

Non-consolidated Financial Results for the First Three Months of Fiscal Year Ending Dec. 31, 2019

(Japanese GAAP)

April 26, 2019

Company name Mothers of TSE UMN Pharma Inc. Stock listings

Securities code 4585 URL http://www.umnpharma.com/en/

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Scheduled date of filing securities report May 15, 2019 Scheduled date of Dividend payments

Supplementary materials for financial results: None

Briefing session of financial results: None

(Rounded down to nearest million yen)

1. Financial Results for the First Three Months of FY2019 (From January 1, 2019 to March 31, 2019)

(1) Operating results

(Percentage indications show changes from corresponding figures for the previous period)

| | Net sales | | Operating income | | Ordinary income | | Net income | |
|------------------------------|-------------|---------|------------------|---|-----------------|---|-------------|---|
| | Million yen | % | Million yen | % | Million yen | % | Million yen | % |
| First three months of FY2019 | _ | (100.0) | (179) | _ | (180) | _ | (180) | _ |
| First three months of FY2018 | 3 | 22.7 | (193) | _ | (194) | _ | (194) | _ |

| | Net income per share - basic | Net income per share - diluted |
|------------------------------|---------------------------------|-----------------------------------|
| | Yen | Yen |
| First three months of FY2019 | (11.81) | _ |
| First three months of FY2018 | (15.18) | _ |

(2) Financial position

| | Total assets | Net assets | Net assets as percentage of total assets |
|-------------------------|--------------|-------------|--|
| | Million yen | Million yen | % |
| As of March 31, 2019 | 1,014 | 204 | 19.0 |
| As of December 31, 2018 | 1,177 | 382 | 31.7 |

(Reference) Shareholders' equity As of March 31, 2019 193 Million yen As of December 31, 2018 373 Million yen

2. Dividends

| | | Annual dividends per share | | | | | |
|------------------|-----------|----------------------------|-----------|----------|-----------------|--|--|
| | End of Q1 | End of Q2 | End of Q3 | Year end | Total dividends | | |
| | Yen | Yen | Yen | Yen | Yen | | |
| FY2018 | _ | 0 00 | _ | 0 00 | 0 00 | | |
| FY2019 | _ | | | | | | |
| FY2019(Forecast) | | 0 00 | _ | 0 00 | 0 00 | | |

(Note) Revisions to the latest dividend forecast: None

3. Forecasts for the Fiscal Year Ending December. 31, 2019(from January 1, 2019 to December 31, 2019)

(Percentage indications show changes from corresponding figures for the previous period)

| | Net sales | 3 | Operating in | come | Ordinary inco | ome | Net incon | ne | Profit per share |
|--------|-------------|-------|--------------|------|---------------|-----|-------------|----|------------------|
| | Million yen | % | Million yen | % | Million yen | % | Million yen | % | Yen |
| FY2019 | 100 | (3.5) | (887) | _ | (891) | _ | (893) | _ | (58.36) |

(Note) Revisions to the latest performance forecasts: None

The above forecast is the plan of sales, R&D expenses, and administration expenses based on premise of achieving milestone conditions for First Phase of partnership with Shionogi & Co., Ltd.. On the other hand, if the transition to Second Phase is reached to agree, there is a possibility that the forecast value including sales and so on will fluctuate significantly depending on economic conditions and other agreements. The Company will disclose promptly after realization of the agreement of shifting to Second Phase, and necessity of revision of business forecast.

*(Notes)

(1) Application of special accounting treatment in preparation of quarterly non-consolidated financial statements : None

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

1) Changes due to revised accounting standards : None

2) Changes due to revised accounting policies other than 1) : None

3) Changes in accounting estimates : None

4) Restatements : None

(3) Number of common shares issued

1) Number of shares issued (including treasury shares)

2) Number of treasury shares

3) Average number of shares outstanding

| As of March 31,2019 | 15,296,500 | As of December 31,2018 | 15,296,500 |
|--------------------------------------|------------|--------------------------------------|------------|
| As of March 31,2019 | 50 | As of December 31,2018 | 50 |
| For the first three months of FY2019 | 15,296,450 | For the first three months of FY2018 | 12,796,450 |

^{*} This quarterly summary of consolidated financial results is excluded from quarterly review by certified public accountants or auditing corporations.

This press release includes forward-looking statements based on a number of assumptions and beliefs in light of the information currently available to management and subject to significant risks and uncertainties. Consequently, any statements herein do not constitute assurances regarding the actual results. Actual financial results may differ materially depending on a number of factors, including adverse economic conditions, currency exchange rate fluctuations, adverse legislative and regulatory developments, delays in new product launches, the pricing and product initiative of competitors, the inability of the company to market existing and new product effectively, interruptions in production, infringement of the company's intellectual property rights and the adverse outcome material litigation.

^{**} Explanation concerning the appropriate use of forecasts and other special instructions (Notice regarding forward-looking statements)

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1. Analysis of Operating Results and Financial Position

(1) Analysis of Operating Results

The Japanese economy in the first quarter of the current fiscal year appears to begin to level off in corporate earnings and the employment environment, as the effects of the government's economic and fiscal policies appeared to have come round to be finished. In addition to the weakness of consumer spending in Japan, concerns about the global economic situation, such as recession fears due to the consumption tax increase, destabilization of the surrounding regional situation, and an increase of vigilance against the trend of US trade policy, have not been dispelled yet and still uncertain.

In the Japanese pharmaceutical industry, the growth of the medical pharmaceutical market has slowed due to measures to curb medical expenses, and expansion in world markets by the development of global pharmaceutical products is becoming more important.

In such a business environment, the Company has been developing "the next-generation biopharmaceutical in-house development business" aiming to create higher value-added "next-generation logical vaccine" that is capable of higher efficacy and efficient production.

In "Next-generation Biopharmaceutical in-house development project", based on the agreement of the capital and business alliance signed with Shionogi & Co., Ltd. (hereinafter referred to as "Shionogi") on October 31, 2017, which includes fundamental core technology related to drug discovery regarding vaccine for preventing infection in humans, a part of the in-house development pipeline that the Company has been developing in next-generation biopharmaceutical development project, and new development candidates targets other than in-house developed pipeline as initial basic development candidates, the Company has been actively promoting R&D activities related to fundamental core technology and basic research on development candidates in order to achieve the third milestones based on the agreement. In the current first quarter, the Company has started trial production using a 600 L full scale culture tank after small-scale test production at Akita Plant, and has been implementing adaptive confirmation for development candidates to new basic technology. In addition, the Company also has discussed with the authorities regarding the application of regulatory guidelines that are important in establishing basic technology, and has confirmed that contents of the current research and development are generally in line with regulatory guidelines. The Company has been making steady progress in it. On the other hand, the timing to confirm the achievement of the third milestone is expected to be in the second quarter of this fiscal year. In addition, regarding the fundamental research of development candidates that the Company has been progressing in parallel, the Company has been studying on selection of adjuvant and application of drug delivery technology. In a plurality of development candidates, the Company is about to acquire important knowledge concerning the creation of next generation logical vaccine, and is making progress in examination regarding selection of development candidates products.

The following in terms of the in-house development pipeline, in the basic research of development candidates in accordance with the partnership with Shionogi, has been promoting the research and development based on its own technology, and the selection of development candidates has been progressing. All progress as of this disclosure date is in basic research stage.

• UMN-101: Recombinant seasonal influenza HA vaccine

• UMN-102 : Recombinant H1N1 influenza HA vaccine

UMN-103 : Recombinant Rotavirus vaccine

UMN-104 : Recombinant Norovirus vaccine

In addition, the Company has entered into the joint research agreement with National Institutes of Biomedical Innovation, Health and Nutrition (hereinafter referred to as "NIBIOHN") as the period from June, 2017 to the end of June, 2019, and has been promoting research and development activities aimed at creating "Next-generation logical vaccine", which is state-of-the-art biopharmaceuticals including new vaccine, by fusing new adjuvant seeds owned by NIBIOHN and manufacturing technology owned by the Company.

On the other hand, in terms of "the contract manufacturing business for biopharmaceuticals", in addition to having an obligation to advance the business related to the first phase with Shionogi, since the Company are concentrating

management resources on research and development activities in the first phases for the time being in order to prioritizing to make progress to the second phase, there were no orders for new projects.

Concerning the introduction of new development pipeline, through the achievement of the contracts from universities and public research institution so far, not only for consignment of manufacturing at the research stage but also for candidates that are expected to be productization that has come out, and the Company has been actively working on as one of the introduction routes of the newly developed pipeline.

As a result of the above, there were no net sales in the first quarter of the current fiscal year. (100.0% decrease compared to the same period of the previous year) On the other hand, by recorded research and development expenses related to the alliance with Shionogi, the operating loss amounted to \$179,863 thousand (Operating loss of \$193,372 thousand in the same period of the previous year), the ordinary loss amounted to \$180,096 thousand (Ordinary loss of \$194,140 thousand in the same period of the previous year), and the net loss amounted to \$180,612 thousand (Net loss of \$194,299 thousand in the same period of the previous year).

In addition, since the Company has a single segment of R&D of medical drugs and related business, the description of business results by segment is omitted.

*Next-generation logical vaccine:

The next-generation logical vaccine that the Company has been aiming for is a development concept of vaccine, integrated recombinant protein antigen production technology, adjuvant technology and formulation/drug delivery technology, utilizing various knowledge, know-how and technology of biopharmaceutical technology platform, which has been developed for over 10 years by the Company.

By next-generation logical vaccine, the Company has been aiming at the realization of optimal high effectiveness and high productivity for a target infectious disease. In other words, by utilizing formation/drug delivery technology, it is possible to realize high effectiveness by inducing optimal immunity for each targeted infectious disease. In addition, by utilizing adjuvant technology, not only it is possible to realize high effectiveness with less antigen amount, but also it is possible to secure a supply amount that can cover the market with the Company's current production system and also to contribute to cost reduction, by introducing efficiently producing recombinant protein antigens.

**Adjuvant: Pharmaceutical additives for the purpose of immunopotentiating to increase effectiveness of vaccine.

(2) Analysis of Financial Position

The financial position as of Mar. 31, 2019 is as follows,

Total assets amounted to ¥1,014,143 thousand, which corresponds to a decrease of ¥163,229 thousand compared to the end of the previous fiscal year.

Current assets amounted to ¥914,681 thousand, which corresponds to a decrease of ¥162,643 thousand compared to the end of the previous fiscal year, mainly due to a decrease of ¥186,869 thousand in cash and cash deposits.

Non-current assets amounted to ¥99,462 thousand, which corresponds to a decrease of ¥586 thousand compared to the end of the previous fiscal year.

Liabilities amounted to ¥809,621 thousand, which corresponds to an increase of ¥14,382 thousand compared to the end of the previous fiscal year.

Net assets amounted to \(\frac{\text{\$}}{204,522}\) thousand, which corresponds to a decrease of \(\frac{\text{\$}}{177,612}\) thousand compared to the end of the previous fiscal year, mainly due to net loss of \(\frac{\text{\$}}{180,612}\) thousand incurred during the period.

(3) Explanation of Non-consolidated Financial Results Forecasts and Other Forward-looking Information There is no change from our financial results for the fiscal year ending December 31, 2019 released on February 14, 2019.

2. Quarterly Non-consolidated Financial Statements

(1) Quarterly Non-consolidated Balance Sheets

| | | (Thousands of yer |
|--|--|---|
| | Previous fiscal year (as of Dec. 31, 2018) | First quarter of FY2019 (as of Mar. 31, 2019) |
| Assets | | |
| Current assets | | |
| Cash and deposits | 1,018,410 | 831,54 |
| Raw materials | 5,946 | 21,40 |
| Other | 52,968 | 61,73 |
| Total current assets | 1,077,324 | 914,68 |
| Non-current assets | | |
| Property, plant and equipment | 80,605 | 80,60 |
| Investments and other assets | 19,442 | 18,85 |
| Total non-current assets | 100,048 | 99,46 |
| Total assets | 1,177,373 | 1,014,14 |
| Liabilities | | |
| Current liabilities | 52,854 | 67,14 |
| Non-current liabilities | | |
| Convertible bond-type bonds with share | 715 200 | 715 20 |
| acquisition rights | 715,200 | 715,20 |
| Asset retirement obligations | 23,469 | 23,55 |
| Other | 3,714 | 3,71 |
| Total non-current liabilities | 742,384 | 742,47 |
| Total liabilities | 795,238 | 809,62 |
| Net assets | | |
| Shareholders' equity | | |
| Capital stock | 679,415 | 679,41 |
| Capital surplus | 679,415 | 679,41 |
| Retained earnings | (984,931) | (1,165,543 |
| Treasury shares | (197) | (197 |
| Total shareholders' equity | 373,701 | 193,08 |
| Share acquisition rights | 8,433 | 11,43 |
| Total net assets | 382,134 | 204,52 |
| Total liabilities and net assets | 1,177,373 | 1,014,14 |

(2) Quarterly Non-consolidated Statements of Income

| | | (Thousands of yen) |
|--|--|--|
| | Three months ended Mar. 31, 2018 (From Jan. 1, 2018 to Mar. 31, 2018) | Three months ended Mar. 31, 2019 (From Jan. 1, 2019 to Mar. 31, 2019) |
| Net sales | 3,610 | _ |
| Cost of sales | 1,677 | _ |
| Gross profit | 1,933 | _ |
| Selling, general and administrative expenses | 195,306 | 179,863 |
| Operating loss | (193,372) | (179,863) |
| Non-operating income | | |
| Interest income | 3 | 6 |
| Foreign exchange gains | _ | 26 |
| Other | 21 | 122 |
| Total non-operating income | 24 | 154 |
| Non-operating expenses | | |
| Interest on bonds | 792 | 387 |
| Total non-operating expenses | 792 | 387 |
| Ordinary loss | (194,140) | (180,096) |
| Loss before income taxes | (194,140) | (180,096) |
| Income taxes - current | 159 | 515 |
| Total income taxes | 159 | 515 |
| Net loss | (194,299) | (180,612) |