form of grants and tax credits for clinical research expenses. Furthermore, first-mover rights protection will be granted after the approval of Telomelysin in the U.S., during which market exclusivity is to be granted.

2) Activities related to OBP-601 (censavudine), a LINE-1 inhibitor

The Company licensed in OBP-601 from Yale University in 2006. From 2010 to 2014, it was licensed to Bristol-Myers Squibb Co. (hereinafter “BMS”), which conducted Phase IIb clinical trials as a treatment drug for HIV infection. The results demonstrated the non-inferiority of OBP-601 to existing drugs. BMS also obtained numerous clinical safety data for long-term OBP-601 toxicity studies and oncogenicity studies, but due to BMS’s change of strategy, resulting in withdrawal from the HIV field, the license agreement was terminated. Results of a study by Brown University of the U.S. then suggested that nucleic acid-based reverse transcriptase inhibitors (NRTIs) of HIV suppress the aberrant expression of a retrotransposons. Subsequent research confirmed that OBP-601, which has the same effect, has high brain translocability compared to other NRTIs and strongly suppresses the production of a retrotransposon by greatly inhibiting a reverse transcriptase called LINE-1.

In June 2020, we concluded a licensing agreement worth more than $300 million worldwide with Transposon which had been planning to apply OBP-601 to the treatment of intractable neurological diseases focusing on this mechanism. In November of the same year, Transposon achieved its first milestone.

Transposon is currently conducting two double-blind Phase IIa clinical trials that make use of placebos at numerous facilities, both in Europe and the U.S. One covers progressive supranuclear palsy (PSP), while the other is on amyotrophic lateral sclerosis (ALS), with the abnormal expression of the enzyme C9 ORF, and frontotemporal degeneration (FTD). In addition, in July 2023, administration began under a single-arm Phase IIa clinical trial in Europe for the treatment of Aicardi-Goutières Syndrome (AGS).

Administration to the first patient under the Phase IIa clinical trial for PSP began in November 2021, and enrollment of the target number of patients was concluded in August 2022. Transposon disclosed the main details of the trial as follows at the 18th Alzheimer's and Parkinson's Diseases Conference (AD/PD2024) in March 2024.

1) The clinical trials incorporated 42 PSP patients with an average age of 69 years and an average illness duration of 3.8 years.
2) In these double-blind trials, administration was conducted for 6 months, then administration was switched to 400 mg of OBP-601 for all patients and follow-up was provided for 6 months.
3) OBP-601 indicated tolerability for PSP patients, with a serious side effect of loss of consciousness (1 patient in the 100 mg group).
4) Regarding the reduction of neurofilament light chains (hereinafter “NfL”) in cerebrospinal fluid, continued reduction in the 400 mg administration group was indicated, but in the placebo group an increase over 24 weeks and then a reduction after switching to 400 mg administration in the follow-up period were indicated.
5) IL-6 indicated a similar change in cerebrospinal fluid.
6) OBP-601 slowed the worsening of symptoms measured on the Progressive Supranuclear Palsy Rating Scale

(PSPRS).

7) The clinical trials suggested that OBP-601 suppresses neurological damage from neuroinflammation and the progression of illness by suppressing Line-1 in the brain.

In addition, administration under the clinical trial for C9-ALS/FTD began in January 2022, and target enrollment was concluded in March 2023. We are now conducting a long-term follow-up study on the enrolled patients. To date, there have been no reports of safety problems that necessitate the termination of the trials. The main interim results of the trial after 24 weeks are as follows:

1) In the 24 weeks from the start of administration, OBP-601 suppressed a rise in values of Nfl, tau, UCHL1, YKL-40, and osteopontin in cerebrospinal fluid, which are biomarkers that reflect neurodegeneration, inflammatory neurodegeneration, and increased microglia activity.
2) Early clinical effects were recognized in Vital Capacity, which is a scale for objective assessment of respiratory function that correlates with ALS patient mortality.
3) Changes in the biomarkers this time suggest that OBP-601 can be utilized for Alzheimer's disease, as, like Alzheimer's disease, C9orF72-related ALS and FTD are known to indicate pathological findings in the central nervous system.

Furthermore, in July 2023, Transposon started administration under a new Phase IIa clinical trial for AGS, a genetic disorder that causes microcephaly and severe mental retardation, in Europe. To date, there have been no reports of safety problems that necessitate the termination of the trials.

These clinical trials on OBP-601 are proceeding entirely at Transposon's expense based on the license agreement. In addition, Transposon is carrying out business activities based on the license agreement and may grant sublicenses for OBP-01 to pharmaceutical companies and other third parties. If Transposon achieves business results, including sublicense agreements for OBP-01 with third parties, it will pass on a certain percentage of revenue it obtains from the sublicensees to the Company.

Transposon is a company that was established with the purpose of developing OBP-601. The Company therefore believes that the risk of Transposon suspending the development of OBP-601 due to a change in strategy is low and expects Transposon to achieve business results.

3) Activities related to next generation Telomelysin (OBP-702)

OBP-702 is a second-generation virotherapeutic drug with two anti-tumor effects, combining the "oncogene therapy" that uses a novel oncolytic virus that carries the powerful in vivo cancer suppressor gene p53 in the vector with the "oncolytic functions" of Telomelysin. A research group led by Professor Toshiyoshi Fujiwara of the Department of Gastroenterological Surgery, Transplant, and Surgical Oncology of Okayama University is conducting non-clinical trials on OBP-702, which was adopted as a grant program by the Japan Agency for Medical Research and Development (AMED). In particular, an experiment on gemcitabine-resistant pancreatic cancer cell lines using mouse models, OBP-702, used in combination with PD-L1 antibodies, exhibited stronger anti-tumor effects alone. It has also been shown to have a lethal effect on cancer associated fibroblasts (CAF), which are problematic in cancer therapy. It is expected that OBP-702 will be developed as a new treatment method for pancreatic cancer and other refractory cancers that are considered to be difficult to treat due to CAF. Development of OBP-702 will continue within the scope of the grant in order to concentrate management resources on Telomelysin, which we aim to submit for approval in 2024.

4) Activities related to OBP-2011 for the treatment of viral infectious diseases

Based on experimental outcomes, the Company assumes that OBP-2011 inhibits nucleocapsids, although the specific mechanism has not been clarified yet at this stage. It is speculated that OBP-2011 has a new mechanism that differs from the main mechanisms of polymerase and protease inhibition already approved for the treatment of coronaviruses, and data indicated that its effectiveness is not influenced by such factors as virus mutation. However, it has become necessary to revise the development policy as the hurdle has been raised for obtaining approval for our proposed COVID-19 treatment, at the same time as changes have emerged in the external environment, such as the reduced urgency due to the launch of multiple therapeutic drugs for COVID-19 to the market, and the concentration of management resources on Telomelysin, for which we aim to apply for approval in 2024. Going forward, the Company will proceed with clarifying the detailed mechanism of action for OBP-2011 by conducting collaborative research with Kagoshima University and will consider new indications for RNA viruses other than coronaviruses, maintaining a framework that can respond to new pandemics.

5) Activities related to TelomeScan (OBP-401), a cancer detection drug

The Company set up a "Collaborative Research Program on Minimally Invasive Cancer Detection Method Using TelomeScan," in June 2021, with Juntendo University, aimed at establishing a platform for automated detection. However, the development with Juntendo University has been delayed due to the time required to acquire images compared to initial plans, given the large number of images that need to be acquired for AI image learning. We have lowered the priority of these activities in order to concentrate management resources on Telomelysin, which we aim to submit for approval in 2024.

6) Activities related to OBP-801, HDAC inhibitor

Regarding OBP-801, a histone deacetylase (HDAC) inhibitor licensed from Astellas Pharma Inc. in 2009, dose limiting toxicity (DLT) was observed in Phase I clinical trials targeting solid body cancers in the U.S., making it impossible to escalate the dosage to the presumed effective dose. Therefore, development in the field of cancer has been suspended. OBP-801 received a patent as a cancer treatment and prevention drug in combination with molecular targeting drug in Japan in September 2023.

On the other hand, research for application to glaucoma surgery has been carried out at the Department of Ophthalmology of Kyoto Prefectural University of Medicine in the ophthalmic field, which is a new area of indication for OBP-801, revealing that the drug suppresses fibrosis after filtering bleb formation from glaucoma surgery. The research results were presented at a meeting of the Japanese Ophthalmological Society in April 2023 and at an annual meeting of the Association for Research in Vision and Ophthalmology (ARVO) held in April 2023. Going forward, there is hope for development in the form of eye drops. We have lowered the priority of these activities in order to concentrate management resources on Telomelysin, which we aim to submit for approval in 2024.

The development status of pipeline products is as follows.

Product	Indication	Combination therapy	Development region	Development stage
Telomelysin (OBP-301) (Suratadenoturev)	Esophageal cancer	Radiation therapy	Japan	Phase II (NDA preparation)
		Chemoradiotherapy	U.S.	Phase I
		Anti-PD-1 antibody pembrolizumab	Japan	Phase I (Enrollment complete)
	Gastric/ gastroesophageal junction cancer	Anti-PD-1 antibody pembrolizumab	U.S.	Phase II (Enrollment complete)
		Immune checkpoint inhibitor pembrolizumab	U.S.	Phase II
	Hepatocellular cancer (HCC)	Monotherapy	South Korea and Taiwan	Phase I (complete)
OBP-601 (censavudine)	Progressive supranuclear palsy (PSP)	Monotherapy	U.S.	Phase IIa (Enrollment complete)
	Amyotrophic lateral sclerosis (C9-ALS) / frontotemporal degeneration (FTD)	Monotherapy	U.S. and Europe	Phase IIa (Enrollment complete)
	Aicardi-Goutières Syndrome (AGS)	Monotherapy	Europe	Phase IIa
OBP-702	Solid tumor	Anti-PD-(L)1 antibody (expected)	Japan	Pre-clinical
OBP-2011	Viral infectious diseases	TBD	Japan	Pre-clinical
TelomeScan (OBP-401)	Solid tumor	—	Japan	Clinical research
OBP-801	Suppression of filtering bleb fibrosis after glaucoma surgery	—	Japan	Pre-clinical