# 1st Half of Fiscal 2019
# Financial Results

October 30, 2019

Isao Teshirogi, Ph.D.
President and CEO

SHIONOGI

# Agenda

1. Overview of 1st Half FY2019 Financial Results (P.3-12)
2. FY2019 Financial Forecasts (P.13-17)
3. Shareholder Return (P.18-20)

# 1. Overview of 1st Half FY2019 Financial Results

# Highlight(1) Top Line Smoothly Progressed Toward 1H Forecasts

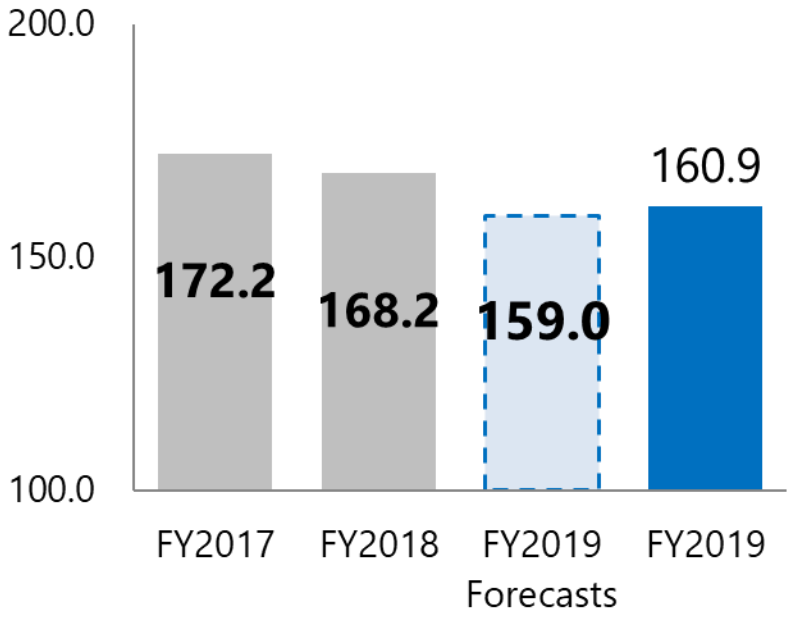
- Sales: **160.9 B yen** (YonY -4.4%, vs 1H forecast +1.2%)

For HIV franchise

- Royalty income: **61.1 B yen** (YonY +7.1%)

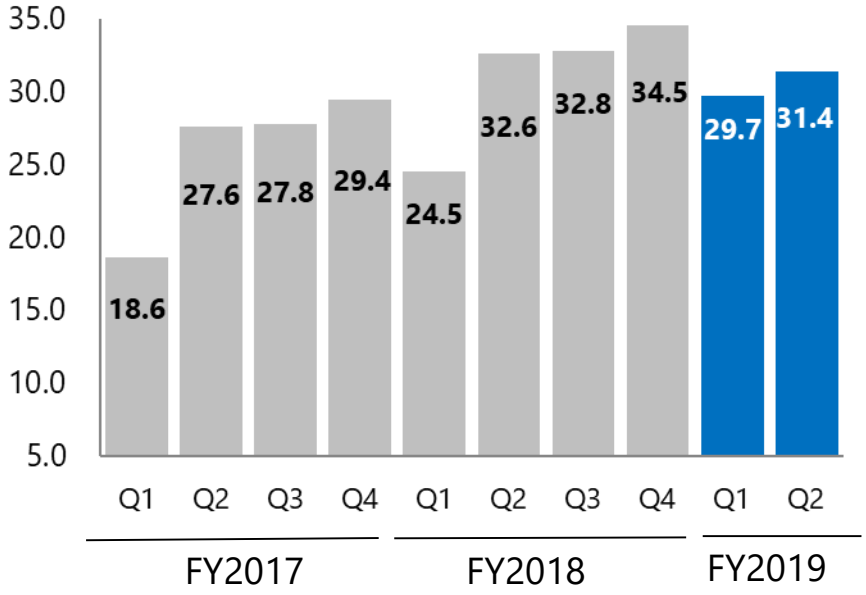
(Billions of yen)

## Net Sales (1H)




(Billions of yen)

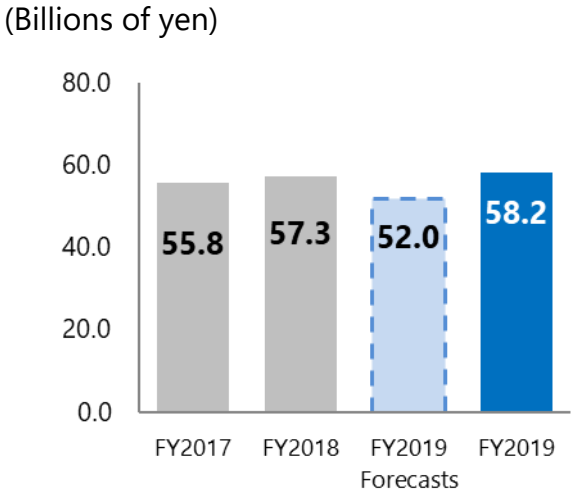
## Quarterly Royalty Income from HIV Franchise



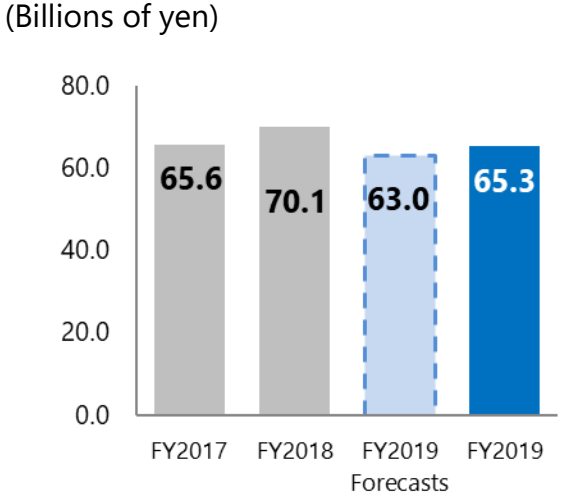
# Highlight(2) Each Profit Measure Has Smoothly Progressed vs 1H Forecasts

- Operating income: **58.2 B yen** (+1.5%, +11.8%) vs. 1H FY2018 vs. 1H Forecasts
  **Record-high levels for 5 consecutive years**
- Ordinary income: **65.3 B yen** (-6.8%, +3.7%) vs. 1H FY2018 vs. 1H Forecasts
- Profit attributable to owners of parent: **51.6 B yen** (-10.8%, +5.3%) vs. 1H FY2018 vs. 1H Forecasts

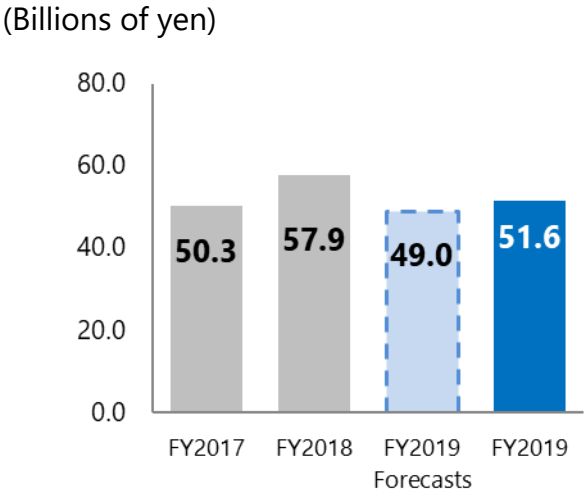
**Operating Income (1H)**




**Ordinary Income (1H)**




**Profit attributable to owners of parent (1H)**



# Financial Results (Consolidated)

(Unit: B yen)

| | FY2019 | | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|
| | Forecasts* | | 1H results | Progress vs. forecasts | 1H results | Change (%) | Change (B yen) |
| | Full year | 1H | | | | | |
| Sales | 365.5 | 159.0 | **160.9** | 101.2% | 168.2 | (4.4%) | (7.3) |
| Operating income | 147.0 | 52.0 | **58.2** | 111.8% | 57.3 | 1.5% | 9.0 |
| Ordinary income | 170.5 | 63.0 | **65.3** | 103.7% | 70.1 | (6.8%) | (4.8) |
| Profit attributable to owners of parent | 133.0 | 49.0 | **51.6** | 105.3% | 57.9 | (10.8%) | (6.3) |

- **Sales and each profit measure exceeded the 1H forecasts**
- **Operating income was higher than the levels achieved in prior fiscal years for 5 consecutive years**

| Exchange Rate (average) | FY2019 forecasts | FY2019 1H results |
|---|---|---|
| USD ($) – JPY (¥) | 110.0 | **108.61** |
| GBP (£) – JPY (¥) | 145.0 | **136.65** |
| EUR (€) – JPY (¥) | 130.0 | **121.41** |

* Forecasts announced on May 9, 2019 (Revision was announced on October 30, 2019)

# Statement of Income

(Unit: B yen)

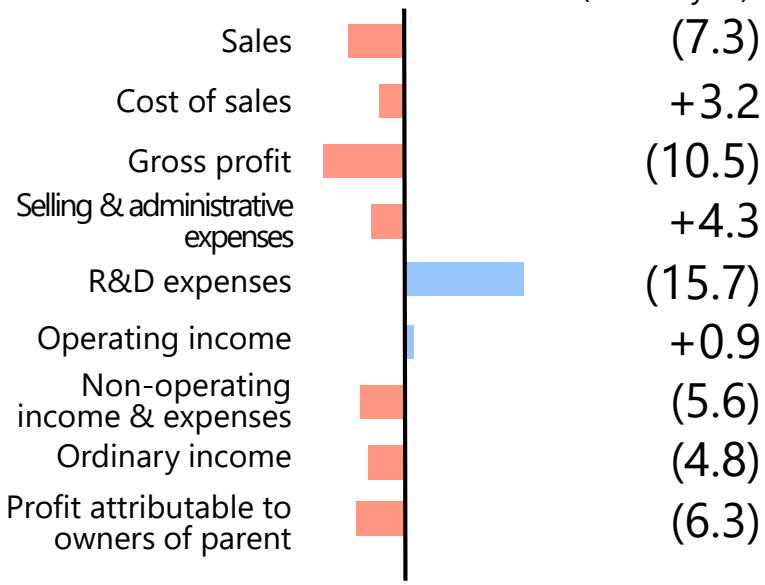
| | FY2019 | | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|
| | Forecasts* | | 1H results | Achievement (%) | 1H results | Change (%) | Change (B yen) |
| | Full year | 1H | | | | | |
| **Sales** | **365.5** | **159.0** | **160.9** | 101.2 | 168.2 | (4.4) | (7.3) |
| | 14.6 | 16.0 | 17.3 | | 14.7 | | |
| **Cost of sales** | **53.5** | **25.5** | **27.9** | 109.4 | 24.7 | 12.8 | 3.2 |
| **Gross profit** | **312.0** | **133.5** | **133.0** | 99.6 | 143.5 | (7.3) | (10.5) |
| | 45.1 | 51.3 | 46.5 | | 51.2 | | |
| **SG&A expenses** | **165.0** | **81.5** | **74.8** | 91.8 | 86.2 | (13.2) | (11.4) |
| | 31.6 | 35.5 | 32.2 | | 28.3 | | |
| Selling & administrative expenses | **115.5** | **56.4** | **51.8** | 91.9 | 47.5 | 9.1 | 4.3 |
| | 13.5 | 15.8 | 14.3 | | 23.0 | | |
| R&D expenses | **49.5** | **25.1** | **23.0** | 91.5 | 38.6 | (40.6) | (15.7) |
| Ordinary R&D expenses** | **49.5** | **25.1** | **23.0** | 91.5 | 25.6 | (10.2) | (2.6) |
| Strategic investment | **-** | **-** | **-** | - | 13.1 | - | (13.1) |
| | 40.2 | 32.7 | 36.2 | | 34.1 | | |
| **Operating income** | **147.0** | **52.0** | **58.2** | 111.8 | 57.3 | 1.5 | 0.9 |
| **Non-operating income & expenses** | **23.5** | **11.0** | **7.1** | 64.9 | 12.8 | (44.1) | (5.6) |
| | 46.6 | 39.6 | 40.6 | | 41.7 | | |
| **Ordinary income** | **170.5** | **63.0** | **65.3** | 103.7 | 70.1 | (6.8) | (4.8) |
| **Profit attributable to owners of parent** | **133.0** | **49.0** | **51.6** | 105.3 | 57.9 | (10.8) | (6.3) |

* Forecasts announced on May 9, 2019 (Revision was announced on October 30, 2019)
** Ordinary R&D expenses: Total R&D expenses excluding strategic investment

# Y on Y Comparison and Main Variation Factors (Statements of Income)

- **Y on Y comparison**

(Unit: B yen)




- **Progress vs 1H Forecasts**

(Unit: B yen)




## Main Variation Factors (Y on Y)

- **Sales**
  - FY2018: Income from Roche for Xofluza® *
- **Cost of sales**
  - Increase in export of dolutegravir and Xofluza®, Sales increase of Flumarin®
- **SG & A expenses**
  - **Selling & administrative expenses**
    - › Increased in alignment with sales growth
  - **R&D expenses**
    - › FY2018: Strategic investment (13.1 B yen)
- **Non-operating income & expenses**
  - FY2018: One-time dividend from ViiV
  - Exchange-rate fluctuations

## Main Variation Factors (vs 1H Forecasts)

- **Cost of sales**
  - Product mix
  - Increase in exports of dolutegravir and Xofluza®
- **SG & A expenses**
  - **Selling & administrative expenses**
    - › Controlled in preparation for 2H FY2019 activities
  - **R&D expenses**
    - › Change of development plan of S-812217
- **Non-operating income & expenses**
  - Exchange-rate fluctuations



* Royalty income from Roche as milestones of R&D achievement

# Sales by Segment

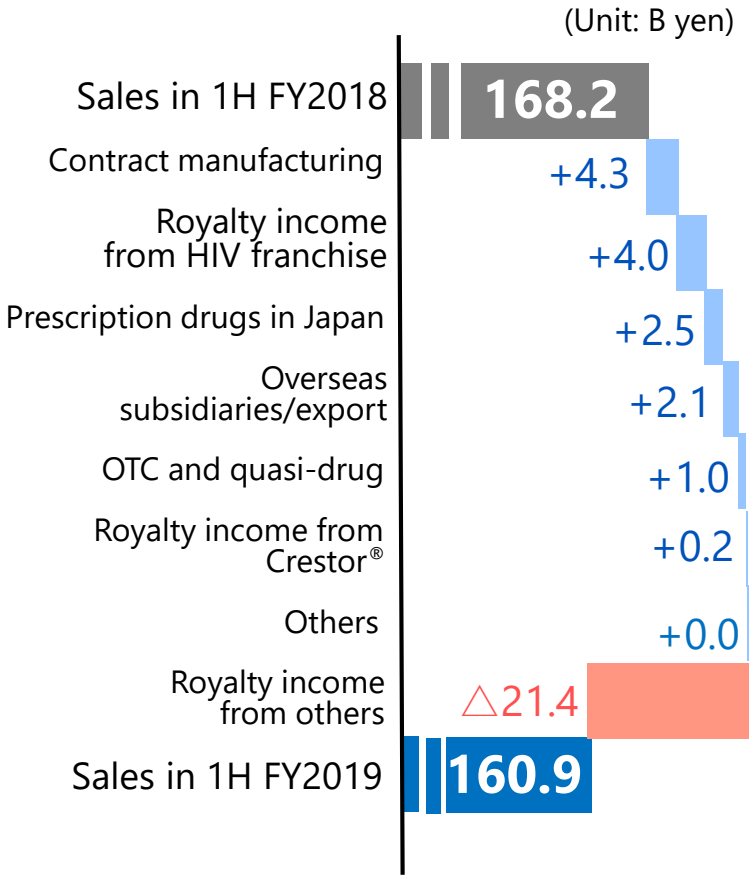
(Unit: B yen)

| | FY2019 | | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|
| | Forecasts* | | 1H results | Achievement (%) | 1H results | Change (%) | Change (B yen) |
| | Full year | 1H | | | | | |
| **Prescription drugs** | **144.1** | **53.7** | **52.4** | 97.6 | 50.0 | 4.9 | 2.5 |
| **Overseas subsidiaries/export** | **31.4** | **16.0** | **17.5** | 109.2 | 15.4 | 13.9 | 2.1 |
| **Shionogi Inc.** | **9.9** | **6.3** | **6.8** | 108.0 | 7.4 | (8.0) | (0.6) |
| **Mulpleta®** | **1.0** | **0.25** | **0.34** | 134.8 | -** | - | 0.3 |
| **C&O** | **14.6** | **6.8** | **7.2** | 104.9 | 5.0 | 42.7 | 2.1 |
| **Contract manufacturing** | **14.3** | **9.1** | **10.1** | 111.0 | 5.7 | 75.7 | 4.3 |
| **OTC and quasi-drug** | **9.7** | **4.6** | **4.7** | 102.3 | 3.8 | 25.1 | 1.0 |
| **Royalty income** | **163.6** | **74.3** | **75.0** | 100.9 | 92.2 | (18.7) | (17.2) |
| **HIV franchise** | **126.5** | **61.3** | **61.1** | 99.7 | 57.1 | 7.1 | 4.0 |
| **Crestor®** | **22.0** | **11.0** | **11.1** | 100.5 | 10.9 | 1.5 | 0.2 |
| **Others** | **15.1** | **2.1** | **2.8** | 135.6 | 24.2 | (88.4) | (21.4) |
| **Others** | **2.4** | **1.2** | **1.1** | 94.7 | 1.1 | 0.3 | (0.0) |
| **Total** | **365.5** | **159.0** | **160.9** | **101.2** | 168.2 | **(4.4)** | **(7.3)** |

* Forecasts announced on May 9, 2019 (Revision was announced on October 30, 2019)
** The full-scale promotion was initiated in Dec. 2018.

# Y on Y Comparison and Main Variation Factors (Sales by Segment)

- **Y on Y comparison**




## Main Variation Factors (Y on Y)

- **Royalty income**

(Increase factor)
  - Sales growth and termination of the threshold period of HIV franchise

(Decrease factor)
  - FY2018: Income from Roche for Xofluza® *

- **Contract manufacturing**
  - Increase in export of dolutegravir and Xofluza®

- **Prescription drugs**
  - Sales Increase of Cymbalta® and Intuniv®

- **Overseas subsidiaries/export**
  - C&O: Sales increase of rabeprazole
  - Shionogi Inc.
    - > FY2018: One-time payment from Purdue
    - > FY2019: One-time payment from BDSI**



* Royalty income from Roche as milestones of R&D achievement
** BioDelivery Sciences International Inc.

# Sales of Prescription Drugs in Japan

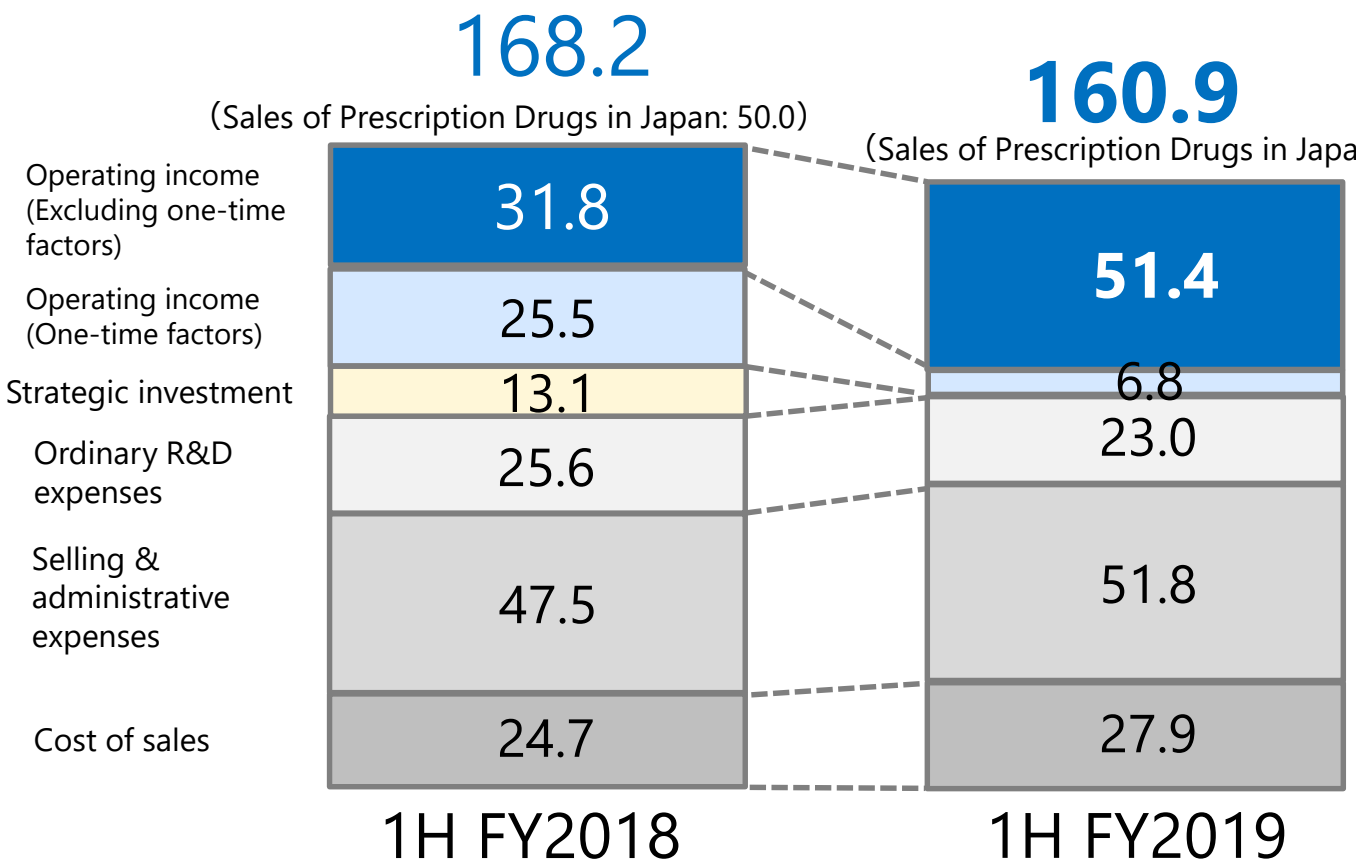
(Unit: B yen)

| | FY2019 | | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|
| | Forecasts* | | 1H results | Achievement (%) | 1H results | Change (%) | Change (B yen) |
| | Full year | 1H | | | | | |
| Cymbalta® | 29.3 | 13.0 | 12.9 | 98.8 | 11.9 | 7.8 | 0.9 |
| Intuniv® | 13.6 | 4.6 | 4.5 | 96.6 | 2.4 | 86.7 | 2.1 |
| Xofluza® | 28.0 | 0.28 | 0.00 | 0.5 | 0.46 | (99.7) | (0.5) |
| Rapiacta® | 2.6 | 0.05 | 0.01 | 21.8 | 0.01 | 77.8 | 0.0 |
| Brightpoc® Flu | 1.8 | 0.18 | 0.31 | 169.0 | 0.23 | 32.3 | 0.1 |
| Total of strategic products | 75.7 | 18.2 | 17.7 | 96.9 | 15.0 | 17.4 | 2.6 |
| OxyContin® franchise | 6.7 | 3.6 | 3.2 | 87.9 | 3.8 | (16.6) | (0.6) |
| Symproic® | 2.3 | 1.1 | 1.1 | 99.9 | 0.72 | 51.6 | 0.4 |
| Actair® | 0.27 | 0.12 | 0.12 | 95.6 | 0.09 | 39.8 | 0.0 |
| Mulpleta® | 0.33 | 0.17 | 0.07 | 40.1 | 0.08 | (19.1) | (0.0) |
| Pirespa® | 6.9 | 3.5 | 3.4 | 99.5 | 2.9 | 20.2 | 0.6 |
| Total of new products | 92.2 | 26.7 | 25.6 | 95.8 | 22.6 | 13.1 | 3.0 |
| Crestor® | 10.0 | 5.2 | 4.6 | 88.0 | 5.2 | (11.5) | (0.6) |
| Irbetan® franchise | 4.9 | 2.6 | 2.2 | 85.5 | 3.1 | (26.6) | (0.8) |
| Others | 36.9 | 19.2 | 20.1 | 104.4 | 19.1 | 4.8 | 0.9 |
| **Prescription drugs** | **144.1** | **53.7** | **52.4** | **97.6** | 50.0 | **4.9** | **2.5** |

* Forecasts announced on May 9, 2019 (Revision was announced on October 30, 2019)

# Year-On-Year Comparisons (One-time Factors)

## Sales (Unit: B yen)




＜Main One-time Factors＞

FY2018：
- Income from Roche
- One-time payment from Purdue
- Strategic investment

FY2019：
- Termination of the threshold period for the calculation of royalty payment of HIV franchise by ViiV
- One-time payment from BDSI*

**Our business is progressing steadily including the sales of new products**

* BioDelivery Sciences International Inc.

# 2. FY2019 Financial Forecasts

# Revision of Forecasts (Announced on Oct 30, 2019)

(Unit: B yen)

| | FY2019 Forecasts | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|
| | Original (May 9) | Revised (Oct 30) | Change (B yen) | Results | Change (%) | Change (B yen) |
| Sales | 365.5 | 367.0 | 1.5 | 363.7 | 0.9 | 3.3 |
| Operating income | 147.0 | 150.0 | 3.0 | 138.5 | 8.3 | 11.5 |
| Ordinary income | 170.5 | 171.5 | 1.0 | 166.6 | 3.0 | 4.9 |
| Profit attributable to owners of parent | 133.0 | 135.0 | 2.0 | 132.8 | 1.7 | 2.2 |

| Exchange rate (average) | FY2019 forecasts (May 9) | FY2019 forecasts (Revised on Oct 30) | 1H FY2019 Results |
|---|---|---|---|
| USD ($) – JPY (¥) | 110.0 | 107.0 | 108.61 |
| GBP (£) – JPY (¥) | 145.0 | 133.0 | 136.65 |
| EUR (€) – JPY(¥) | 130.0 | 120.0 | 121.41 |

# Revision of Statement of Income

(Unit: B yen)

| | FY2019 Forecasts | | | FY2019 2H Forecasts | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|---|---|
| | Original (May 9) | Revised (Oct 30) | Change | Original (May 9) | Revised (Oct 30) | Change | Results | Change (%) | Change (B yen) |
| **Sales** | 365.5 | **367.0** | **1.5** | 206.5 | **206.1** | **(0.4)** | 363.7 | **0.9** | **3.2** |
| **Cost of sales** | 14.6<br>53.5 | 15.3<br>**56.0** | **2.5** | 13.6<br>28.0 | 13.6<br>**28.1** | **0.1** | 15.1<br>54.9 | **2.0** | **1.1** |
| **Gross profit** | 312.0 | **311.0** | **(1.0)** | 178.5 | **178.0** | **(0.5)** | 308.8 | **0.7** | **2.2** |
| **SG&A expenses** | 45.1<br>165.0 | 43.9<br>**161.0** | **(4.0)** | 40.4<br>83.5 | 41.8<br>**86.2** | **2.7** | 46.8<br>170.3 | **(5.5)** | **(9.3)** |
| Selling & administrative expenses | 31.6<br>115.5 | 30.5<br>**112.0** | **(3.5)** | 28.6<br>59.1 | 29.2<br>**60.2** | **1.1** | 28.0<br>102.0 | **9.8** | **10.0** |
| **R&D expenses** | 13.5<br>49.5 | 13.4<br>**49.0** | **(0.5)** | 11.8<br>24.4 | 12.6<br>**26.0** | **1.6** | 18.8<br>68.3 | **(28.3)** | **(19.3)** |
| Ordinary R&D expenses* | 49.5 | **49.0** | **(0.5)** | 24.4 | **26.0** | **1.6** | 51.4 | **(4.7)** | **(2.4)** |
| Strategic investment | - | **-** | **-** | - | **-** | **-** | 16.9 | **-** | **(16.9)** |
| **Operating income** | 40.2<br>147.0 | 40.9<br>**150.0** | **3.0** | 46.0<br>95.0 | 44.6<br>**91.8** | **(3.2)** | 38.1<br>138.5 | **8.3** | **11.5** |
| **Non-operating income & expenses** | 23.5 | **21.5** | **(2.0)** | 12.5 | **14.4** | **1.9** | 28.0 | **(23.3)** | **(6.5)** |
| **Ordinary income** | 46.6<br>170.5 | 46.7<br>**171.5** | **1.0** | 52.1<br>107.5 | 51.5<br>**106.2** | **(1.3)** | 45.8<br>166.6 | **3.0** | **4.9** |
| **Profit attributable to owners of parent** | 133.0 | **135.0** | **2.0** | 84.0 | **83.4** | **(0.6)** | 132.8 | **1.7** | **2.2** |

* Ordinary R&D expenses: Total R&D expenses excluding strategic investment

# Revision of Sales by Segment

(Unit: B yen)

| | FY2019 Forecasts | | | FY2019 2H Forecasts | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|---|---|
| | Original (May 9) | Revised (Oct 30) | Change | Original (May 9) | Revised (Oct 30) | Change | Results | Change (%) | Change (B yen) |
| **Prescription drugs** | 144.1 | 144.1 | - | 90.4 | **91.6** | **1.3** | 128.7 | 12.0 | 15.4 |
| **Overseas subsidiaries/export** | 31.4 | **31.3** | **(0.0)** | 15.3 | **13.8** | **(1.5)** | 29.4 | **6.5** | **1.9** |
| **Shionogi Inc.** | 9.9 | **10.2** | **0.3** | 3.6 | **3.4** | **(0.2)** | 11.8 | **(13.8)** | **(1.6)** |
| **Mulpleta®** | 1.0 | 1.0 | - | 0.75 | **0.66** | **(0.1)** | 0.08 | N/A* | 0.9 |
| **C&O** | 14.6 | **14.5** | **(0.0)** | 7.8 | **7.4** | **(0.4)** | 11.5 | **26.7** | **3.1** |
| **Contracting manufacturing** | 14.3 | **15.4** | **1.0** | 5.3 | **5.3** | **0.1** | 14.8 | **4.1** | **0.6** |
| **OTC and quasi-drug** | 9.7 | 9.7 | - | 5.1 | **5.0** | **(0.1)** | 8.1 | 19.7 | 1.6 |
| **Royalty income** | 163.6 | **164.2** | **0.6** | 89.3 | **89.3** | **(0.0)** | 180.3 | **(8.9)** | **(16.0)** |
| **HIV franchise** | 126.5 | **126.3** | **(0.2)** | 65.2 | 65.2 | - | 124.4 | **1.5** | **1.9** |
| **Crestor®** | 22.0 | **21.8** | **(0.2)** | 11.0 | **10.8** | **(0.3)** | 22.0 | **(0.7)** | **(0.1)** |
| **Others** | 15.1 | **16.1** | **1.0** | 13.0 | **13.3** | **0.2** | 33.9 | **(52.5)** | **(17.8)** |
| **Others** | 2.4 | **2.2** | **(0.1)** | 1.2 | **1.1** | **(0.1)** | 2.5 | **(8.7)** | **(0.2)** |
| **Total** | **365.5** | **367.0** | **1.5** | **206.5** | **206.1** | **(0.4)** | **363.7** | **0.9** | **3.3** |

* N/A: Not applicable because Mulpleta® was sold only for 7 months in FY2018.

# Revision of Sales Forecasts for Prescription Drugs in Japan

(Unit: B yen)

| | FY2019 Forecasts | | | FY2019 2H Forecasts | | | FY2018 | Y on Y | |
|---|---|---|---|---|---|---|---|---|---|
| | Original (May 9) | Revised (Oct 30) | Change | Original (May 9) | Revised (Oct 30) | Change | Results | Change (%) | Change (B yen) |
| Cymbalta® | 29.3 | 29.3 | - | 16.2 | **16.4** | **0.2** | 24.1 | 21.6 | 5.2 |
| Intuniv® | 13.6 | 13.6 | - | 9.0 | **9.2** | **0.2** | 5.3 | 157.2 | 8.3 |
| Vyvanse® | 0.38 | **0.05** | **△0.3** | 0.33 | **0.05** | **△0.3** | -* | -* | **0.05** |
| Xofluza® | 28.0 | 28.0 | - | 27.7 | **28.0** | **0.3** | 26.3 | 6.5 | 1.7 |
| Rapiacta® | 2.6 | 2.6 | - | 2.6 | **2.6** | **0.0** | 2.0 | 27.7 | 0.6 |
| Brightpoc® Flu | 1.8 | **2.2** | **0.3** | 1.6 | **1.8** | **0.2** | 1.2 | 84.0 | 1.0 |
| Total of strategic products | 75.7 | **75.7** | **(0.0)** | 57.5 | **58.1** | **0.6** | 58.9 | **28.6** | **16.8** |
| OxyContin® franchise | 6.7 | **6.4** | **(0.3)** | 3.1 | **3.2** | **0.1** | 7.3 | **(12.1)** | **(0.9)** |
| Symproic® | 2.3 | 2.3 | - | 1.2 | **1.2** | **0** | 1.6 | 43.8 | 0.7 |
| Actair® | 0.27 | **0.26** | **(0.0)** | 0.14 | 0.14 | - | 0.19 | **35.5** | **0.1** |
| Mulpleta® | 0.33 | **0.23** | **(0.1)** | 0.16 | 0.16 | - | 0.15 | **50.2** | **0.1** |
| Pirespa® | 6.9 | **7.0** | **0.1** | 3.4 | **3.5** | **0.1** | 5.7 | **23.0** | **1.3** |
| Total of new products | 92.2 | **91.9** | **(0.3)** | 65.5 | **66.3** | **0.8** | 73.8 | **24.5** | **18.1** |
| Crestor® | 10.0 | **9.5** | **(0.5)** | 4.8 | **4.9** | **0.1** | 9.9 | **(4.0)** | **(0.4)** |
| Irbetan® franchise | 4.9 | **4.6** | **(0.3)** | 2.3 | **2.4** | **0.1** | 5.4 | **(13.5)** | **(0.7)** |
| Others | 36.9 | **38.1** | **1.1** | 17.7 | **18.0** | **0.3** | 39.6 | **(4.0)** | **(1.6)** |
| **Total** | **144.1** | **144.1** | **-** | **90.4** | **91.6** | **1.3** | **128.7** | **12.0** | **15.4** |

* To be launched in 2H FY2019

# 3. Shareholder Return

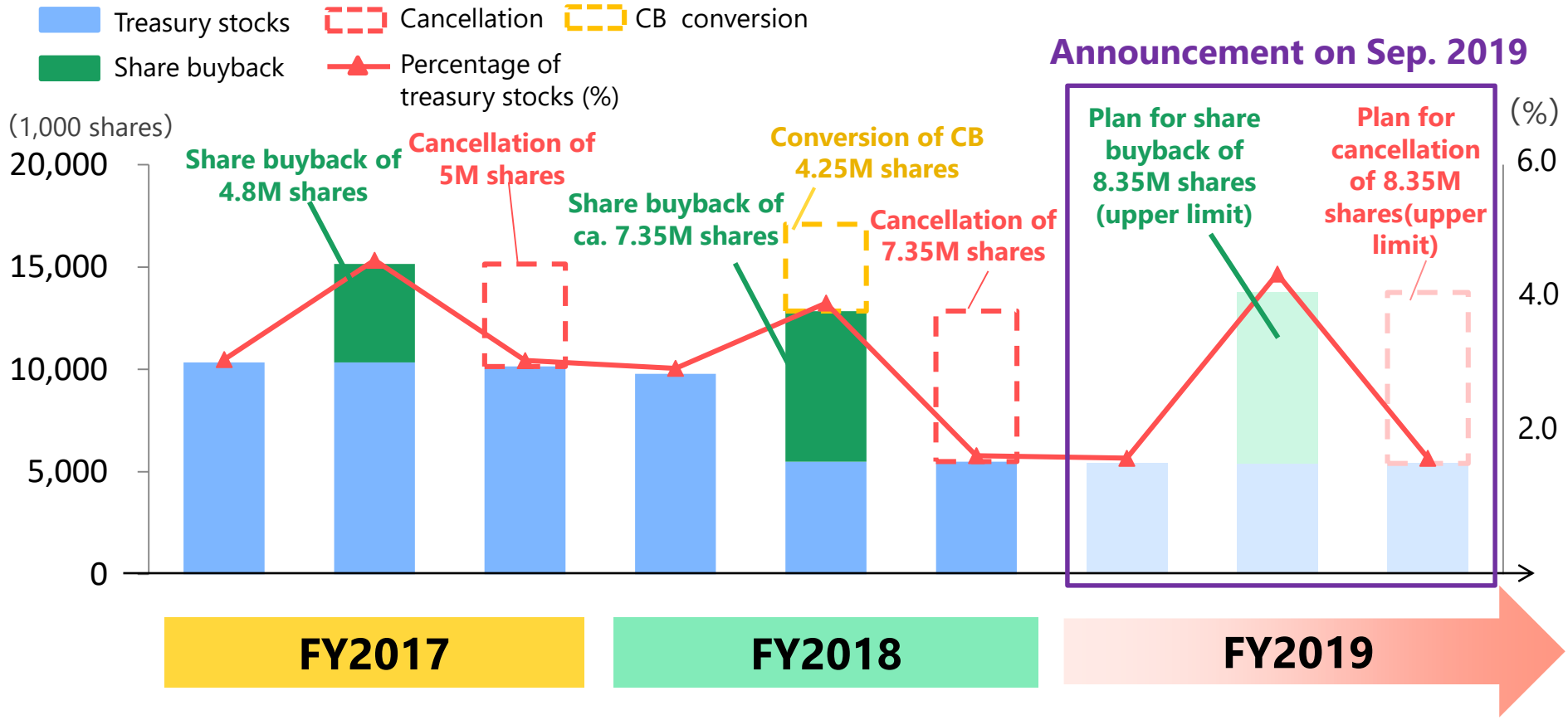
# Flexible and Prompt Capital Policy

## Share buyback

- Share buyback: 8.35M shares (upper limit)
- Total amount of buyback: 50 B yen (upper limit)
- Period: Oct. 1, 2019~Feb. 28, 2020

## Cancellation of treasury shares

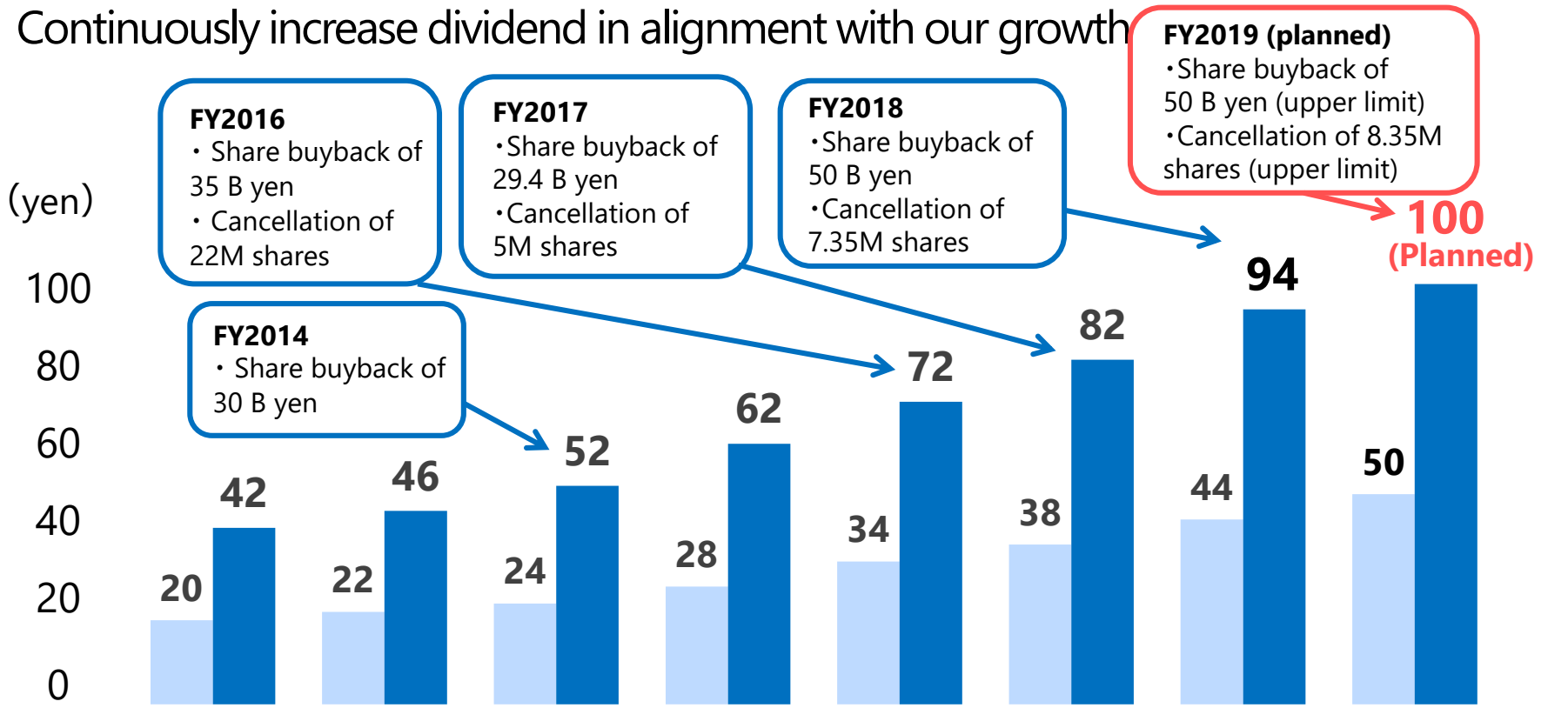
- Total shares to be cancelled: 8.35M shares (upper limit)
- Date for cancellation: Mar. 13, 2020




CB（Convertible Bond）

# Shareholder Return Policy Through Which Shareholders Can Feel Our Growth

- Plan to **increase dividend for 8 consecutive years and reach 100 yen in FY2019**
- Continuously increase dividend in alignment with our growth




| FY | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|
| DOE | 3.7 | 3.5 | 3.7 | 4.1 | 4.5 | 4.6 | 4.6 | Over 4.3 (planned) |
| ROE | 17.5 | 9.2 | 9.4 | 13.6 | 16.3 | 19.4 | 20.9 | Over 18.0 (planned) |

# Appendix

# Major Progress in 1H FY2019* (Pipeline)

| | Phase I | Phase II | Phase III | Submission | Approval, Launch |
|---|---|---|---|---|---|
| Global | **S-648414**<br>・Start of Phase I study (US) | **S-600918**<br>・Start of Phase IIb study (global) | **cefiderocol**<br>・Disclosure of results from APEKS-NP study | **cefiderocol**<br>・Recommendation of approval from FDA Advisory committee | **XOFLUZA®**<br>・Approval in Taiwan |
| In Japan | **S-812217 [zuranolone]**<br>・Completion of enrolment in Phase I study | **S-600918**<br>・Disclosure of results from Phase IIa study | **XOFLUZA®**<br>・Positive top-line results in prophylaxis study → NDA submission in Japan<br>・Disclosure of data regarding PA/I38 variants | | **INTUNIV®**<br>・Supplementally approval for adult patients |
| Out-licensed | | | **DOVATO®**<br>・Positive results in TANGO (48-week treatment for experienced patients)<br>**CAB+RPV**<br>・ATLAS2M (naïve and experienced patients)<br>**XOFLUZA®**<br>・Disclosure of results from global pediatric study (MINISTONE-2)<br>・Start of Phase III study (transmission) | **DOVATO®**<br>・Approval in Japan (naïve patients)<br>**CAB+RPV**<br>・NDA submission in EU | **DOVATO®**<br>・Approval in EU (naïve and experienced patients)<br>**XOFLUZA®**<br>・Approval in US (high risk patients) |

Infections disease
Pain/CNS
Frontier



* Progress from May 10, 2019 to Oct. 30. 2019
CAB: cabotegravir, RPV: rilpivirine

# Major Progress in 1H FY2019* (Others)

- **May**
  - Contract agreement with Molteni for the commercialization of Rizmoic® (naldemedine), an opioid-induced constipation therapeutic agent in Italy and Poland
- **June**
  - Purchase all outstanding shares of Pionnier following the conclusion of the joint study
  - Contract agreement with Ferrer for the commercialization of Rizmoic® (naldemedine), an opioid-induced constipation therapeutic agent in Spain
  - Out-licensing agreements with Eddingpharm and EOC Pharma for lusutrombopag, a thrombopoietin receptor agonist and Epertinib, an HER2/EGFR Inhibitor
- **July**
  - Out-licensing agreement with AMR Centre on COT-143, a humanized monoclonal antibody targeting the PcrV protein of *Pseudomonas aeruginosa*
- **August**
  - Participate in the United Nations Global Compact
- **October**
  - M3 and Shionogi established a new joint venture “Stream-I, Inc.”
  - New license agreement with Hsiri regarding a collaborative research and development program to discover and develop additional novel therapeutics for non-tuberculous mycobacterial (NTM) diseases and tuberculosis (TB)
  - Shionogi, Janssen, and Alzheimer’s Drug Discovery Foundation Announced a “Clinical Sample Access Agreement” at WDC 2019 Summit



* Progress from May 10, 2019 to Oct. 30. 2019

# Statement/Guidelines for the use of Xofluza® in Japan

## Statement of the Japanese Association for Infectious Diseases (JAID) regarding the use of Xofluza® (Announced on October, 2019)

1. ≥12 to 19 years of age and adults: No decision on a recommendation for Xofluza® use has been made at present due to limited clinical data.
2. Children <12 years of age: Careful consideration of the use of Xofluza®, taking into account the high rates of emergence of variant viruses with reduced susceptibility to Xofluza® in children observed in clinical studies to date.
3. Immunocompromised and severe influenza patients: No recommendation on active use of Xofluza® as monotherapy.*

Upon careful analysis of the available clinical data for Xofluza®, JAID has decided not to provide a definitive recommendation for Xofluza® use at present, but has confirmed multiple seasons of data are normally required before a recommendation for Xofluza® can be issued.

## Guidelines of the Japanese Pediatric Society (JPS) regarding the use of Xofluza® for the 2019-2020 season (Announced on October, 2019)

1. The committee does not actively recommend the use of Xofluza® in pediatric patients <12 years of age, as the reports of the clinical experience of Xofluza® in this population are currently limited and the emergence of resistant viruses has been observed.
2. While the use of Xofluza® is not to be restricted for the time being, the emergence and potential transmission of resistant viruses needs to be carefully monitored.
3. For the treatment of immunocompromised patients, Xofluza® should not be used as monotherapy as the shedding of resistant viruses may be prolonged. In the case of severe influenza or influenza complicated with pneumonia, combination therapy with Xofluza® and other anti-flu drug(s) could be considered, although the committee views that the current level of clinical evidence is insufficient and are in the process of collecting and assessing such data.*



*Please note the potential usage of XOFLUZA in this patient population(s) is not approved by the PMDA

## About PA/I38X-substituted viruses

**Data from clinical studies announced to date**

- **Incidence of PA/I38X-substituted viruses**
  - The incidence was high in younger pediatric patients
  - The incidence was higher in adults, adolescent and pediatric patients infected with A/H3N2
- **Association between the incidence of PA/I38X-substituted viruses and clinical symptoms**
  - **Adult and adolescent patients**
    There was no clear association between the incidence of PA/I38X-substituted viruses and the median time to alleviation or improvement. These data suggest clinical benefit of Xofluza in these populations irrespective of the substitution.
  - **Pediatric patients**
    It is important to continue to obtain additional data about PA/I38X-substituted viruses because the available analysis data are limited as of this moment especially in pediatric patients.

**Shionogi will continue to proactively monitor and characterize PA/I38X-substituted viruses, and will communicate findings to medical institutions and academic conferences**

# Xofluza®: Data About PA/I38X-Substituted Viruses

## Incidence of PA/I38X-substituted viruses in each clinical study

| Clinical study | Age | A/H1N1pdm | | A/H3N2 | | B | |
|---|---|---|---|---|---|---|---|
| | | Sequence Population* | ITTI population** | Sequence Population* | ITTI population** | Sequence Population* | ITTI population** |
| Pediatric study in Japan (granule, tablet)[1] | < 6 years | 20.0% (1/5) | 11.1% (1/9) | 52.2% (12/23) | 44.4% (12/27) | 0.0% (0/13) | 0.0% (0/16) |
| | >=6 years, < 12 years | 0.0% (0/2) | 0.0% (0/4) | 18.9% (10/53) | 14.5% (10/69) | 0.0% (0/3) | 0.0% (0/4) |
| Study in OwH adults and adolescents (Phase II, CAPSTONE-1) [2] | >=12 years | 3.4% (4/116) | 2.0% (4/205) | 10.3% (35/341) | 8.3% (35/423) | 0.0% (0/87) | 0.0% (0/106) |
| Study in HR adults and adolescents (CAPSTONE-2) [2] | >=12 years | 5.9% (1/17) | 3.6% (1/28) | 9.3% (13/140) | 7.1% (13/182) | 0.8% (1/129) | 0.6% (1/167) |

- **The incidence was high in younger pediatric patients under 6 years of age**
- **The incidence was higher in patients infected with A/H3N2 for adults, adolescents, and pediatric patients**

Patients with single infection were included in this analysis.

*Sequence population: Of ITTI population, patients had paired baseline and follow-up RT-PCR-positive samples evaluable for Sanger sequencing.

**ITTI population: All patients who received Xofluza with a confirmed diagnosis of influenza virus infection based on RT-PCR on Day 1. (Patients whose influenza virus after treatment was not detected were included in this population)



1 Takeki Uehara et al., OPTIONS X 2019
2 Takeki Uehara et al., ECCMID 2019

# Xofluza®: Data About PA/I38X-Substituted Viruses

## Association between the incidence of PA/I38X-substituted viruses and clinical symptoms in adult and adolescent patients

### Clinical study in OwH adults and adolescents（CAPSTONE-1）[1]

| | Xofluza®* | | Placebo** |
|---|---|---|---|
| | W/ PA/I38X-substituted viruses | W/O PA/I38X-substituted viruses | |
| N | 36 | 334 | 230 |
| Time to alleviation of symptoms (hours) | **63.1** | **51.0** | **80.2** |
| 95% CI (hours) | 52.2, 87.7 | 46.0, 56.0 | 72.6, 87.1 |

The median time to alleviation of symptoms tended to be longer in patients with PA/I38X-substituted viruses after treatment with Xofluza® than in patients without PA/I38X-substituted viruses. However, the median time to alleviation of symptoms in patients with PA/I38X-substituted viruses after treatment with Xofluza® was shorter than that in those treated with placebo.

### Clinical study in HR adults and adolescents（CAPSTONE-2）[2]

| | Xofluza®* | | Placebo** |
|---|---|---|---|
| | W/ PA/I38X-substituted viruses | W/O PA/I38X-substituted viruses | |
| N | 15 | 275 | 385 |
| Time to improvement of influenza symptoms (hours) | **62.5** | **73.2** | **102.3** |
| 95% CI (hours) | 28.3, 87.7 | 65.4, 86.9 | 92.7, 113.1 |

The median time to improvement of influenza symptoms tended to be shorter in patients with PA/I38X-substituted viruses after treatment with Xofluza® than in those without PA/I38X-substituted viruses.

**There was no clear association between the incidence of PA/I38X-substituted viruses and the median time to alleviation or improvement. These data suggest clinical benefit of Xofluza® in these populations irrespective of the substitution.**

SHIONOGI

1 Takeki Uehara et al., ECCMID 2019
2 Simon Portsmouth et al., OPTIONS X 2019

*Of Xofluza® ITTI population, patients had paired baseline and follow-up RT-PCR-positive samples evaluable for Sanger sequencing, and data for time to alleviation of symptoms or time to improvement of influenza symptoms.
**Of ITTI population, patients had data for time to alleviation of symptoms or time to improvement of influenza symptoms.

# HIV Franchise: Progress of 2-Drug Regimens

**Tivicay®, Triumeq®** **Launch: 2013~**
- **Key drug for 3-drug regimen**

**Juluca® (DTG/RPV)** **Launch: 2017~**
- **First 2-drug regimen for maintenance therapy**

**DTG/3TC** **Launch: 2019~**
- **First 2-drug regimen for naïve patients**
- Apr. 2019: Approved in US (naïve patients)
- Jul. 2019: Approved in EU (naïve patients and switch patients)
  : TANGO 48-week results (switch patients)
  : GEMINI 96-week results (naïve patients)
- Oct.-Dec. 2019: Start SALSA (switch patients)

**CAB+RPV** **Launch: 2019～**
- **First long acting injection** (monthly or bimonthly)
- Apr. 2019: NDA submission in US (monthly injection, naïve patients and switch patients),
  PDUFA date: Dec. 29, 2019 (priority review designated)
- Jul. 2019: MAA submission in EU (monthly)
- Aug. 2019: ATLAS 2M results (bimonthly injection for switch patients)

**CAB prophylaxis** **Launch: 2021~**
- **First long-acting injectable for prophylaxis** (bimonthly injection)



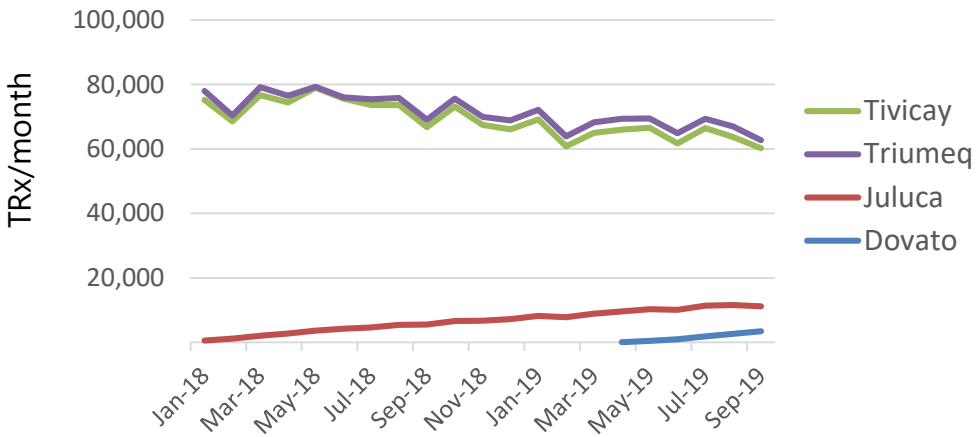
Progress from Jul. 29. 2019 to Oct. 30. 2019

DTG: dolutegravir, RPV: rilpivirine, 3TC: lamivudine , CAB: cabotegravir

# Progress of HIV Franchise

## Changes in total prescriptions of DTG franchise

**Changes in TRx for DTG franchise in the US***




- Growth of our two Drug Regimens is encouraging in that it more than offsets the decline in our 3 Drug Regimen Triumeq® as we transition to the new portfolio.
- Dovato® uptake will take time as access and physician acceptance increases supported by our data and updated treatment guidelines.

## Expectations for the growth of HIV franchise by CAB+RPV

- Once approved, it will become the first long-acting regimen for HIV infection.
- According to patient satisfaction assessment in the Phase III studies, 97% (266/273) of patients in ATLAS and 99% (257/259) of patients in FLAIR answered that they preferred long-acting injections of CAB+RPV over their previous oral regimen.**
- Provide patients with a new value proposition that is different from oral medications
  - People who have concerns with disclosure
  - People who struggle to swallow the relatively large pills
  - People who struggle with compliance
  - People who suffer from the psychological burden of being reminded daily of their HIV status

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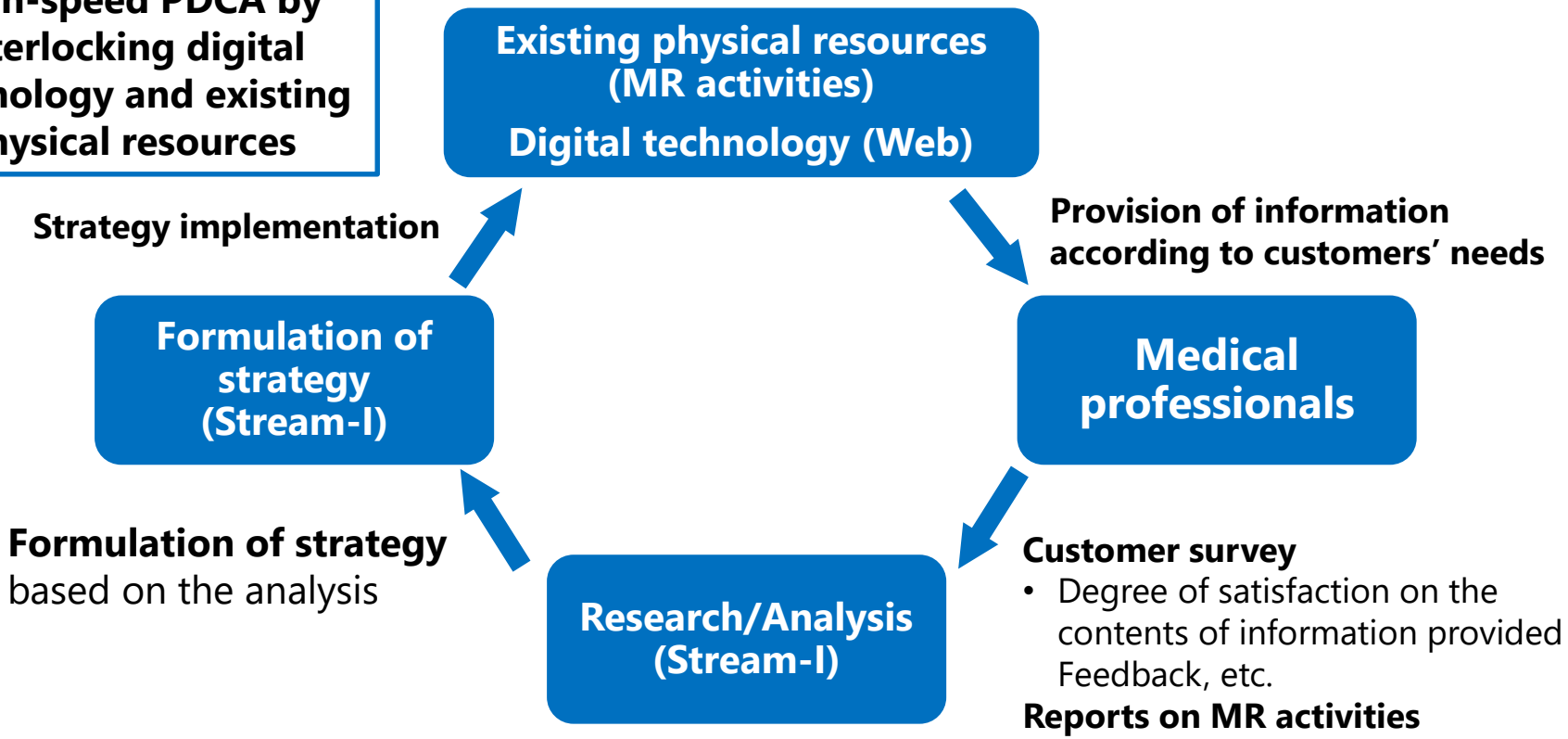
**April 30, 2019 ViiV Healthcare analyst call https://www.gsk.com/media/5411/fuelling-our-future-growth-slides.pdf
DTG: dolutegravir、3TC: lamivudine、CAB: cabotegravir、RPV: rilpivirine

# Business Innovation

## Establishment of “Stream-I”, a joint venture between M3 and Shionogi

**High-speed PDCA by interlocking digital technology and existing physical resources**




**Establishment of an information delivery model for improving productivity and supporting proper treatment**

* Stream-I: Shionogi, Transformation, Real-world, E-Detail, AI, M3, IT / Intelligence

# Establishment of “Stream-I”

## Stream-I’s contribution to the treatment of influenza

**Prevention**
- **Continuous increase in infection with influenza virus at homes and schools**

**Diagnosis**
- **Difficulty in diagnosis in early stages of infection**

**Treatment**
- **Existence of patients in serious condition**

**Potential of Stream-I**

- Prompt provision of information on the results of surveillance, promotion of precautionary measures, and proposal of new options
- Development of a new simplified diagnosis method and examination of a new medical treatment model
- Prevention of serious conditions by offering a tool to promote communication between patients and medical staff

**Offer a new, optimal option in the treatment of influenza, leading to a disease solution**

# Pipeline (as of Oct. 30, 2019)

SONG for you!

| Preclinical (target indication*) | Phase I | Phase II | Phase III | Submission |
|---|---|---|---|---|
| Influenza virus infection | **Global** | **S-600918** Refractory/unexpected chronic cough | **Cefiderocol** Multidrug-resistant Gram-negative bacterial infections | **Cefiderocol (US)** Complicated Urinary Tract Infections (cUTI), including Pyelonephritis |
| HIV infection | **S-648414** HIV infection | **S-120083** Inflammatory pain | | **Cefiderocol (EU)** Multidrug-resistant Gram-negative bacterial infections |
| RS virus infection | **S-117957** Insomnia | **S-707106** Type2 diabetes | | |
| Bacterial infection | **S-237648** Obesity | **S-488210** Head and neck squamous cell carcinoma | | |
| Mycobacterium disease | **S-588210** Solid tumor | **epertinib** Malignant tumor | | |
| Fungus infection | **Rizmoic®** Opioid-induced constipation (pediatric) | **S-588410** Bladder cancer | | |
| Vaccine for prevention | **In Japan** | **Cefiderocol** Multidrug-resistant Gram-negative bacterial infections | **Cefiderocol** Multidrug-resistant Gram-negative bacterial infections | **Oxycontin®TR** Moderate to severe chronic pain |
| Peptide | **S-812217 [Zuranolone]** Depression | **S-600918** Refractory/unexpected chronic cough | **Xofluza®** Influenza virus infection (High-dose for children) | **Xofluza®** Influenza virus infection (prophylaxis) |
| ADHD | **S-600918** Neuropathic pain | **S-005151 [Redasemtide]** Acute ischemic stroke | **Cymbalta®** Depression (pediatric) | **Xofluza®** Influenza virus infection (granule, <20 kg) |
| Opioid | **S-637880** Neuropathic pain | **S-005151 [Redasemtide]** Epidermolysis bullosa | **S-588410** Esophageal cancer | |
| Alzheimer's disease | **S-010887** Neuropathic pain | **S-237648** Obesity | | |
| Cognitive and memory deficits | **S-770108** Idiopathic pulmonary fibrosis | **S-525606** Allergic rhinitis caused by Japanese cedar allergen | | |
| Post-stroke spasticity | | **S-588410** Bladder cancer | | |
| Peptide | | **SR-0379** Cutaneous ulcer | | |
| Obesity | | **ADR-001**** Decompensated liver cirrhosis | | |
| S-723595 NASH | | | | |
| Cancer metastasis | | | | |
| S-540956 Nucleic acid adjuvant | | | | |
| Peptide | | | | |

- Infectious diseases
- Pain/CNS
- Other

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Progress from Jul. 30, 2019 to Oct. 30, 2019

** In Phase I/II

* Target indication may include some projects

# Pipeline
## - Major Out-Licensed Pipeline (as of Oct. 30, 2019)

| Preclinical | Phase I | Phase II | Phase III | Submission |
|---|---|---|---|---|
| | **GSK3342830**<br>Multidrug-resistant Gram-negative bacterial infections | | **Dovato®**<br>Treatment for HIV infection<br>TANGO study<br>(maintenance) | **Dovato® (Japan)**<br>Treatment for HIV infection<br>(naïve patients) |
| | | | **CAB LAP**<br>Prevention for HIV infection | **CAB+RPV LAP**<br>Treatment for HIV infection |
| | | | **Xofluza®**<br>Severe influenza virus infection | |
| | | | **Xofluza®**<br>Influenza virus infection<br>(pediatric) | |
| | | | **Xofluza®**<br>Influenza virus infection<br>(transmission) | |

- **Infectious diseases**
- **Pain/CNS**
- **Others**

| | |
|---|---|
| Stage progression (from Jul. 29 2019) | Xofluza® (Influenza virus infection): Submission→Approval (Taiwan)<br>Xofluza® (prophylaxis): Phase III→Submission (Japan)<br>S-600918 (Refractory/unexpected chronic cough): Phase IIb initiated (Global)<br>S-005151 [Redasemtide] (Epidermolysis bullosa): Follow-up study of Phase II initiated (Global)<br>S-648414 (Treatment for HIV infection): Phase IIb initiated (US)<br>Dovato®: Phase III→Submission (Japan)<br>Xofluza®(High risk patients): Submission→Approval (US)<br>Xofluza®(transmission): Phase III initiated |



Progress from Jul. 30, 2019 to Oct. 30, 2019

DTG: dolutegravir 3TC: lamivudine CAB：cabotegravir RPV: rilpivirine

# Forward-Looking Statements

- Forecast or target figures in this material are neither official forecasts of earnings and dividends nor guarantee of target, achievement and forecasts, but present the midterm strategies, goals and visions. Official earnings guidance should be referred to in the disclosure of the annual financial report (*kessan tanshin*) in accordance with the rules set by Tokyo Stock Exchange.
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- For products that are approved, there are manufacturing and marketing risks and uncertainties, which include, but are not limited to, inability to build production capacity to meet demand, inavailability of raw materials, and failure to gain market acceptance.
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