R&D DAY AGENDA – TOKYO, NOVEMBER 21, 2019

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 11:00 – 11:05 | Welcome and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance                               |
| 11:05 – 11:45 | Realizing the Potential of Plasma-derived Therapies  
Julie Kim, President, Plasma-Derived Therapies Business Unit |
| 11:45 – 12:15 | A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies  
Christopher Morabito, M.D., Head of R&D, Plasma-Derived Therapies |
| 12:15 – 12:45 | Q&A session                                                                                      |
| 12:45 – 13:25 | Lunch Break                                                                                      |
| 13:25 – 13:35 | Welcome back and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance                               |
| 13:35 – 13:45 | Takeda: A Global Values-Based, R&D-Driven Biopharmaceutical Leader  
Christophe Weber, President & CEO Takeda                                        |
| 13:45 – 14:15 | Translating Science into Highly Innovative, Life-changing Medicines  
Andy Plump, President R&D                                                      |
| 14:15 – 14:40 | Oncology and Cell Therapies with Spotlight on CAR-NK  
Chris Arendt, Head Oncology Drug Discovery Unit                                 |
| 14:40 – 15:00 | Spotlight on Oncology Opportunities  
- TAK-788: Rachel Brake, Global Program Lead  
- Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit            |
| 15:00 – 15:20 | Break                                                                               |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy  
Dan Curran, Head Rare Disease Therapeutic Area Unit                              |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists  
Deborah Hartman, Global Program Lead                                             |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease  
Ask Parikh, Head GI Therapeutic Area Unit                                      |
| 16:20 – 17:00 | Panel Q&A Session                                                                     |
| 17:00     | Drinks reception                                                                   |
IMPORTANT NOTICE

For the purposes of this notice, “presentation” means this document, any oral presentation, any question and answer session and any written or oral material discussed or distributed by Takeda-Pharmavestical Company Limited (“Takeda”) regarding this presentation. This presentation (including any oral briefing and any question and answer in connection with it) is not intended to, and does not constitute, represent or form part of any offer, invitation or solicitation of any offer to purchase, otherwise acquire, subscribe for, exchange, sell or otherwise dispose of, any securities or the solicitation of any vote or approval in any jurisdiction. No shares or other securities are being offered to the public by means of this presentation. No offering of securities shall be made in the United States except pursuant to registration under the U.S. Securities Act of 1933, as amended, or an exemption therefrom. This presentation is being given (together with any further information which may be provided to the recipient) on the condition that it is for use by the recipient for information purposes only (and not for the evaluation of any investment, acquisition, disposal or any other transaction). Any failure to comply with these restrictions may constitute a violation of applicable securities laws.

The companies in which Takeda directly or indirectly owns investments are separate entities. In this presentation, “Takeda” is sometimes used for convenience where references are made to Takeda and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies.

Forward-Looking Statements

This presentation and any materials distributed in connection with this presentation may contain forward-looking statements, beliefs or opinions regarding Takeda’s future business, future position and results of operations, including estimates, forecasts, targets and plans for Takeda. Without limitation, forward-looking statements often include words such as “targets”, “plans”, “believed”, “hopes”, “forecast”, “expects”, “likely”, “implied”, “intended”, “sees”, “will”, “may”, “should”, “would”, “could” “anticipated”, “estimated”, “projected” or similar expressions or the negative thereof. Forward-looking statements in this document are based on Takeda’s estimates and assumptions as of the date hereof. Such forward-looking statements do not represent any guarantee by Takeda or its management of future performance and involve known and unknown risks, uncertainties and other factors, including but not limited to, the economic circumstances surrounding Takeda’s global business, including general economic conditions in Japan and the United States; competitive pressure and developments; changes to applicable laws and regulations; the success or failure of product development programs; decisions of regulatory authorities and the timing thereof; fluctuations in interest and currency exchange rates; claims or concerns regarding the safety or efficacy of marketed products or product candidates; the timing and impact of post-merger integration efforts with acquired companies; and the ability to divest assets that are not core to Takeda’s operations and the timing of any such divestment(s), any of which may cause Takeda’s actual results, performance, achievements or financial position to be materially different from any future results, performance, achievements or financial position expressed or implied by such forward-looking statements. For more information on these and other factors which may affect Takeda’s results, performance, achievements, or financial position, see “Item 3. Key Information—D. Risk Factors” in Takeda’s most recent Annual Report on Form 20-F and Takeda’s other reports filed with the U.S. Securities and Exchange Commission, available on Takeda’s website at https://www.takeda.com/investors/reports/sec-filings/ or at www.sec.gov. Failure results, performance, achievements or financial position of Takeda could differ materially from those expressed or implied by the forward-looking statements. Persons receiving this presentation should not rely unduly on any forward-looking statements. Takeda undertakes no obligation to update any of the forward-looking statements contained in this presentation or any other forward-looking statements it may make, except as required by law or stock exchange rule. Past performance is not an indicator of future results and the results of Takeda in this presentation may not be indicative of, and are not an estimate, forecast or projection of Takeda’s future results.

Medical Information

This presentation contains information about products that may not be available in all countries, or may be available under different trademarks, for different indications, in different dosages, or in different strengths. Nothing contained herein should be considered a solicitation, promotion or advertisement for any prescription drugs including the ones under development.

Financial Information

Takeda’s financial statements are prepared in accordance with International Financial Reporting Standards (“IFRS”).

The revenue of Shire plc (“Shire”), which were presented, in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”), have been conformed to IFRS, without material difference.

The Shire acquisition closed on January 8, 2019, and our consolidated results for the fiscal year ended March 31, 2019, include Shire’s results from January 8, 2019 to March 31, 2019. References to “Legacy Shire” businesses are to those businesses acquired through the Shire acquisition, and therefore may not accurately reflect the effect on our financial condition and results of operations if the Shire acquisition had actually happened as of April 1, 2018. Moreover, this pro forma information gives effect to certain transactions and other events which are not directly attributable to the Shire acquisition and/or which happened subsequently to the Shire acquisition, such as divestitures and the effects of the purchase price allocation for the Shire acquisition, and therefore may not accurately reflect the effect on our financial condition and results of operations if the Shire acquisition had actually been completed on April 1, 2018. Therefore, undue reliance should not be placed on the pro forma information included herein.

Our mission is to strive towards Better Health and a Brighter Future for people worldwide through leading innovation in medicine.
~50,000 PEOPLE DEDICATED TO BRINGING BETTER HEALTH TO PATIENTS

ZURICH

SINGAPORE

TOKYO Takeda Global HQ

GREATER BOSTON AREA Global Hub
3 RESEARCH SITES

36 MANUFACTURING SITES

27 COUNTRIES
LONG-TERM VALUE FOR PATIENTS, SOCIETY AND INVESTORS
Positioned for Sustainable Revenue Growth

Note: The above chart represents conceptual changes in revenue through 2024 and 2029 demonstrating growth over time offsetting loss of exclusivities and achieving single digit growth as compared to 2018 pro forma revenue which represents the sum of Takeda revenue for FY2018 plus Shire revenue for the same period (not including the legacy Shire oncology business, which was sold in August 2018, converted to $ at the rate of $5 = 111 JPY and converted from US GAAP to IFRS. Actual future net sales achieved by our commercialized products and pipelines will be different, perhaps materially so, as there is a range of possible outcomes from clinical development driven by a number of variables, including safety, efficacy and product labeling. In addition, if a product is approved, the effect of commercial factors including the patient population, the competitive environment, pricing and reimbursement is also uncertain. Sales estimate in Wave 2 Pipeline is non-risk adjusted.
## R&D DAY AGENDA – TOKYO, NOVEMBER 21, 2019

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 11:00 – 11:05 | Welcome and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance |
| 11:05 – 11:45 | Realizing the Potential of Plasma-derived Therapies  
Julie Kim, President, Plasma-Derived Therapies Business Unit |
| 11:45 – 12:15 | A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies  
Christopher Morabito, M.D., Head of R&D, Plasma-Derived Therapies |
| 12:15 – 12:45 | Q&A session |
| 12:45 – 13:25 | Lunch Break |
| 13:25 – 13:35 | Welcome back and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance |
| 13:35 – 13:45 | Takeda: A Global Values-Based, R&D-Driven Biopharmaceutical Leader  
Christophe Weber, President & CEO Takeda |
| 13:45 – 14:15 | Translating Science into Highly Innovative, Life-changing Medicines  
Andy Plump, President R&D |
| 14:15 – 14:40 | Oncology and Cell Therapies with Spotlight on CAR-NK  
Chris Arendt, Head Oncology Drug Discovery Unit |
| 14:40 – 15:00 | Spotlight on Oncology Opportunities  
- TAK-788: Rachel Brake, Global Program Lead  
- Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit |
| 15:00 – 15:20 | Break |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy  
Don Curran, Head Rare Disease Therapeutic Area Unit |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists  
Deborah Hartman, Global Program Lead |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease  
Asit Parikh, Head GI Therapeutic Area Unit |
| 16:20 – 17:00 | Panel Q&A Session |
| 17:00 | Drinks reception |
WHAT YOU WILL HEAR TODAY

1. Our portfolio and pipeline will drive growth and offset key patent expirations

2. We are investing in novel mechanisms and capabilities for a sustainable future

3. We have cultivated an environment of empowerment, accountability and agility
WE ARE POSITIONED TO DELIVER NEAR-TERM & SUSTAINED GROWTH

ONCOLOGY
- TAK-252: Solid tumors
- TAK-164: GI malignancies
- TAK-981: Multiple cancers
- TAK-788: IL-33CC
- TAK-924: HR-MDS
- TAK-007: Hematologic malignancies
- TAK-924: AML
- TAK-573: R/R MM
- TAK-007: Hematologic malignancies
- TAK-788: IL-33CC
- TAK-924: AML
- TAK-573: R/R MM

RARE DISEASES
- Immunology
- Hematology
- Metabolic
- TAK-620: CMV infect. in transplant
- TAK-609: Hunter CNS (T1)
- TAK-611: MLD (T1)
- TAK-607: Complications of prematurity
- TAK-755: cTTP
- TAK-935: DEE
- Orexin2R-ag (TAK-925,994) Neurology
- TAK-341: Parkinson’s Disease
- Orexin2R-ag (TAK-925,994) Neurology
- TAK-418: Kabuki Syndrome
- TAK-653: T1D
- TAK-831: CAN
- TAK-311: Hunter CNS
- TAK-934: POGD
- TAK-003: Dengue Vaccine
- TAK-214: Norovirus Vaccine
- TAK-426: Zika Vaccine
- TAK-218: EV71 vaccine

NEUROSCIENCE
- TAK-721: ETE

GASTROENTEROLOGY
- Kuma062: Celiac Disease
- TAK-101: Celiac Disease (post-op and ileitis)
- TAK-954: POED
- TAK-906: Gastroparesis
- TAK-951: Narcolepsy & vomiting

VACCINES
- TAK-003: Dengue Vaccine
- TAK-214: Norovirus Vaccine
- TAK-426: Zika Vaccine
- TAK-021: EV71 vaccine

TARGETED INNATE IMMUNE MODULATION
- CELL THERAPY AND IMMUNE ENGAGERS
- TARGETED IMMUNE MODULATION
- NEXT-GEN CHECKPOINT MODULATORS

INTEGRATION OF SHIRE
- 18 assets added to the clinical pipeline*
- Creation of a Rare Diseases Therapeutic Area
- Access to world-class Gene Therapy capabilities

EXPANSION OF OUR GLOBAL BRANDS
- VARSITY study demonstrated head-to-head superiority of Entyvio vs adalimumab and published in New England Journal of Medicine
- TAKHYRO indication expansions in bradykinin mediated angioedema
- Expecting >15 approvals in China over the next 5 years

UNPRECEDENTED NMEs
- 17 NMEs in Phase 2 and Phase 3
- Potentially curative novel mechanisms (e.g. TAK-101, Orexin2R-ag, CAR-NK)
- Momentum in Cell Therapies, including new partnership with MD Anderson

* Including approved products with ongoing R&D investment

1. Projected timing of approvals depending on data read-outs; some of these Wave 1 target approval dates assume accelerated approval
2. Some Wave 2 assets could be accelerated into Wave 1 if they have breakthrough data
3. Projected approval date assumes filing on Phase 2 data
4. TAK-079 to be developed in Rare Diseases indications myasthenia gravis (MG) and immune thrombocytopenic purpura (ITP) (FPI projected in each indication in 2H FY19)

2019: A WATERSHED YEAR FOR TAKEDA
PATIENT-DRIVEN AND SCIENCE-FIRST IN 3 CORE AREAS

INNOVATIVE BIOPHARMA

ONCOLOGY
RARE DISEASES
NEUROSCIENCE
GASTROENTEROLOGY

PLASMA DERIVED THERAPIES
Complementing our rare disease focus

VACCINES BUSINESS UNIT
Differentiated Dengue vaccine

WE ARE DOING MORE FOR OUR PATIENTS

8 POTENTIAL BIC/FIC NMEs in PIVOTAL STUDIES

~40 NEW MOLECULAR ENTITY CLINICAL STAGE ASSETS

~4,500 R&D EMPLOYEES GLOBALLY

DIVERSIFIED MODALITIES IN RESEARCH

~70%

~50%

PIPELINE WITH ORPHAN DRUG DESIGNATION

200+ ACTIVE PARTNERSHIPS

1. BIC/FIC Best-In-Class/First-In-Class (incl. relugolix). Three NMEs in pivotal studies in 2018
2. 31 Orphan Drug Designations in at least one indication for assets in Phase 1 through LCM in 2019 versus 15 in 2018
WE ARE TAKING COURAGEOUS RISKS TO MAKE A CRITICAL DIFFERENCE

“There is a considerable need for improved treatments for individuals with NT1, which is caused by the loss of orexin-producing neurons in the brain”

Dr. Makoto Honda, Sleep Disorders Project Leader, Tokyo Metropolitan Institute of Medical Science

Data presented at World Sleep conference

NOVEL TARGET MECHANISMS WITH HUMAN VALIDATION

MODALITY DIVERSIFICATION

~70%

5 Accelerated programs
20 NME stage-ups since FY18
19 Indications terminated or externalized since FY18

FAST GO / NO-GO DECISION MAKING

WE ARE CULTIVATING THE BEST SCIENCE THROUGH DIFFERENTIATED PARTNERSHIPS...

Select partnerships*

Access to Innovation
Risk-Sharing
Expanding Capacity

Total Value in Public & Private Equity >$1B

* Externalizations and venture investments are not included
WE ARE NURTURE INNOVATION WHEREVER IT OCCURS

TAK-925, TAK-994 Narcolepsy
TAKEDA PARTNER-SOURCED

TAKEDA/PARTNER SHARED DEVELOPMENT & COMMERCIALIZATION

TAKEDA DEVELP & COMMERCIALIZES

TAKEDA/Partner Share Development & Commercialization

TAK-924 Myelodysplastic Syndrome
TAK-573 Multiple Myeloma

CD19 1XX (CAR-T)
Kuma-062 Celiac

Psychiatry Assets
Denali Alzheimer Disease

Representative examples only

TO DRIVE HIGHER RETURN ON OUR $4.5B ANNUAL R&D INVESTMENT

PRIORITIZED R&D PORTFOLIO FLEXIBLE R&D FUNDING MODEL

BALANCED SPEND TARGETED POPULATIONS PARTNERSHIP MODEL

Minimize internal spend and infrastructure Smaller trials, lower costs, potential longer exclusivity Success driven milestone payments
A RESEARCH ENGINE FUELING A SUSTAINABLE PIPELINE

POTENTIAL NME PIVOTAL STUDY STARTS BY YEAR

IMPROVED PRODUCTIVITY

- Research momentum building with a projected ~18 portfolio entries in FY19
- Productivity likely to increase with expansion of cell and gene therapy capabilities
- Leveraging partnerships to access the best clinical or preclinical innovation

Note: Projections assume successful data readouts

PIPELINE INVESTMENTS SUPPORTING NEAR-TERM GROWTH

WAVE 1

- INNOVATIVE EXPANSIONS
- NEW MOLECULAR ENTITIES
WE ARE DRIVING EXPANSION OF OUR GLOBAL BRANDS

SELECT GLOBAL GROWTH BRANDS

<table>
<thead>
<tr>
<th>TAU</th>
<th>Therapies</th>
<th>New Indications / Geographic Expansions</th>
<th>Target (FY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONC</td>
<td>Alunbrig</td>
<td>1L Non Small Cell Lung Cancer</td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>Ninlaro</td>
<td>ND MM Maintenance (non-SCT and post-SCT)</td>
<td>2020 / 2022</td>
</tr>
<tr>
<td>Rare</td>
<td>Braken ReoX</td>
<td>Bradykinin Mediated Angioedema</td>
<td>2024</td>
</tr>
<tr>
<td></td>
<td>Prophylactic Treatment of von Willebrand Disease</td>
<td></td>
<td>2021</td>
</tr>
<tr>
<td>GI</td>
<td>Ulcerative Colitis, Crohn’s Disease</td>
<td>Ulcerative Colitis, Crohn’s Disease (subcutaneous formulation)</td>
<td>2019 / 2020</td>
</tr>
<tr>
<td></td>
<td>Graft versus Host Disease (prophylaxis)</td>
<td></td>
<td>2022</td>
</tr>
<tr>
<td></td>
<td>Complex Perianal Fistulas</td>
<td></td>
<td>2021</td>
</tr>
</tbody>
</table>

SELECT REGIONAL EXPANSIONS

<table>
<thead>
<tr>
<th>Region</th>
<th>Therapies</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>relugolix, cabozantinib, niraparib</td>
</tr>
<tr>
<td>Japan</td>
<td>Takeda</td>
</tr>
</tbody>
</table>

ND MM: newly diagnosed multiple myeloma
SCT: stem cell transplant
* VONVENDI is emerging as a global brand
Estimated dates as of November 14, 2019

WAVE 1 NEW MOLECULAR ENTITIES HAVE POTENTIAL TO DELIVER >$10B AGGREGATE PEAK SALES...

TARGET APPROVAL

<table>
<thead>
<tr>
<th>ONCOLOGY</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-788</td>
<td>2L NSCLC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-924</td>
<td>HR-MDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-788</td>
<td>2L NSCLC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-924</td>
<td>HR-MDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RARE DISEASES</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-620</td>
<td>CMV infect. in transplant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-690</td>
<td>Hunter CIG (17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-755</td>
<td>CTFF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-611</td>
<td>MGU (17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAK-607</td>
<td>CMV prophylaxis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEUROSCIENCE</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-935</td>
<td>Orexin2R-ag (TAK-825/794) Hematology 13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GASTRO-ENTEROLOGY</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-721</td>
<td>EOE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VACCINES</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-003</td>
<td>Dengue Vaccine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14 potential NME launches which represent best-in-class or first-in-class therapies to advance patient standard of care

Peak sale estimate of >$10B is non-risk adjusted
1. Projected timing of approvals depending on data read-outs; some of these Wave 1 target approval dates assume accelerated approval
2. Projected approval date assumes filing on Phase 2 data

1. Orphan potential in at least one indication
Estimated dates as of November 14, 2019

Estimated dates as of November 14, 2019
...AND ARE EXPECTED TO DELIVER LIFE-CHANGING MEDICINES

POTENTIAL FIRST-IN-CLASS OR BEST-IN-CLASS NMEs

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>MECHANISM</th>
<th>INDICATION</th>
<th>TARGET APPROVAL DATE (FY)</th>
<th>ADDRESSABLE POPULATION (IN US)1</th>
<th>ADDRESSABLE POPULATION (WW)2,3</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-788</td>
<td>EGFR inhibitor (exon 20)</td>
<td>NSCLC – 2L / 1L</td>
<td>2021* / 2023</td>
<td>~2k</td>
<td>~20 - 30k</td>
</tr>
<tr>
<td>TAK-007</td>
<td>NAE inhibitor</td>
<td>HR-MDS / AML</td>
<td>2021+ / 2024</td>
<td>~7k / ~12k</td>
<td>15 - 20k / 20 - 25k</td>
</tr>
<tr>
<td>TAK-609</td>
<td>CD19 CAR-NK</td>
<td>Hematologic malignancies</td>
<td>2023</td>
<td>~9k</td>
<td>~15 - 25k</td>
</tr>
<tr>
<td>TAK-611</td>
<td>ERT / I25 replacement</td>
<td>Hunter CNS (IT)</td>
<td>2021</td>
<td>~250</td>
<td>~1 - 1.5k</td>
</tr>
<tr>
<td>TAK-755</td>
<td>UL97 kinase inh</td>
<td>CMV infect. in transpl.</td>
<td>2021</td>
<td>~7 - 15k</td>
<td>~25 - 45k</td>
</tr>
<tr>
<td>TAK-924</td>
<td>IGF-1/IGFBP3</td>
<td>Complications of prematurity</td>
<td>20245</td>
<td>~25k</td>
<td>~80 - 90k</td>
</tr>
<tr>
<td>TAK-007</td>
<td>ERT / alylsulfatase A</td>
<td>MLD (IT)</td>
<td>2023</td>
<td>~350</td>
<td>~1 - 2k</td>
</tr>
<tr>
<td>TAK-788</td>
<td>Oral anti-inflammatory</td>
<td>Eosinophilic Esophagitis</td>
<td>2020</td>
<td>~150k</td>
<td>Under evaluation</td>
</tr>
<tr>
<td>TAK-003</td>
<td>Vaccines</td>
<td>Dengue</td>
<td>2021</td>
<td>~32M</td>
<td>~1.8B</td>
</tr>
</tbody>
</table>

1. Projected timing of approvals depending on data read-outs; some of these target approval dates assume accelerated approval
2. Estimated number of patients projected to be eligible for treatment in markets where the product is anticipated to be commercialized, subject to regulatory approval
3. For TAK-788, TAK-924, TAK-007, TAK-607 and TAK-620 the addressable population represent annual incidence
4. Projected approval date assumes filing on Phase 2 data
5. Currently in a non-pivotal Ph 2; interim stage gates may advance program into pivotal trial for target approval by 2024

IN SUMMARY: ROBUST NEAR-TERM GROWTH

Potential NME Approval
Potential Global Brand Extension
Potential Regional Brand Extension

Potential approvals by fiscal year as of November 14, 2019
The target dates are estimates based on current data and subject to change
SUSTAINED GROWTH BEYOND FY25

WAVE 2

NOVEL MECHANISMS

NEXT-GENERATION PLATFORMS

DRIVEN BY A CLINICAL PIPELINE OF NOVEL MECHANISMS...

TARGET APPROVAL1 → FY25 AND BEYOND

ONCOLOGY

TAK-164
GI malignancies

TAK-252
Solid tumors

TAK-573
H/R/MM

TAK-981
Multiple cancers

RARE DISEASES

TAK-0792
MG, ITP

TAK-754
HemA

TAK-755
ITTP, SCD

TAK-531
Hunter CND

NEUROSCIENCE

TAK-341
Parkinson’s Disease

TAK-418
Kabuki Syndrome

WVE-120101
Huntington’s Disease

WVE-120102
Huntington’s Disease

GASTROENTEROLOGY

Kuma062
Celiac Disease

TAK-101
Celiac Disease

TAK-906
Gastroenteritis

TAK-954
POGD

TAK-951
Gastroenteritis

TAK-021
Ev71 Vaccine

VACCINES

TAK-214
Norovirus Vaccine

TAK-426
Zika Vaccine

Rich early clinical pipeline of potentially transformative and curative NMEs

1. Some Wave 2 assets could be accelerated into Wave 1 if they have breakthrough data
2. TAK-079 to be developed in Rare Diseases indications myasthenia gravis (MG) and immune thrombocytopenic purpura (ITP) (ITP) projected for 2H FY19

Orphan potential in at least one indication

Estimated dates as of November 14, 2019
...AND WITH OUR NEXT-GENERATION PLATFORMS

<table>
<thead>
<tr>
<th>TARGET APPROVAL</th>
<th>FY25 AND BEYOND</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ONCOLOGY</strong></td>
<td></td>
</tr>
<tr>
<td>CAR-T</td>
<td></td>
</tr>
<tr>
<td>GammaDelta</td>
<td></td>
</tr>
<tr>
<td>CAR-KR</td>
<td></td>
</tr>
<tr>
<td><strong>IMMUNE ENGAGERS</strong></td>
<td></td>
</tr>
<tr>
<td>TCR CAR</td>
<td></td>
</tr>
<tr>
<td><strong>TARGETED INNATE IMMUNE MODULATION</strong></td>
<td></td>
</tr>
<tr>
<td>Antigens</td>
<td></td>
</tr>
<tr>
<td>STING</td>
<td></td>
</tr>
<tr>
<td>SUMOylation</td>
<td></td>
</tr>
<tr>
<td><strong>NEXT-GEN CHECKPOINT MODULATORS</strong></td>
<td></td>
</tr>
<tr>
<td>Agonist-redirected checkpoints</td>
<td></td>
</tr>
<tr>
<td>Humabodies</td>
<td></td>
</tr>
<tr>
<td>CuraDev, Takeda</td>
<td></td>
</tr>
</tbody>
</table>

Harnessing the potential of cell and gene therapies and other diverse modalities

RARE DISEASES

<table>
<thead>
<tr>
<th>IMMUNOLOGY</th>
<th>GENETHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemophilia</td>
<td>Lysosomal Storage Diseases</td>
</tr>
</tbody>
</table>

NEUROSCIENCE

<table>
<thead>
<tr>
<th>GENETHERAPY</th>
<th>OTHER PLATFORMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurodegenerative Diseases</td>
<td>RNA Modulation</td>
</tr>
<tr>
<td>StrideBio</td>
<td>Wave, Stephane</td>
</tr>
</tbody>
</table>

GASTROENTEROLOGY

<table>
<thead>
<tr>
<th>GENETHERAPY</th>
<th>MICROBIOME</th>
<th>CELL THERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>FIN-524</td>
<td>Ambys</td>
</tr>
<tr>
<td>Ambys</td>
<td>Microbial Consortia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Radysite</td>
<td></td>
</tr>
</tbody>
</table>

Some Wave 2 assets could be accelerated into Wave 1 if they have breakthrough data

Estimated dates as of November 14, 2019

INVESTING IN CAPABILITIES TO POSITION US FOR SUCCESS

<table>
<thead>
<tr>
<th><strong>Cell Therapy</strong></th>
<th>• 5 clinical programs by end of FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Disruptive platforms, including off-the-shelf cell-therapies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Gene Therapy</strong></th>
<th>• World-class gene therapy manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Accessing innovation through partnerships (e.g. Stridebio, Ambys)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Data Sciences</strong></th>
<th>• Accelerate clinical development with real world data (e.g. TAK-788)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Use machine learning to identify rare disease patients</td>
</tr>
</tbody>
</table>
COMMITTED TO OUR PEOPLE

LIVING OUR VALUES THROUGHOUT THE INTEGRATION PROCESS

December 2018
Leadership Team and Proposed R&D Operating Model Announced

April 2019
Prioritization of Combined Pipeline and Portfolio

August 2019
R&D Employees Informed of Employment Status*

* Where legally cleared
STRONG LEADERSHIP EXECUTING ON OUR VISION

New hire

Sarah Sheik to succeed Emiliangelo Ratti upon his retirement beginning November 25

Sarah Sheik
Head, Neuroscience Therapeutic Area Unit*

OUR COMMITMENT TO OUR PEOPLE IS BEING RECOGNIZED

Boston Business Journal
2019 Best Places to Work

Working Mother
100 Best Companies 2019

Best Workplaces
in Health Care & Biopharma

CEO Cancer Gold Standard

Great Place To Work.

Best Places to Work 2019 for LGBTQ Equality

100% Corporate Equality Index
WE ARE POSITIONED TO DELIVER NEAR-TERM & SUSTAINED GROWTH

**TARGET APPROVAL**

<table>
<thead>
<tr>
<th>WAVE 1</th>
<th>WAVE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY20</td>
<td>FY21</td>
</tr>
<tr>
<td>FY22</td>
<td>FY23</td>
</tr>
<tr>
<td>FY24</td>
<td>FY25 AND BEYOND</td>
</tr>
</tbody>
</table>

**CLINICAL-STAGE NMEs**

- **ONCOLOGY**
  - TAK-789 1L NSCLC
  - TAK-924 MR-ARDS
  - TAK-788 IL-NSCLC
- **RARE DISEASES**
  - TAK-620 CMV infected in transplant
  - TAK-607 Complications of permeability
  - TAK-755 cTTP
- **NEUROSCIENCE**
  - TAK-935 BBE
  - Orexin2R-ag (TAK-935/984) Neurology/T1
- **GASTRO-ENTEROLOGY**
  - TAK-721 EoE
- **VACCINES**
  - TAK-003 Dengue Vaccine
  - TAK-214 Norovirus Vaccine
  - TAK-426 Zika Vaccine
  - TAK-021 EV71 vaccine

**PLATFORMS**

- **CELL THERAPY AND IMMUNE ENGAGERS**
- **TARGETED IMMUNE MODULATION**
- **NEXT-GEN CHECKPOINT MODULATORS**

**Other Platforms**

- **IMMUNE MODULATION**
- **GENE THERAPY**
- **MICROBIOME**
- **CELL THERAPY**

---

_R&D DAY AGENDA – TOKYO, NOVEMBER 21, 2019_

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 – 11:05</td>
<td>Welcome and Introduction of Presenters</td>
</tr>
<tr>
<td>11:05 – 11:45</td>
<td>Realizing the Potential of Plasma-derived Therapies</td>
</tr>
<tr>
<td>11:45 – 12:15</td>
<td>A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies</td>
</tr>
<tr>
<td>12:15 – 12:45</td>
<td>Q&amp;A session</td>
</tr>
<tr>
<td>12:45 – 13:25</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>13:35 – 13:45</td>
<td>Takeda: A Global Values-Based, R&amp;D-Driven Biopharmaceutical Leader</td>
</tr>
<tr>
<td>13:45 – 14:15</td>
<td>Translating Science into Highly Innovative, Life-changing Medicines</td>
</tr>
<tr>
<td>14:15 – 14:40</td>
<td>Oncology and Cell Therapies with Spotlight on CAR-NK</td>
</tr>
</tbody>
</table>
| 14:40 – 15:00 | Spotlight on Oncology Opportunities | • TAK-788: Rachel Brake, Global Program Lead
  • Pevonemistat: Phil Rowlands, Head Oncology Therapeutic Area Unit |
| 15:00 – 15:20 | Break |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy | Dan Curran, Head Rare Disease Therapeutic Area Unit |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists | Deborah Hartman, Global Program Lead |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease | Asit Parikh, Head GI Therapeutic Area Unit |
| 16:20 – 17:00 | Panel Q&A Session |
| 17:00 | Drinks reception |
TAKEDA ONCOLOGY: INNOVATIVE CELL THERAPIES & NEW FRONTIERS IN IMMUNO-ONCOLOGY

Chris Arendt, PhD
Head of Oncology Drug Discovery Unit
Takeda Pharmaceutical Company Limited
Tokyo
November 21, 2019

A CURATIVE-INTENT IMMUNO-ONCOLOGY PIPELINE IS TAKING SHAPE

**WAVE 1**
NMEs that complement our global brands

- **Hematologic Malignancies**
  - TAK-924
    - FY21 target approval
  - TAK-007
    - FY23 target approval
  - TAK-788
    - FY21 target approval

- **Lung Cancer & Solid Tumors**

**WAVE 2**
Leading platforms in immuno-oncology and cell therapies
PARTNERSHIPS DRIVE OUR DIFFERENTIATED EARLY CLINICAL PIPELINE

Unique Partnership Model

• Innovative, disruptive platforms
• Agility in ‘open lab’ model

Differentiated Portfolio

• Harness innate immunity
• Eye towards solid tumors

THE FIRST BREAKTHROUGHS IN CANCER IMMUNOTHERAPY TARGET T CELLS

T CELL CHECKPOINT INHIBITORS

PD-1
CTLA-4

FIRST-GEN CAR-Ts

Adapted from Chen & Mellman, Immunity 2013
OUR FOCUS IS ON NOVEL MECHANISMS IN THE CANCER-IMMUNITY CYCLE

1. Innate immune modulation
2. Novel-scaffold immune checkpoint platforms
3. Next-gen cell therapy & immune engager platforms

Adapted from Chen & Mellman, Immunity 2013

EMERGING STRENGTH IN TARGETED INNATE IMMUNE MODULATION

**HIGH UNMET NEED**
Patients refractory/ unresponsive to current immunotherapies

**OUR DIFFERENTIATED APPROACH**
Systemic therapies leveraging innate immunity to enhance response breadth, depth & durability

<table>
<thead>
<tr>
<th>PLATFORM</th>
<th>PARTNER</th>
<th>MECHANISM-OF-ACTION</th>
<th>PROGRAMS</th>
<th>PRE-CLINICAL</th>
<th>PH 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>STING agonism</td>
<td><a href="#">CURADEV</a></td>
<td>Innate-to-adaptive priming</td>
<td>TAK-676 (STING agonist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Targeted STING agonist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUMOylation</td>
<td></td>
<td>Innate immune enhancer</td>
<td>TAK-981</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TAK-981 (ADCC combo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attenukine™</td>
<td><a href="#">teva</a></td>
<td>Targeted attenuated IFN-α</td>
<td>TAK-573 (CD38-Attenukine™)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Next-gen Attenukine™</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ADCC = Antibody-dependent cellular cytotoxicity

= first-in-class
# 1 ATTENUKINE™ PLATFORM ELICITS BOTH DIRECT TUMOR KILL AND IMMUNE ACTIVATION

**Targeted Attenuated Type I IFN Payload**

- **TAK-573**
  - Binds CD38
  - Human IgG4 Fc
  - Attenuated IFNα2b

**Next-Gen Attenukine™**
- Binds innate immune target
- Attenuated IFNα2b

**TAK-573 POM in Ongoing Phase 1 R/R MM Study**

- Activation of CD8+ T cells in bone marrow
  - Baseline: 7.3%
  - Cycle 1 Day 16: 18.4%
  - Cycle 2 Day 2: 28.8%

**Expected Milestones (FY)**

- Ph1 FPI in solid tumors
- Ph1b MM (incl. combinations)

---

# 2 NOVEL SCAFFOLD NEXT-GENERATION CHECKPOINT MODULATORS

**High Unmet Need**

Current checkpoint modulators fail to improve overall survival in majority of patients

**Our Differentiated Approach**

New classes of checkpoint inhibitors designed to increase breadth and depth of responses

<table>
<thead>
<tr>
<th>Platform</th>
<th>Partner</th>
<th>Mechanism-Of-Action</th>
<th>Programs</th>
<th>Pre-Clinical</th>
<th>PH 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humabody Vh</td>
<td>Crescendo Biologics</td>
<td>• Unique pharmacology</td>
<td>Concept 1</td>
<td>Concept 2</td>
<td></td>
</tr>
<tr>
<td>Agonist redirected checkpoints</td>
<td>Shattuck</td>
<td>• Co-inhibition &amp; co-stimulation</td>
<td>TAK-252 / SL-279352 (PD1-Fc-OX40L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TAK-254 / SL-115154 (CSF1R-Fc-CD40L)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Vh = Variable heavy domain

= first-in-class
BRINGING 5 NOVEL CELL THERAPY PLATFORMS TO THE CLINIC BY THE END OF FY20

Current CAR-T therapies have significant challenges & fail to address solid tumors

Leverage novel cell platforms & engineering to address shortcomings in liquid & solid tumors

**INNATE IMMUNE PLATFORMS**
- Multiple mechanisms of tumor killing
- ‘Off-the-shelf’
- Utility in solid tumors

**NK & \(\gamma\delta T\) cells**

Innate tumor sensors & effectors

Engineered CAR

Fc-mediated killing

A NETWORK OF TOP INNOVATORS IS FUELING TAKEDA’S CELL THERAPY ENGINE

CUTTING-EDGE ENGINEERING & CELL PLATFORMS

Dec 2015

2016

2017

2018

July 2018

2019

Nov 2019

First Development-Stage Partnership

Takeda Cell Therapy Translational Engine

Shinya Yamanaka

Adrian Hayday

Koji Tamada

Michel Sadelain

Shin Kaneko

Katy Rezvani

**IPSC** = Induced pluripotent stem cell

NK = Natural killer

Dr. Sadelain is a co-inventor on patents relative to next-gen CARs, intellectual property that MSK has licensed to Takeda. As a result of these licensing arrangements, Dr. Sadelain and MSK have financial interests related to these research efforts.
TAKEDA IS EMBARKING ON A TRANSFORMATIVE CAR-NK PARTNERSHIP THAT COULD ENTER PIVOTAL TRIALS IN 2021

**NK CAR Platform**

- Multiple mechanisms of tumor killing
- Potentiation of innate & adaptive immunity

---

**FOUR NOVEL, OFF-THE-SHELF CAR-NK THERAPIES IN DEVELOPMENT**

**PATIENT VALUE PROPOSITION**

- Rapid and deep responses with a short-time-to-treatment, safe, off-the-shelf CAR-NK available in outpatient & community settings

<table>
<thead>
<tr>
<th>Initial opportunity in G7 countries (CD19)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3L+ DLBCL</td>
</tr>
<tr>
<td>3L+ CLL</td>
</tr>
<tr>
<td>3L+ iNHL</td>
</tr>
</tbody>
</table>

- Potential to move into earlier lines of therapy

---

**PLATFORM VALUE INFLECTIONS**

- **Ongoing maturation of clinical data:** Efficacious dose, durability, partial vs. full allo, cryopreserved product
- **Manufacturing process complete**
- **Pivotal trials in r/r DLBCL / CLL / Indolent NHL**
- **BLA filing**

**PLATFORM** | **PARTNER** | **MECHANISM-OF-ACTION** | **PROGRAMS** | **PRECLINICAL** | **PH 1**
--- | --- | --- | --- | --- | ---
CAR-NK (allo cord blood) | MD Anderson Cancer Center Dr. Katy Rezvani | - Non-autologous NK cell therapy | TAK-007 (CD19 CAR-NK) | | 
| | | | BCMA CAR-NK | | 
| | | | Platform expansion | | 

CLL = Chronic lymphocytic leukemia  
DLBCL = Diffuse large B-cell lymphoma  
iNHL = Indolent non-Hodgkin’s lymphoma

*Estimated number of patients projected to be initially eligible for treatment in G7 markets, subject to regulatory approval.
3 DRAMATIC COMPLETE RESPONSE IN FIRST PATIENT TREATED

47-YEAR OLD MALE WITH RELAPSED TRANSFORMED DOUBLE-HIT (C-MYC / BCL-2) DLBCL

Baseline scan  Day 30 post CAR19-NK

Data from Dr. Katy Rezvani, MD Anderson Cancer Center

3 KINETICS OF CAR-NK VERSUS ENDOGENOUS T AND B CELLS IN PERIPHERAL BLOOD

Days post-CAR-NK infusion

3 IMPRESSIVE RESPONSES IN OTHER HEAVILY PRETREATED PATIENTS

61-YEAR OLD MALE CLL/RICHTER’S TRANSFORMATION (5 PRIOR LINES OF THERAPY)

Baseline scan  Day 30 post CAR19-NK

CR in Richter’s; SD in CLL

60-YEAR OLD FEMALE WITH CLL / ACCELERATED CLL (5 PRIOR LINES OF THERAPY)

Baseline scan  Day 30 post CAR19-NK

CLL = Chronic lymphocytic leukemia  CR = Complete response  SD = Stable disease
Data from Dr. Katy Rezvani, MD Anderson Cancer Center
**CAR-NK CELLS PERSIST IN PATIENTS AND DO NOT TRIGGER CYTOKINE RELEASE SYNDROME (CRS)**

CAR-NK CELLS PERSIST UP TO 4 MONTHS POST INFUSION

IL-6 LEVELS POST CAR-NK INFUSION DO NOT INDICATE CRS

---

**Median IL-6 level in grade 2-5 CRS post-CAR-T treatment***

<table>
<thead>
<tr>
<th>Time from infusion (days)</th>
<th>IL-6 (pg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>200</td>
</tr>
<tr>
<td>3</td>
<td>400</td>
</tr>
<tr>
<td>4</td>
<td>600</td>
</tr>
<tr>
<td>5</td>
<td>700</td>
</tr>
<tr>
<td>6</td>
<td>800</td>
</tr>
<tr>
<td>7</td>
<td>900</td>
</tr>
<tr>
<td>8</td>
<td>1000</td>
</tr>
<tr>
<td>9</td>
<td>1100</td>
</tr>
<tr>
<td>10</td>
<td>1200</td>
</tr>
<tr>
<td>11</td>
<td>1300</td>
</tr>
<tr>
<td>12</td>
<td>1400</td>
</tr>
</tbody>
</table>

---

**CAR-NK EFFICACY & TOXICITY TREATING MULTIPLE DIAGNOSES**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Lines of Treatment</th>
<th>HLA Match</th>
<th>CRS / Neurotox</th>
<th>Complete Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose Level 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLBCL - Relapsed transformed</td>
<td>3</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>double-hit</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLBCL - Refractory</td>
<td>7</td>
<td>Partial</td>
<td>None</td>
<td>PD</td>
</tr>
<tr>
<td>CLL</td>
<td>4</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>Incl. ibrutinib &amp; venetoclax</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dose Level 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLL</td>
<td>4</td>
<td>Partial</td>
<td>None</td>
<td>PD</td>
</tr>
<tr>
<td>Incl. ibrutinib</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLL/Richter’s transformation</td>
<td>5</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>Incl. ibrutinib</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLL/Accelerated CLL</td>
<td>5</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>Incl. ibrutinib &amp; venetoclax</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLL</td>
<td>4</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>Incl. ibrutinib</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dose Level 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLBCL - Refractory</td>
<td>11</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>Incl. ASCT</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLBCL - Relapsed transformed</td>
<td>4</td>
<td>Partial</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>double-hit</td>
<td></td>
<td>match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follicular lymphoma - Relapsed</td>
<td>4</td>
<td>Mismatch</td>
<td>None</td>
<td>PD</td>
</tr>
<tr>
<td>Incl. ASCT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follicular lymphoma - Relapsed</td>
<td>4</td>
<td>Mismatch</td>
<td>None</td>
<td>✓</td>
</tr>
<tr>
<td>Incl. ASCT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*CRS = Cytokine Release Syndrome
*CRS = Cytokine release syndrome
*DLBCL = Diffuse large B-cell lymphoma
*ASCT = Autologous stem cell transplant
*HLA = Human leukocyte antigen
*PD = Progressive disease
*Complete response for Richter’s

---

Data from Dr. Katy Rezvani, MD Anderson Cancer Center
FAST-TO-CLINIC CELL THERAPY ENGINE WILL MAXIMIZE LEARNINGS ON MULTIPLE ‘DISRUPTIVE’ PLATFORMS

5 CLINICAL-STAGE PROGRAMS EXPECTED BY END OF FY20

<table>
<thead>
<tr>
<th>Future Year</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY19</td>
<td>TAK-007</td>
</tr>
<tr>
<td></td>
<td>MD Anderson Cancer</td>
</tr>
<tr>
<td></td>
<td>Off-the-shelf CAR-NK product</td>
</tr>
<tr>
<td>FY20</td>
<td>TAK-102</td>
</tr>
<tr>
<td></td>
<td>Cytokine + chemokine armed CAR-T</td>
</tr>
<tr>
<td></td>
<td>CD19 1XX-CAR-T</td>
</tr>
<tr>
<td></td>
<td>Memorial Sloan Kettering Cancer Center</td>
</tr>
<tr>
<td></td>
<td>Next-gen CART signaling domain</td>
</tr>
<tr>
<td>FY21+</td>
<td>Other cell therapy candidates</td>
</tr>
</tbody>
</table>

A RICH AND POTENTIALLY TRANSFORMATIVE EARLY CLINICAL ONCOLOGY PIPELINE

<table>
<thead>
<tr>
<th>Platform</th>
<th>Partner(s)</th>
<th>Mechanism-of-action</th>
<th>Programs</th>
<th>Preclinical</th>
<th>PH1</th>
</tr>
</thead>
<tbody>
<tr>
<td>STING agonism</td>
<td>CURADEV</td>
<td>Innate-to-adaptive priming</td>
<td>TAK-676 (STING agonist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Targeted STING agonist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUMOylation</td>
<td>SHATTUCK</td>
<td>Innate immune enhancer</td>
<td>TAK-981</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TAK-981 (ADCC combo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attenukine™</td>
<td>TEVA</td>
<td>Targeted attenuated IFN-α</td>
<td>TAK-573 (CD38-Attenukine™)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agonist-directed checkpoints</td>
<td>BHATTIC</td>
<td>Co-inhibition &amp; co-stimulation</td>
<td>TAK-252 / SL-279353</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TAK-254 / SL-115154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shiga-like toxin A</td>
<td>AVANT</td>
<td>Novel cytotoxic payload</td>
<td>TAK-169 (CD38-SLTA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IGN toxin</td>
<td>IMMUNOGEN</td>
<td>Solid tumor-targeted ADC</td>
<td>TAK-164 (GCC-ADC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conditional T cell engagers</td>
<td>MAVERICK</td>
<td>Novel solid tumor platform</td>
<td>MVC-101 (EGFR COBRA™)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell therapy platforms</td>
<td>GAMMADelta</td>
<td>Off-the-shelf cell therapies</td>
<td>TAK-007 (CD19 CAR-NK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gamma-delta T cells</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MD Anderson Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GAMMADelta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GAMMADelta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GAMMADelta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

UNDISCLOSED TARGETS

= first-in-class
NME MILESTONES ACHIEVED IN FY19 AND LOOKING AHEAD TO OTHER POTENTIAL MILESTONES1 THROUGH FY20

PIVOTAL STUDY STARTS, APPROVALS

**1H FY 2019**
- TAK-925: Neurology POC
- TAK-721: GI POC
- TAK-316: GI Disease POC

**2H FY 2019**
- TAK-924: Oncology POC
- TAK-925: Oncology POC
- TAK-939: Neurology POC

**1H FY 2020**
- TAK-755: GI POC
- TAK-721: Neurology POC

**2H FY 2020**
- TAK-788: GI SCC
- TAK-721: Neurology POC

KEY DATA READOUTS

1. Potential key milestone dates as of November 14, 2019. The dates included herein are estimates based on current data and are subject to change.
2. Potentially registration enabling.

1. Potential key milestones that have been achieved.

Oncology
- Rare Disease
- Neuroscience
- Gastroenterology

**SUMMARY**

1. Total transformation of preclinical & early clinical pipeline
2. Differentiated opportunities in IO leveraging innate immunity & cell therapies
3. Multiple near-term catalysts informing momentum towards solid tumors
# R&D DAY AGENDA – TOKYO, NOVEMBER 21, 2019

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 11:00 – 11:05 | Welcome and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance                                                                 |
| 11:05 – 11:45 | Realizing the Potential of Plasma-derived Therapies  
Julie Kim, President, Plasma-Derived Therapies Business Unit                                                      |
| 11:45 – 12:15 | A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies  
Christopher Morabito, M.D., Head of R&D, Plasma-Derived Therapies                                         |
| 12:15 – 12:45 | Q&A session                                                                                                                                     |
| 12:45 – 13:25 | Lunch Break                                                                                                                                 |
| 13:25 – 13:35 | Welcome back and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance                                                                 |
| 13:35 – 13:45 | Takeda: A Global Values-Based, R&D-Driven Biopharmaceutical Leader  
Christophe Weber, President & CEO Takeda                                                                        |
| 13:45 – 14:15 | Translating Science into Highly Innovative, Life-changing Medicines  
Andy Plump, President R&D                                                                                      |
| 14:15 – 14:40 | Oncology and Cell Therapies with Spotlight on CAR-NK  
Chris Arendt, Head Oncology Drug Discovery Unit                                                                 |
| 14:40 – 15:00 | Spotlight on Oncology Opportunities  
• TAK-788: Rachel Brake, Global Program Lead  
• Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit                                                  |
| 15:00 – 15:20 | Break                                                                                                                                 |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy  
Dan Curran, Head Rare Disease Therapeutic Area Unit                                                                  |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists  
Deborah Hartman, Global Program Lead                                                                                |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease  
Asit Parikh, Head GI Therapeutic Area Unit                                                                        |
| 16:20 – 17:00 | Panel Q&A Session                                                                                                                                |
| 17:00 | Drinks reception                                                                                                                                    |

---

**TAK-788: Pursuing a Fast-to-Patient Strategy for NSCLC Patients with EGFR Exon 20 Insertions**

**Rachael L Brake, PhD**  
Global Program Leader, Oncology  
Takeda Pharmaceutical Company Limited  
Tokyo  
November 21, 2019
1. American Cancer Society; Cancer facts and figures 2019
2. Office for National Statistics UK (www.ons.gov.uk)

**THE SIZE OF THE LUNG CANCER CHALLENGE IS VAST**

228,000\(^1\)  
New Lung cancer cases / year

143,000\(^1\)  
Lung cancer deaths/ yr  
More than breast, colon, and prostate cancer combined

Survival of Lung cancer is amongst the lowest of all cancers

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% survival</td>
<td>13% survival</td>
</tr>
</tbody>
</table>

5 yr survival estimates among adults diagnosed with lung cancer between 2007-2011\(^2\)

**EXON 20 INSERTIONS ARE A RARE SUBSET OF EGFR MUTANT NSCLC**

<table>
<thead>
<tr>
<th>Non-Sq NSCLC 200,000 pts/yr(^1)</th>
<th>EGFR Exon 20 insertions 2,000 pts/yr(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGFR Sensitizing Mutations 19.4%</td>
<td>Insertion variants</td>
</tr>
<tr>
<td>EGFR exon18 4%</td>
<td>1. V769_D770insASV (=20%)</td>
</tr>
<tr>
<td>EGFR exon19 45%</td>
<td>2. D770_N771insSVD (=19%)</td>
</tr>
<tr>
<td>EGFR exon21 41%</td>
<td>3. H773_V774insH (=8%)</td>
</tr>
<tr>
<td>EGFR T790M 5.5%</td>
<td>4. A763_Y764insFQEA (=7%)</td>
</tr>
<tr>
<td>ALK fusion 3.8%</td>
<td>5. H773_V774insPH (=5%)</td>
</tr>
<tr>
<td>ROS1 fusion 2.6%</td>
<td>6. H773_V774insNPH (=4%)</td>
</tr>
<tr>
<td>RET fusion 1.7%</td>
<td>7. N771_P772insN (=3%)</td>
</tr>
<tr>
<td>BRAF V600E 2.1%</td>
<td>8. H773_V774insAH (=3%)</td>
</tr>
<tr>
<td>MET splice 3.0%</td>
<td>9. Other (=31%)</td>
</tr>
</tbody>
</table>


1. Estimated US annual incidence of non-squamous NSCLC
2. Represents annual incidence of the US addressable patient population
PATIENTS WITH EGFR EXON 20 INSERTIONS HAVE NO EFFECTIVE THERAPY

EGFR exon 20 insertions do not demonstrate significant PFS benefit with 1st and 2nd gen EGFR TKIs

1. Robichaux et al., WCLC 2016.
2. Adapted from Negrao et al., WCLC 2019

![Graph showing progression-free survival (%)](image)

Hazard ratio = 12.3 (p<0.0001)

<table>
<thead>
<tr>
<th>Group</th>
<th>Median PFS (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGFR exon 20 ins</td>
<td>2.0</td>
</tr>
<tr>
<td>Classical EGFR mut</td>
<td>12.0</td>
</tr>
</tbody>
</table>

EGFR exon 20 ins patients demonstrate limited benefit to anti PD-1 directed therapy

![Graph showing best change in target lesions (%)](image)

<table>
<thead>
<tr>
<th>Group</th>
<th>Median PFS (months)</th>
<th>PDL-1 expression ≥1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGFR exon 20 ins</td>
<td>2.7 (1.7-3.8)</td>
<td>40%</td>
</tr>
<tr>
<td>Classical EGFR mut</td>
<td>1.8 (1.2-2.4)</td>
<td>25%</td>
</tr>
</tbody>
</table>

OVERCOMING THE DRUG DEVELOPMENT CHALLENGE IN EXON 20 INSERTIONS

EGFR exon 20 NPG insertion have a similar structure and similar affinity for ATP to wild type EGFR

L858R EGFR mutation significantly alter both structure and affinity for ATP compared to wild type EGFR

Source. TAK-788 bound to EGFR kinase domain containing D770 ins NPG, crystal structure (data on file)
**TAK-788 PROOF OF CONCEPT DATA IN EGFR EXON 20 INSERTIONS**

- Confirmed ORR: 12/28 patients: 43% (24.5-62.8%)
- Median PFS: 7.3 months (4.4 mo - NR)

**ANTITUMOR ACTIVITY IN EGFR EXON 20 INS AT 160 MG DAILY**

![Graph showing antitumor activity in EGFR exon 20 ins at 160 mg daily]

**SAFETY SUMMARY IN PATIENTS TREATED WITH TAK-788**

<table>
<thead>
<tr>
<th>N (%)</th>
<th>Treatment-related AE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any grade</td>
</tr>
<tr>
<td></td>
<td>Grade ≥3</td>
</tr>
<tr>
<td></td>
<td>Dose reduction due to AE</td>
</tr>
<tr>
<td></td>
<td>Dose interruption due to AE</td>
</tr>
<tr>
<td></td>
<td>Discontinuation due to treatment-related AE</td>
</tr>
</tbody>
</table>

Direct cross-trial comparison cannot be made between TAK-788 and other treatments due to different studies with different designs.

**ENCOURAGING EFFICACY AND SAFETY HAS BEEN OBSERVED WITH TAK-788**

**Select signs of efficacy**

<table>
<thead>
<tr>
<th>Clinical feature</th>
<th>TAK-788 1 n=28</th>
<th>Pozotinib 2 n=50</th>
<th>Afatinib 3 n=23</th>
<th>Osimertinib 4 n=15</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITT confirmed ORR (%)</td>
<td>43%</td>
<td>NR</td>
<td>8.7%</td>
<td>0%</td>
</tr>
<tr>
<td>Evaluable confirmed ORR (%)</td>
<td>NR</td>
<td>43%</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>ITT median PFS (months)</td>
<td>7.3</td>
<td>5.5</td>
<td>2.7</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Select treatment related adverse events attributable to wild type EGFR inhibition**

<table>
<thead>
<tr>
<th>Grade ≥ 3 Adverse event</th>
<th>TAK-788 1 n=72</th>
<th>Pozotinib 2 n=63</th>
<th>Afatinib 3 n=229</th>
<th>Osimertinib 4 n=279</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhea ≥ Gr3</td>
<td>1.8%</td>
<td>17.5%</td>
<td>14%</td>
<td>1%</td>
</tr>
<tr>
<td>Rash ≥ Gr3</td>
<td>1%</td>
<td>35%</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td>Paronychia ≥ Gr3</td>
<td>0%</td>
<td>9.5%</td>
<td>11%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**AE related dose reductions (%)**

| AE related dose reductions (%)   | 25%            | 60%             | 52%             | 2.9%               |

STRONGER DIARRHEA MANAGEMENT SHOULD = ENHANCED EFFICACY

<table>
<thead>
<tr>
<th>Diarrhea</th>
<th>Time on Treatment (Mo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
<td>4.6</td>
</tr>
<tr>
<td>Grade 2</td>
<td>9.8</td>
</tr>
<tr>
<td>Grade 1</td>
<td>12.7</td>
</tr>
<tr>
<td>No diarrhea</td>
<td>12.1</td>
</tr>
</tbody>
</table>

June 2016
FIRST IN HUMAN
Diarrhea management very late - medicate when at Grade 2

Feb 2019 new trial
Comprehensive diarrhea management guidelines implemented earlier

WE HAVE MODIFIED OUR APPROACH TO GI ADVERSE EVENT MANAGEMENT WITH THE AIM TO IMPROVE EFFICACY

Source. TAK-788 Clinical trial database (data on file)

2021: EXPECTED FIRST APPROVAL IN EGFR EXON 20 INSERTIONS

- Single arm Phase 2 trial
- Refractory EGFR Exon 20 insertion patients

- Previously treated, ≤2 systemic anticancer chemotherapy
- Locally advanced or metastatic
- NSCLC harboring EGFR exon 20 insertion

TAK-788 at 160 mg qd

1. Overall Response Rate
2. Duration of Response
3. Median Progression Free Survival
4. Overall survival


- Supporting data generation
- Real world evidence (RWE) data collection

RWE will be used to assess the benefit of conventional standard of care (SOC) agents in patients with EGFR Exon 20 insertions

EMR claims databases and Medical Chart Review

Chemo +/- VEGFR

1. Overall Response Rate
2. Time to treatment failure
3. Median progression free survival
4. Duration of Response
5. Overall survival

Immunotherapy

- US (FLAT IRON HEALTH)
- JP (SCRUM-JAPAN)

Other

- EU AND CHINA CHART REVIEW
NEW ACTIVATION: A TRIAL FOR NEWLY DIAGNOSED PATIENTS

- Randomized, controlled, Phase 3 trial
- Treatment-naïve EGFR exon 20 insertion patients

- Advanced or metastatic
- Treatment-naïve patients diagnosed with NSCLC harboring EGFR exon 20 insertion mutations

TAK-788 at 160 mg qd
Platinum doublet

R 1:1

1. Median Progression Free Survival
2. Overall Response Rate
3. Duration of Response
4. Overall survival

Electronic patient reported outcomes

ACTIVELY ENROLLING
- US, EU, LATIN AMERICA AND ASIA-PACIFIC

2 year enrollment
Anticipated approval 2023

SUMMARY

1. NSCLC patients with EGFR Exon 20 insertions are underserved with the current available therapies

2. TAK-788 is the first purposely designed inhibitor and clinical proof-of-concept has demonstrated efficacy

3. The EXCLAIM trial in refractory patients could lead to the first approval of TAK-788 by 2021

Source: https://clinicaltrials.gov/ct2/show/NCT04129502
PEVONEDISTAT (TAK-924): A POTENTIAL NEW TREATMENT FOR HR-MDS AND AML

Phil Rowlands, PhD
Head Oncology Therapeutic Area Unit
Takeda Pharmaceutical Company Limited
Tokyo
November 21, 2019

BUILDING ON THE TAKEDA ONCOLOGY FOUNDATION IN HEMATOLOGIC MALIGNANCIES

- Lymphoma
- Chronic Myeloid Leukemia
- MDS/AML
- Pevonedistat
- Next Generation I/O
- Cell therapies
  - Type I IFN
  - Novel checkpoints

Improving Patient Outcomes in Multiple Myeloma
HIGH RISK MYELODYSPLASTIC SYNDROME (HR-MDS) AND ACUTE MYELOID LEUKEMIA (AML) HAVE LIMITED TREATMENT OPTIONS

CONTINUUM OF HR-MDS AND AML

- HR-MDS and AML are both rare bone marrow-related cancers that share foundational biology, clinical features, and genetic mutations*
- Incidence highest in elderly (>70 years old)
- Overall survival several months to a few years, depending on risk category

* 30% of HR-MDS patients progress to AML

CLINICAL TREATMENT

BM failure → cytopenias
- Fatigue (anemia)
- Infection (neutropenia)
- Bleeding (thrombocytopenia)

Clinical treatment goals:
- Alleviate cytopenias
- Improve patient quality of life
- Improve survival

Fit Patients
- Younger
- Fewer co-morbidities
- Better performance status

Unfit Patients
- Older
- Unfit for intensive chemotherapy and/or stem cell transplant

Clinical treatment:
- Azacitidine
- Decitabine
- Low dose ara-c
- Targeted therapies (AML only): BCL2, IDH1/2, FLT3

Intensive Chemotherapy

Stem Cell Transplant
- (Only curative treatment)
- ≤ 10% HR-MDS, ~45% AML

CURRENT STANDARD OF CARE IS INADEQUATE FOR HR-MDS PATIENTS

- No new treatments have been approved for MDS in over a decade
- Transplant ineligible patients treated with first line therapy: Median OS = 15mo; 2yr OS rate 35%
- Economic burden is substantial - hospitalizations are common among patients and many are transfusion dependent

MDS SURVIVAL BY PROGNOSTIC RISK

- Median survival ~6 months to 5 years

Schanz et al., J Clin Oncol. 2012; 30:820-829
PEVONEDISTAT: A UNIQUE FIRST-IN-CLASS NAE INHIBITOR

- Pevonedistat is a small molecule inhibitor of NAE (NEDD-8 activating enzyme), a protein involved in the ubiquitin-proteasome system.
- NAE acts upstream of the proteasome and catalyzes the first step in the neddylation pathway.

ENCOURAGING RESPONSES IN AML PATIENTS TREATED WITH PEVONEDISTAT + AZACITIDINE

60% ORR with a trend towards improved survival in secondary AML.

Response rates not influenced by AML genetic risk or leukemia burden.

Initial data drove interest to move to registration.
**A Phase 2 Study in HR-MDS to Confirm the Risk / Benefit Profile Observed in AML**

Phase 2, Randomized, Open-label, Global, Multicenter Study
Comparing Pevonedistat Plus Azacitidine vs. Azacitidine in Patients with Higher-Risk MDS, CMML, or Low-Blast AML

- Mature OS data will be available in November
- Data will be presented in upcoming congress
- Potential approval in FY21*

**The Phase 3 Panther Study Was Initiated at Risk to Accelerate Development**

Phase 3, Randomized controlled trial of Pevonedistat Plus Azacitidine Versus Single-Agent Azacitidine as First-Line Treatment for Patients with Higher-risk MDS/CMML, or Low-blast AML

- Completed global enrollment 10 months earlier than originally projected*
- Indicative of demand for new innovative therapies

* Projected approval date assumes filing on Phase 2 data
* Closed to global enrollment; Open for extended enrollment in China
**SUMMARY**

1. Unmet need in High-risk MDS and AML remain high with few treatment options

2. Pevonedistat is a selective first-in-class inhibitor with potential to be first new therapy in over a decade for HR-MDS

3. The Ph2 HR-MDS trial has reached the updated OS endpoint data readout and the PANTHER Ph3 trial has completed global enrollment

* Projected approval date assumes filing on Phase 2 data
<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 11:00 – 11:05 | Welcome and Introduction of Presenters  
|           | Ayako Iwamura, Investor Relations, Global Finance                      |
| 11:05 – 11:45 | Realizing the Potential of Plasma-derived Therapies  
|           | Julie Kim, President, Plasma-Derived Therapies Business Unit          |
| 11:45 – 12:15 | A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies  
|           | Christopher Morabito, M.D., Head of R&D, Plasma-Derived Therapies       |
| 12:15 – 12:45 | Q&A session                                                            |
| 12:45 – 13:25 | Lunch Break                                                            |
| 13:25 – 13:35 | Welcome back and introduction of Presenters  
|           | Ayako Iwamura, Investor Relations, Global Finance                      |
| 13:35 – 13:45 | Takeda: A Global Values-Based, R&D-Driven Biopharmaceutical Leader  
|           | Christophe Weber, President & CEO Takeda                               |
| 13:45 – 14:15 | Translating Science into Highly Innovative, Life-changing Medicines  
|           | Andy Plump, President R&D                                              |
| 14:15 – 14:40 | Oncology and Cell Therapies with Spotlight on CAR-NK  
|           | Chris Arendt, Head Oncology Drug Discovery Unit                        |
| 14:40 – 15:00 | Spotlight on Oncology Opportunities  
|           | • TAK-788: Rachel Brake, Global Program Lead  
|           | • Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit     |
| 15:00 – 15:20 | Break                                                                  |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy  
|           | Dan Curran, Head Rare Disease Therapeutic Area Unit                    |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists  
|           | Deborah Hartman, Global Program Lead                                  |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease  
|           | Asit Parikh, Head GI Therapeutic Area Unit                            |
| 16:20 – 17:00 | Panel Q&A Session                                                      |
| 17:00     | Drinks reception                                                       |
RARE DISEASES: AN OPPORTUNITY TO TRANSFORM TREATMENT

HIGH UNMET NEED

7,000 Distinct rare diseases¹

350 million Patients worldwide

95% Diseases have no FDA-approved treatment

SCIENTIFIC AND REGULATORY ADVANCES

80% Diseases are genetic in origin

Transformative therapies

Recombinant engineering & delivery of proteins and nucleic acids

~90%² Orphan drug approvals benefited from expedited review

Diseases are genetic in origin

Orphan drug approvals benefited from expedited review

1. Rare diseases defined by prevalence in line with regulatory agencies (US: <7 in 10,000, EU: < 5 in 10,000 and JPN: <4 in 10,000), Global Genes, NIH/National Human Genome Research Institute; 2. Comprises four pathways in US: Accelerated approval, breakthrough therapy designation, fast track designation, priority review designation; 3. Three pathways in JPN: Priority review, Sakigake designation and conditional approval, CHS R&D Briefing 70, New drug approvals in six major authorities 2009-2018

RARE DISEASE MARKET IS EXPECTED TO DOUBLE IN SIZE

GLOBAL ORPHAN DRUG¹ SALES EXCLUDING ONCOLOGY², USD BN

7% 11% 17%

37 62 124

2012 2018 2024

12% CAGR

• Orphan drugs expected to make up ~17% of global branded Rx sales by 2024

• Growth driven by advances in new modalities and new indications

• Orphan cell and gene therapies estimated at ~$20 bn by 2024, up from ~$2bn in 2018

1. Orphan drugs generally used as synonym for rare disease due to lack of uniform definition, including also non-rare, but neglected diseases lacking therapy (e.g., tropical infectious diseases); 2. EvaluatePharma (03 June 2019)
TAKEDA IS THE LEADER IN RARE DISEASES

PATIENT IMPACT

• Foundation of >30 year history of leadership in rare diseases
• Leading portfolio of rare disease therapies: 11 out of 14 global brands spanning Hematology, Metabolic, GI and Immunology

SCIENCE & INNOVATION

• Multiple opportunities for transformational therapies across therapeutic areas
• Emerging, cutting edge platforms to drive high-impact pipeline
• Investments in technologies to accelerate diagnosis

CAPABILITIES AND SCALE

• Engagement with key stakeholders within the ecosystem e.g. patient groups, regulators
• Pioneering regulatory pathways
• Global footprint

OUR STRATEGY IS TO TRANSFORM AND CURE RARE DISEASES

As the global leader in Rare Diseases, we aspire to provide transformative and curative treatments to our patients

Transformative

Programs with transformative potential in devastating disorders with limited or no treatment options today

Curative

Emerging early pipeline of AAV gene therapies to redefine treatment paradigm in monogenic rare diseases
### SELECTED TRANSFORMATIVE PROGRAMS

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-620</td>
<td>Potential first treatment of CMV infection in transplant patients in over 10 years. Inhibitor of protein kinase UL97.</td>
</tr>
<tr>
<td>TAK-607</td>
<td>Potential first pharmacologic therapy in &gt;20 years to prevent complications of prematurity. Recombinant IGF-1 growth factor.</td>
</tr>
</tbody>
</table>

### TAK-620: POTENTIAL BEST IN CLASS TREATMENT FOR POST-TRANSPLANT CMV INFECTION

#### BURDEN OF CMV INFECTION IN TRANSPLANT RECIPIENTS

- CMV infection is the most common post-transplant viral infection<sup>1</sup>
- Affects >25% of transplants
- CMV infection can be fatal<sup>2,3</sup>
- Higher rates of graft failure: 2.3X and mortality: 2.6X

#### TAK-620: NOVEL MOA TARGETING PROTEIN KINASE UL97

1. Replication
2. Maturation and encapsidation
3. Egress of viral capsids

---

TAK-620 ADDRESSES UNMET NEED IN BOTH FIRST-LINE AND RESISTANT / REFRACTORY SETTING

Transplant treatment

CMV Viremia

First-Line: Newly diagnosed CMV

Failure

Resistant / Refractory (R/R) CMV

Solid organ transplant (SOT) patients

~100K

~30K

TAK-620: Ph 3 Study 303

Hematopoietic Stem Cell Transplants (HSCT) patients:

~90K

~15K

TAK-620: Ph 3 Study 302

TAK-620: Dose 400, 800 or 1200 mg BID

All Doses (N=119)

Confirmed undetectable plasma CMV DNA within 6 weeks

79%

67%

CMV

NON-CMV

10K

5K

CMV

NON-CMV

10K

5K

1. Solid organ and allogeneic HSCT transplants in global major markets: US, Europe, Canada, Japan, China, Australia and Korea
2. UNOS Data 2018; CIBMTRMOD Registry 2017; EBMT activity survey 2019, Shire CMV Epi Study, Feb. 2018

TAK-620 DEMONSTRATED SIMILAR EFFICACY AND BETTER SAFETY VERSUS SOC IN A PHASE 2 STUDY IN FIRST-LINE PATIENTS

NEUTROPENIA WAS TREATED WITH GROWTH FACTORS MORE OFTEN IN THE VGV ARM (15%) VS. TAK-620 ARM (7%)^2

1. Confirmed undetectable CMV DNA in plasma was defined as two consecutive CMV DNA polymerase-chain-reaction assay values measured during treatment that were below the level of quantitation (i.e., <200 copies per millimeter according to the central laboratory) separated by at least 5 days. For the primary analyses of confirmed undetectable CMV DNA within 3 weeks and 6 weeks, data were missing for 3 patients: 1 each in the 400-mg TAK-620 group, the 1200-mg TAK-620 group and the valganciclovir group.
2. N Engl J Med 2019; 381:1136-47. Overall risk ratio (95% CI) relative to the Valganciclovir reference was 1.20 (0.95-1.51)
**TAK-620: GRANTED BREAKTHROUGH DESIGNATION IN RESISTANT OR REFRACTORY CMV INFECTION**

1. **Efficacy in seriously ill R/R CMV in SOT and HSCT recipients with multiple risk factors predictive of poor outcomes**

   **TAK-620 Dose: 400 mg, 800 mg, 1200 mg BID**

<table>
<thead>
<tr>
<th>Primary efficacy endpoint</th>
<th>All doses (Total N = 120)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with confirmed undetectable plasma CMV DNA within 6 weeks in ITT² population</td>
<td>80 (66.7%)</td>
</tr>
</tbody>
</table>

2. **Superior renal safety profile - did not result in treatment discontinuations**

   Historical outcomes: High (~50%) failure rates / relapse rates³,⁴,⁵

   Renal impairment is the primary reason for discontinuation with SOC (Foscarnet, Cidovir); nephrotoxicity is > 50%⁶

---

**TAK-620: TWO ONGOING PIVOTAL STUDIES; EXPECT FIRST APPROVAL IN RESISTANT OR REFRACTORY CMV IN 2021**

**TAK-620 PHASE 3 STUDY 303**

- **Resistant/Refractory CMV Patients with SOT or HSCT**
- **2:1 Randomization**
  - TAK-620 400mg BID (N=234)
  - Investigator’s choice (N=117)

- **Primary Endpoint: Viremia @ 8 wks of Rx**

**EXPECTED MILESTONES (FY)**

<table>
<thead>
<tr>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>2H 2020: Ph 3 Readout</td>
<td>2021: US Approval</td>
<td>2022: EU Approval</td>
</tr>
</tbody>
</table>

**TAK-620 PHASE 3 STUDY 302**

- **HSCT Recipients With First CMV Infection**
- **1:1 Randomization**
  - TAK-620 400mg BID (N=275)
  - 900mg BID VGV (N=275)

- **Primary Endpoint: Viremia @ 8 wks of Rx**

**EXPECTED MILESTONES (FY)**

<table>
<thead>
<tr>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1H 2021: Ph 3 Readout</td>
<td>2022: US Approval EU Approval</td>
</tr>
</tbody>
</table>

---

### SELECTED TRANSFORMATIVE PROGRAMS

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-620</td>
<td>Potential first treatment of CMV infection in transplant patients in over 10 years. Inhibitor of protein kinase UL97.</td>
</tr>
<tr>
<td>TAK-607</td>
<td>Potential first pharmacologic therapy in &gt;20 years to prevent complications of prematurity. Recombinant IGF-1 growth factor.</td>
</tr>
</tbody>
</table>

---

### CONGENITAL AND IMMUNE TTP HAVE SUBSTANTIAL MORTALITY AND MORBIDITY BURDEN DUE TO INADEQUATE SOC

#### CONGENITAL TTP (cTTP)
- Sub-therapeutic dose with plasma infusions
- Patients still experience ischemic injury of brain, kidneys and heart
- Poor long-term outcomes

#### IMMUNE TTP (iTTP)
- ~30% relapse rate with plasma exchange (PEX)
- New market entrant reduces relapse rate, but has significant limitations
  - Enhanced risk of bleeding:
    - Gingival bleeding 18% vs. 1% placebo
    - Epistaxis 32% vs. 3% placebo

#### ADDRESSABLE POPULATION (WW)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>cTTP</td>
<td>2,000 – 6,000</td>
</tr>
<tr>
<td>iTTP</td>
<td>5,000 – 18,000</td>
</tr>
</tbody>
</table>

TAK-755 DIRECTLY ADDRESSES UNDERLYING CAUSE OF TTP

TAK-755 REPLACES ADAMTS13, DEFICIENCY OF WHICH LEADS TO TTP

Normal clotting cascade

ADAMTS13: Cleaves VWF multimers that mediate platelet aggregation and clotting

Blood vessel

Platelet Von Willebrand Factor (VWF)

TTP

ADAMTS13 deficiency: Formation of microthrombi due to accumulation of large VWF multimers

TAK-755: POTENTIAL TRANSFORMATIVE THERAPY FOR TTP

TAK-755 PHASE I, OPEN-LABEL, DOSE ESCALATION STUDY IN cTTP

• Administered as a single dose in 15 cTTP patients
• TAK-755 was well tolerated
• No anti-ADAMTS13 antibodies detected

TAK-755 PK PROFILE AND PD EFFECT ON VWF CLEAVAGE AT 40 IU/KG

**TAK-755: ONGOING PHASE 3 CONGENITAL TTP STUDY**

**TAK-755 PHASE 3 PROPHYLAXIS STUDY**

- cTTP patients (N = 26 – 42)
- 1:1 Randomization
- SOC
- TAK-755 40 IU/kg Every other week

**Primary Endpoint:**

- Incidence of acute TTP episodes

**SOC**

- Tx duration: 6 months
- TAK-755 40 IU/kg Every other week
- SOC

**All patients roll over to a 6 month TAK-755 extension**

**Phase 3 study has a cohort of acute cTTP patients who receive TAK755. Patients are eligible to enter the prophylaxis study upon completion of acute treatment**

---

**EXPECTED MILESTONES (FY)**

- 2019: 1H: Ph 3 initiated
- 2021: 2H: Ph 3 Readout
- 2023: US Approval
- 2025: EU Approval

---

1. A single dose modification to 1x/week may be mandated based on clinical outcomes; 2. Plan to seek deferral of pediatric data requirement in EU for initial filing, which would enable possible approval in EU in 2023

---

**TAK-755 IMMUNE TTP PHASE 2 STUDY DESIGN**

- Primary or relapse acute iTTP episode (N=30)
- PEX Day 1
- 1:1:1 Randomization

**Placebo**

- Placebo + SOC

**TAK-755 Low dose**

- TAK-755 Low dose + SOC

**TAK-755 High dose**

- TAK-755 High dose + SOC

**Remission Phase**

- Placebo or TAK-755

**Primary endpoints: PK/PD**

---

**EXPECTED MILESTONES (FY)**

- 2020: 2H: Ph 2 Readout
- 2021: 2H: Ph 3 Start
- 2023: 2H: Ph3 Readout
- 2025: US/EU Approval
SELECTED TRANSFORMATIVE PROGRAMS

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-620</td>
<td>Potential first treatment of CMV infection in transplant patients in over 10 years. Inhibitor of protein kinase UL97.</td>
</tr>
<tr>
<td>TAK-607</td>
<td>Potential first pharmacologic therapy in &gt;20 years to prevent complications of prematurity. Recombinant IGF-1 growth factor.</td>
</tr>
</tbody>
</table>

EXTREMELY PREMATURE INFANTS EXPERIENCE CONSIDERABLE MORBIDITY

TAK-607 REPLENISHES IGF-1, A FETAL GROWTH FACTOR THAT IS DECREASED IN PRETERM INFANTS

TAK-607: IGF-1 / IGFBP-3 Complex

- IGF-1 is an important fetal growth factor supplied by the mother that is involved in the development of multiple organs
- IGF-1 is low or absent in premature infants born before 28 weeks
- TAK-607 demonstrated beneficial effects in lung development and brain vasculature in preclinical models

IGF-1 Levels are Low in Preterm Infants

- IGF-1 levels are low in preterm infants
- Recombinant insulin-like growth factor 1 (rIGF-1), IGFBP-3: IGF binding protein-3
- Seedorf G et al. EAPS. Geneva 2016 (manuscript in preparation)
- Ley D et al. jENS 2019

TAK-607: PHASE 2 STUDY INFORMED DOSE AND ENDPOINT SELECTION

ROP-2008-01: RANDOMIZED, CONTROLLED PHASE 2 STUDY OF TAK-607

- Pre-term infants with a gestational age (GA) <28 weeks (N = 120)
- Assessed outcomes in ITT and “evaluable” sets (40% patients who achieved target exposure of IGF-1 levels)
- Primary endpoint: ROP not met
- Pre-specified secondary endpoints: Bronchopulmonary Dysplasia (BPD) was reduced and Intra-Ventricular Hemorrhage (IVH) showed a positive trend
- Granted FDA fast-track designation

TAK-607 IMPACTED BPD AND IVH

- Standard of care
- IGF-1/IGFBP-3

1. Recombinant insulin-like growth factor 1 (rIGF-1), IGFBP-3: IGF binding protein-3
3. Seedorf G et al. EAPS. Geneva 2016 (manuscript in preparation)
4. Ley D et al. jENS 2019
**TAK-607: FOOTPRINTS STUDY DESIGNED TO DEMONSTRATE REDUCTION IN THE COMPLICATIONS OF PREMATURITY**

Open label, 1:1:1 Randomization (N = 200/arm)

Premature infants: <28 weeks GA

- TAK-607 250 μg/kg/24 h continuous IV
- TAK-607 400 μg/kg/24 h continuous IV
- Standard Neonatal Care

**Treatment (2-7 wks based on GA)**

- Rx: Day 1
- Rx End: 29 wk + 6 d PMA

**Post Treatment Follow-up period**

- Primary endpoint: 12 months corrected age
- Outpatient: Respiratory morbidity assessments/week

**Primary endpoint: Duration of supplemental oxygen use through 1 year corrected age**

**EXPECTED MILESTONES (FY)**

1H: Ph 2b initiated

2H: Ph 2b Readout

---

1. Supplemental oxygen use defined by one of the following: a) Any fraction of inspired oxygen (FiO2) >21%, b) Non-invasive respiratory support delivered via a nasal interface (e.g., continuous positive airway pressure [CPAP], nasal cannula, etc.), c) Invasive respiratory support (mechanical ventilation) via an endotracheal tube or tracheostomy

---

**NME MILESTONES ACHIEVED IN FY19 AND LOOKING AHEAD TO OTHER POTENTIAL MILESTONESTHROUGH FY20**

**PIVOTAL STUDY STARTS, APPROVALS**

**1H FY 2019**

- TAK-995
- TAK-761
- TAK-753

**2H FY 2019**

- TAK-995
- TAK-761
- TAK-753
- Pevonedistat
- TAK-924

**1H FY 2020**

- Pevonedistat
- TAK-924
- TAK-798

**2H FY 2020**

- Pevonedistat
- TAK-924
- TAK-798
- TAK-724

**Oncology**

- Rare Disease
- Neuroscience
- Gastroenterology

| Denotes milestones that have been achieved. |

---

**KEY DATA READOUTS**

1. Potential key milestone dates as of November 14, 2019. The dates included herein are estimates based on current data and are subject to change
2. Potentially registration enabling
WE AIM TO PROVIDE CURATIVE THERAPY

As the global leader in Rare Diseases, we aspire to provide transformative and curative treatments to our patients

Transformative

Programs with transformative potential in devastating disorders with limited or no treatment options today

Curative

Emerging early pipeline of AAV gene therapies to redefine treatment paradigm in monogenic rare diseases

BUILDING A WORLD CLASS GENE THERAPY ‘ENGINE’

TOP TIER GMP MANUFACTURING

GENE THERAPY AAV1 PLATFORM

GENE THERAPY PIPELINE

TAKEDA THERAPEUTIC AREAS

1. Adeno-Associated Virus
**SUMMARY**

1. Takeda has the capabilities, scale, and innovative platforms to extend our leadership in Rare Diseases

2. We have a leading late stage portfolio of transformative programs that will establish or re-define the standard of care for highly underserved patients

3. We are building cutting-edge capabilities in gene therapy that aim to deliver ‘cures’ in monogenic rare diseases
# R&D DAY AGENDA – TOKYO, NOVEMBER 21, 2019

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 11:00 – 11:05 | Welcome and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance                                |
| 11:05 – 11:45 | Realizing the Potential of Plasma-derived Therapies  
Julie Kim, President, Plasma-Derived Therapies Business Unit                     |
| 11:45 – 12:15 | A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies  
Christopher Morabito, M.D., Head of R&D, Plasma-Derived Therapies            |
| 12:15 – 12:45 | Q&A session                                                                              |
| 12:45 – 13:25 | Lunch Break                                                                               |
| 13:25 – 13:35 | Welcome back and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance                                |
| 13:35 – 13:45 | Takeda: A Global Values-Based, R&D-Driven Biopharmaceutical Leader  
Christophe Weber, President & CEO Takeda                                        |
| 13:45 – 14:15 | Translating Science into Highly Innovative, Life-changing Medicines  
Andy Plump, President R&D                                                        |
| 14:15 – 14:40 | Oncology and Cell Therapies with Spotlight on CAR-NK  
Chris Arendt, Head Oncology Drug Discovery Unit                                  |
| 14:40 – 15:00 | Spotlight on Oncology Opportunities  
• TAK-788: Rachel Brake, Global Program Lead  
• Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit         |
| 15:00 – 15:20 | Break                                                                                     |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy  
Dan Curran, Head Rare Disease Therapeutic Area Unit                          |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists  
Deborah Hartman, Global Program Lead                                           |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease  
Asit Parikh, Head GI Therapeutic Area Unit                                      |
| 16:20 – 17:00 | Panel Q&A Session                                                                         |
| 17:00       | Drinks reception                                                                        |

---

**OX2R AGONISTS FOR THE TREATMENT OF NARCOLEPSY TYPE 1**

Deborah Hartman, PhD  
Global Program Leader, Neuroscience  
Takeda Pharmaceutical Company Limited  
Tokyo  
November 21, 2019
NARCOLEPSY TYPE 1 IS A RARE, ACQUIRED CHRONIC NEUROLOGICAL DISORDER

- Psychosocially devastating effects
- Current treatments are only partially effective
- Polypharmacy is common

3M
Estimated global population affected by NT1

~50%
Estimated diagnostic rate for NT1 in US, EU, JP

15Y
Mean diagnostic delay

When I’m awake, sleep is constantly intruding on that part of my life. And when I’m asleep, wakefulness is constantly intruding on that part of my life. It’s frustrating because no matter how well you regulate your narcolepsy, you’re always tired. You’re exhausted.

- Charlie, adviser with NT1

NARCOLEPSY TYPE 1 IS DISTINGUISHED BY THE PRESENCE OF CATAPLEXY AND LOW OREXIN LEVELS

“It’s not just about sleep, it’s about quality of wakefulness... it’s really about partnership with your extended family, your spouse, taking care of your children... it limits my ability to play with my kids.”

- Sara, adviser with NT1

<table>
<thead>
<tr>
<th>Narcolepsy Type 1</th>
<th>Narcolepsy Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of orexin: CSF levels &lt;110 pg/mL</td>
<td>Normal or partially reduced orexin levels</td>
</tr>
<tr>
<td>Excessive daytime sleepiness</td>
<td>Disrupted nighttime sleep</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>Sleep paralysis</td>
</tr>
<tr>
<td>Sleep paralysis</td>
<td>Cataplexy</td>
</tr>
</tbody>
</table>

Narcolepsy Type 2 may convert to Narcolepsy Type 1

Other hypersomnia disorders
- Idiopathic Hypersomnia
- Residual Excessive Daytime Sleepiness in Obstructive Sleep Apnea

CSF: Cerebral spinal fluid; Orexin also referred to as hypocretin
1. Individuals with Obstructive Sleep Apnea who are compliant with use of continuous positive airway pressure at night
NARCOLEPSY TYPE I IS CAUSED BY PROFOUND LOSS OF OREXIN-PRODUCING NEURONS

OREXIN mRNA LABELLING OF POSTMORTEM HYPOTHALAMIC SECTIONS

<table>
<thead>
<tr>
<th>Healthy control</th>
<th>Narcolepsy Type 1</th>
</tr>
</thead>
</table>

ACTIVATION OF OREXIN 2 RECEPTOR (OX2R) LEADS TO AROUSAL AND PROMOTES WAKEFULNESS

- Orexin neuropeptides A and B
- Post-synaptic neurons with orexin 2 receptors
- Downstream signalling promoting wakefulness

THE OREXIN HYPOTHESIS IN NARCOLEPSY TYPE I

An orexin 2 receptor agonist may replace the missing endogenous orexin peptide, addressing the underlying orexin deficiency of Narcolepsy Type 1 and reduce disease specific symptoms

TAK-925, A SELECTIVE OX2R AGONIST, REDUCES NARCOLEPSY-LIKE SYMPTOMS IN AN OREXIN-DEFICIENT MOUSE MODEL

TAK-925 FULLY RESTORED WAKEFULNESS

Wakefulness time of NT1 mouse model in active phase for one hour

TAK-925 ELIMINATED SLEEP / WAKE TRANSITIONS

Hypnogram of sleep/wake transitions in NT1 mouse model

TAK-925 ABOLISHED CATAPLEXY-LIKE EPISODES

Cataplexy-like episodes in NT1 mouse model for three hours after chocolate

TAK-925 SHOWED PROMISING ABILITY TO MAINTAIN WAKEFULNESS IN AN EARLY PROOF OF CONCEPT STUDY IN NT1 PATIENTS

**SLEEP LATENCY IN THE MAINTENANCE OF WAKEFULNESS TEST (MWT): CURRENT TREATMENTS**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Placebo-adjusted change from baseline (minutes, 95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitolisant1</td>
<td>NR</td>
</tr>
<tr>
<td>Modafinil2</td>
<td>3.0</td>
</tr>
<tr>
<td>Sodium oxybate3</td>
<td>3.3</td>
</tr>
<tr>
<td>Armodafinil4</td>
<td>3.8</td>
</tr>
<tr>
<td>Solriamfetol5</td>
<td>7.7</td>
</tr>
</tbody>
</table>

**TAK-925 (N=14)**

- Placebo-adjusted observed value (minutes, 95% CI)
  - TAK-925 5 mg (n=6)
  - TAK-925 11.2 mg (n=4)
  - TAK-925 44.8 mg (n=4)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Placebo-adjusted observed value (minutes, 95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAK-925 5 mg</td>
<td>18.8</td>
</tr>
<tr>
<td>TAK-925 11.2 mg</td>
<td>36.1</td>
</tr>
<tr>
<td>TAK-925 44.8 mg</td>
<td>36.7</td>
</tr>
</tbody>
</table>

**P value <0.001**

• TAK-925 was well-tolerated; most AEs were mild and no SAEs were observed
• In this TAK-925-1001 study, four 40 minute MWTs were conducted per period
• Direct cross-study comparison cannot be made between TAK-925 and treatments due to different studies with different designs

NR: 95% CI not reported

2. FDA statistical Review: Page 5, 200 mg
3. Label/Trial N4
4. Clinicaltrials.gov (NCT00078377)
5. FDA Statistical Review, Study 14-002, 150 mg

---

**TAK-925 ALSO REDUCED SUBJECTIVE SLEEPINESS IN THIS EARLY PROOF OF CONCEPT STUDY IN NT1**

**KAROLINSKA SLEEPINESS SCALE VALUES DURING AND AFTER ADMINISTRATION OF TAK-925**

1. TAK-925 effective plasma half-life <2 hours
2. End of infusion
3. TAK-925 improved subjective and objective measures of wakefulness

**TAK-925**

- Placebo
- TAK-925 5 mg
- TAK-925 11.2 mg
- TAK-925 44.8 mg

1. TAK-925 effective plasma half-life <2 hours
TAK-925 MAINTAINED WAKEFULNESS IN SLEEP-DEPRIVED HEALTHY ADULTS IN A SECOND PHASE 1 STUDY

SLEEP LATENCY IN THE MAINTENANCE OF WAKEFULNESS TEST (MWT) IN SLEEP-DEPRIVED HEALTHY ADULTS

Results suggest potential therapeutic use of TAK-925 in other hypersomnia disorders not associated with orexin deficiency

TAK-925 was well-tolerated; most AEs were mild and no SAEs were observed

---

WE ARE COMMITTED TO LEADING INNOVATION IN OREXIN BIOLOGY AND EXPANDING THERAPEUTIC INDICATIONS FOR OX2R AGONISTS


***: p-value <0.001 relative to placebo

---

REM: Rapid eye movement

1. Individuals with Obstructive Sleep Apnea who are compliant with use of continuous positive airway pressure at night

Top priority

Other hypersomnia disorders

Additional opportunities for expansion

- **TAK-925-1003** for Narcolepsy Type 2 (NCT03748979)
- **SPARKLE 2001** study for Residual EDS in Obstructive Sleep Apnea (NCT04091425)
- **SPARKLE 2002** study for Idiopathic Hypersomnia (NCT04091438)
TAK-994 IS AN ORAL OX2R AGONIST PROGRESSING TO STUDIES IN NARCOLEPSY TYPE 1

TAK-994-1501 PROOF OF CONCEPT STUDY IN NARCOLEPSY TYPE 1

- Multi-center, placebo-controlled trial in North America and Japan
- Enrollment target: 72 adults
- Duration of treatment: 28 days dosing
- Exploratory outcome measures include Maintenance of Wakefulness Test (MWT), Epworth Sleepiness Scale (ESS), and Weekly Cataplexy Rate (WCR)

Proof of Concept trial: ClinicalTrials.gov Identifier: NCT04096560

DIGITAL TECHNOLOGIES ARE ENHANCING THE DEVELOPMENT OF OX2R AGONISTS FOR SLEEP DISORDERS

TRADITIONAL CLINICAL INSTRUMENTS DO NOT FULLY MEASURE SYMPTOMS OF SLEEP DISORDERS

DIGITAL MEASURES WILL FURTHER CHARACTERIZE SLEEP ARCHITECTURE AND SUPPORT CLINICAL TRIAL ASSESSMENTS

- Real-time data capture to understand disease burden and effects of treatment
- Non-invasive measures to optimize therapy
- Patient stratification using digital fingerprints

Hand-scored polysomnography (PSG)¹

PATIENT ACTIVITY DIARY for Holter Electrocardiogram

Automated analysis of NT1 nPSG²

nPSG – Night time polysomnography

WE ASPIRE TO BRING A POTENTIALLY TRANSFORMATIVE OX2R AGONIST SOLUTION TO INDIVIDUALS WITH NARCOLEPSY TYPE 1

**TAK-925**
- Achieved early Proof of Concept for NT1
- Awarded Breakthrough Therapy Designation
- Awarded Sakigake Designation
- Launched formulation development activities

**TAK-994**
- TAK-994, first oral OX2R agonist, entered phase I
- Initiate SPARKLE-1501 Proof of Concept study in NT1
- Initiation of NT1 pivotal studies First approval targeted for 2024

Thank you to all the study participants who have enrolled in these early OX2R agonist clinical trials

**SUMMARY**

1. TAK-925 has achieved early Proof-of-Concept for OX2R agonists in Narcolepsy Type 1
2. TAK-925 has demonstrated potential of OX2R agonists for treatment of other sleep-related disorders
3. TAK-994 is an oral OX2R agonist progressing to studies in Narcolepsy Type 1
<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 11:00 – 11:05 | Welcome and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance |
| 11:05 – 11:45 | Realizing the Potential of Plasma-derived Therapies  
Julie Kim, President, Plasma-Derived Therapies Business Unit |
| 11:45 – 12:15 | A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies  
Christopher Morabito, M.D., Head of R&D, Plasma-Derived Therapies |
| 12:15 – 12:45 | Q&A session |
| 12:45 – 13:25 | Lunch Break |
| 13:25 – 13:35 | Welcome back and Introduction of Presenters  
Ayako Iwamuro, Investor Relations, Global Finance |
| 13:35 – 13:45 | Takeda: A Global Values-Based, R&D-Driven Biopharmaceutical Leader  
Christophe Weber, President & CEO Takeda |
| 13:45 – 14:15 | Translating Science into Highly Innovative, Life-changing Medicines  
Andy Plump, President R&D |
| 14:15 – 14:40 | Oncology and Cell Therapies with Spotlight on CAR-NK  
Chris Arendt, Head Oncology Drug Discovery Unit |
| 14:40 – 15:00 | Spotlight on Oncology Opportunities  
• TAK-788: Rachel Brake, Global Program Lead  
• Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit |
| 15:00 – 15:20 | Break |
| 15:20 – 15:45 | Rare Diseases & Gene Therapy  
Dan Curran, Head Rare Disease Therapeutic Area Unit |
| 15:45 – 16:00 | Spotlight on Orexin2R agonists  
Deborah Hartman, Global Program Lead |
| 16:00 – 16:20 | Therapeutic Area Focus in GI with Spotlight on Celiac Disease  
Asit Parikh, Head GI Therapeutic Area Unit |
| 16:20 – 17:00 | Panel Q&A Session |
| 17:00     | Drinks reception |

**THERAPEUTIC AREA FOCUS IN GI WITH SPOTLIGHT ON CELIAC DISEASE**

Asit Parikh, MD, PhD  
Head Gastroenterology Therapeutic Area Unit  
Takeda Pharmaceutical Company Limited  
Tokyo  
November 21, 2019
WE TARGET UNMET NEEDS THAT ALIGN WITH OUR STRENGTHS

Areas of Focus
- High unmet medical need
- Potential to advance SoC through innovative science – by being first or best in class
- Fit with internal strengths
- Ability to create a commercially viable path

GI WW RX Sales 2018 (USD BN)
- Total = $578Bn
- GI inflammation
- GI motility
- Liver fibrosis
- Acid related diseases

Takeda GI Disease Areas

SOURCE: Evaluate Pharma indication specific sales, accessed May 29, 2019. Other GI includes: pancreatic insufficiency, hepatic encephalopathy, diarrhea, bowel clearance, gallstones, hemorrhoids

WE STRENGTHEN ENTYVIO BY CONTINUOUSLY IMPROVING VALUE FOR PATIENTS

Competitive Positioning
Varsity: 1st Head-to-Head study in IBD (UC)
- Vedolizumab was superior to adalimumab on the primary endpoint of clinical remission at wk 52
- Onset of action as rapid as anti-TNF

Change in Partial Mayo Score from Baseline

Entyvio Subcutaneous Development
- Positive VISIble UC and CD trials
- Subject to regulatory approval, on track to launch exclusive, digital, needle-free jet-injector by 2022

Entyvio IV
- Approved in 68 countries
- Launched in Japan (UC: Nov 2018, CD: May 2019)

Expanding Patient Populations

Gut GvHD prophylaxis
- Could transform SoC for cancer patients undergoing allo stem-cell transplants

Geographic Expansion

Expected Milestones (FY)

IBD: Inflammatory Bowel Disease; UC: ulcerative colitis; CD: Crohn’s Disease; IV=intravenous; SC=subcutaneous; TNF=tumour necrosis factor; SoC: standard of care; CN: China; JP: Japan; GvHD: graft versus host disease; Clinical remission: Complete Mayo score of 2 points and no individual subscore >1 point
TAK-721: ON TRACK TO BE THE FIRST FDA APPROVED AGENT TO TREAT EOSINOPHILIC ESOPHAGITIS (EOE)

**ADDRESSES SIGNIFICANT UNMET NEED**

- Chronic, allergic, inflammatory condition of the esophagus that results in swallowing dysfunction
- Diagnosed prevalence is expected to increase significantly

**No approved US medication**

SOC is food elimination, off-label use¹

TAK-721 granted breakthrough therapy designation by FDA in 2016

**EXPECTED MILESTONES (FY)**

<table>
<thead>
<tr>
<th>Q1: Launch</th>
<th>Q2: NDA filing</th>
<th>Q4: Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2020</td>
<td>2021</td>
</tr>
</tbody>
</table>

**RESULTS OF PHASE 2 STUDY**

- **Histologic Response at 12 Weeks (peak ≤ 6 eosinophils/hpf on biopsy)**
  - TAK-721: 53.1% vs Placebo: 1.0%
  - *p* < 0.001

- **Symptom Response at 12 Weeks (≥ 30% reduction in DSQ score)**
  - TAK-721: 52.6% vs Placebo: 39.1%
  - *p* = 0.024

**INDUCTION DATA SHOWS SIGNIFICANT HISTOLOGIC AND SYMPTOM RESPONSE**

Results presented at presidential plenary at ACG, Texas, Oct 2019

**INDICATIONS**

- Eosinophilic esophagitis
- Chronic, allergic, inflammatory condition of the esophagus that results in swallowing dysfunction

**ORPHAN POTENTIAL**

- Multiple orphan potential indications

**SLIDESHOW**

- slide 1: TAK-721: ON TRACK TO BE THE FIRST FDA APPROVED AGENT TO TREAT EOSINOPHILIC ESOPHAGITIS (EOE)
- slide 2: TAK-721 granted breakthrough therapy designation by FDA in 2016
- slide 3: EXPECTED MILESTONES (FY)
- slide 4: RESULTS OF PHASE 2 STUDY
- slide 5: INDUCTION DATA SHOWS SIGNIFICANT HISTOLOGIC AND SYMPTOM RESPONSE
- slide 6: INDICATIONS
- slide 7: ORPHAN POTENTIAL

---

**NOTES**

1. Projected timing of approvals depending on data read-outs; some of these Wave 1 target approval dates assume accelerated approval
2. Some Wave 2 assets could be accelerated into Wave 1 if they have breakthrough data
3. Projected approval date assumes filing on Phase 2 data
4. TAK-079 to be developed in Rare Diseases indications myasthenia gravis (MG) and immune thrombocytopenic purpura (ITP) (FPI projected in each indication in 2H FY19)

---

**TAK-721: ON TRACK TO BE THE FIRST FDA APPROVED AGENT TO TREAT EOSINOPHILIC ESOPHAGITIS (EOE)**

- **ADDRESSES SIGNIFICANT UNMET NEED**
  - Chronic, allergic, inflammatory condition of the esophagus that results in swallowing dysfunction
  - Diagnosed prevalence is expected to increase significantly

- **No approved US medication**
  - SOC is food elimination, off-label use¹

- **TAK-721 granted breakthrough therapy designation by FDA in 2016**

---

**EXPECTED MILESTONES (FY)**

- Q1: Launch
- Q2: NDA filing
- Q4: Approval

---

**RESULTS OF PHASE 2 STUDY**

- **Histologic Response at 12 Weeks (peak ≤ 6 eosinophils/hpf on biopsy)**
  - TAK-721: 53.1% vs Placebo: 1.0%
  - *p* < 0.001

- **Symptom Response at 12 Weeks (≥ 30% reduction in DSQ score)**
  - TAK-721: 52.6% vs Placebo: 39.1%
  - *p* = 0.024

---

**INDICATIONS**

- Eosinophilic esophagitis
- Chronic, allergic, inflammatory condition of the esophagus that results in swallowing dysfunction

---

**ORPHAN POTENTIAL**

- Multiple orphan potential indications

---

**SLIDESHOW**

- slide 1: TAK-721: ON TRACK TO BE THE FIRST FDA APPROVED AGENT TO TREAT EOSINOPHILIC ESOPHAGITIS (EOE)
- slide 2: TAK-721 granted breakthrough therapy designation by FDA in 2016
- slide 3: EXPECTED MILESTONES (FY)
- slide 4: RESULTS OF PHASE 2 STUDY
- slide 5: INDUCTION DATA SHOWS SIGNIFICANT HISTOLOGIC AND SYMPTOM RESPONSE
- slide 6: INDICATIONS
- slide 7: ORPHAN POTENTIAL

---

**NOTES**

1. Projected timing of approvals depending on data read-outs; some of these Wave 1 target approval dates assume accelerated approval
2. Some Wave 2 assets could be accelerated into Wave 1 if they have breakthrough data
3. Projected approval date assumes filing on Phase 2 data
4. TAK-079 to be developed in Rare Diseases indications myasthenia gravis (MG) and immune thrombocytopenic purpura (ITP) (FPI projected in each indication in 2H FY19)
CELIAC DISEASE IS AN EXAMPLE OF A HIGH UNMET NEED AREA WITH NO THERAPIES

- Overlooked disease, growing prevalence
- Chronic symptoms
- Higher risk of certain cancers
- High treatment burden affecting the whole family
- No current pharmacologic therapies

“Some of us are so extremely sensitive that one little crumb will make us extremely sick. I’m one of those people, and there is really nothing I can do about it.”

— Delisi, Celiac disease patient

WE ARE FOCUSING ON THE NARROWEST POPULATION WITH HIGH UNMET NEED

- Niche patient segment with the highest unmet need
- Severe symptoms with villous atrophy
- Continue to suffer despite the GFD and are highly likely to take a therapy

*Uncontrolled defined as ongoing chronic moderate to severe symptoms with villous atrophy
OUR APPROACH TO TREATING CELIAC DISEASE

TREATMENT OPPORTUNITIES FOR CELIAC DISEASE

1. Enzymatic digestion of gluten
2. Reduce intestinal permeability
3. Microbiome modulation
4. Cytokine inhibition
5. Transglutaminase inhibition
6. Promote Immune tolerance

Kuma062 promises greatly increased enzymatic efficiency and improved formulation over predecessors

TAK-101 (TIMP-GLIA) has the potential to be a first in class, tolerizing immune therapy for celiac disease

KUMA062: A HIGHLY POTENT ORAL GLUTENASE THAT COULD CHANGE THE STANDARD OF CARE IN CELIAC DISEASE

ABOUT KUMA062

- Kuma062 is an oral, computationally-engineered super glutenase
- Enhanced catalytic activity compared to other glutenases

GLUTEN RECOVERY IN Gastric CONTENTS ASPIRATED 30MINS AFTER MEAL CONTAINING 3G OF GLUTEN

GLUTEN (mg)

Optimal activity at the pH range of the stomach after a meal

Resistance to common digestive proteases

Specificity for peptides with immunogenic regions of gliadin

Eliminates ex vivo T cell response to all 3 major gliadin families

CLINICAL DATA SHOWS KUMA062 CAN DEGRADe >95% OF INGESTED GLUTEN

Gluten recovery in gastric contents aspirated 30mins after meal containing 3g of gluten

- Kuma well-tolerated, no identified safety concern
- Decision to acquire PVP Biologics expected Q3 FY2019
TAK-101: POTENTIAL BEST-IN-CLASS, INTRAVENOUS THERAPY FOR CELIAC DISEASE DESIGNED TO MODIFY T CELL RESPONSE

ABOUT TAK-101*

• Biodegradable polymer encapsulating antigen
• Designed to induce tolerance to gluten, reduce T cell responses to gliadin

• Expected to provide durable (3 months or longer) down regulation of T cell responses to immunogenic gliadin peptides

TAK-101 REDUCES IMMUNE ACTIVATION AFTER GLUTEN EXPOSURE

Interferon-gamma ELISPOT measurement of gluten-responsive T cells

<table>
<thead>
<tr>
<th>Placebo</th>
<th>TIMP-GLIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=16</td>
<td>n=13</td>
</tr>
</tbody>
</table>

Increase in gluten-responsive T cells (spot-forming units)

\[ p = 0.0056 \]

Treatment with TAK-101 reduced immune activation by >85%

TAKEDA ACQUIRED EXCLUSIVE GLOBAL LICENSE TO TAK-101

*Formerly TIMP-GLIA
Source: https://www.courpharma.com/our-technology/

WE ARE LEADING THE SCIENCE IN CELIAC DISEASE WITH A NEW AI - BASED TOOL AND INGESTIBLE DEVICE

PIONEERING AT BOUNDARIES OF CLINICAL MEDICINE

• Innovative, non-invasive, patented method of measuring total burden of intestinal disease

INNOVATIVE USE OF TECHNOLOGY

• Ingestible high resolution camera pill
• Modern machine-learning/ AI based image processing

PRECISION MEASUREMENT USING AI

• Pioneering Automated Image assessment quantifies disease burden

*Formerly TIMP-GLIA
Source: https://www.courpharma.com/our-technology/
Takeda is the best company to bring celiac therapies to patients

World-class, fully connected GI commercial infrastructure across 65+ countries that supports $6bn+ revenues

- Extensive GI clinical footprint
- Strong reputation for scientific excellence
- Lauded for calculated risk-taking by the GI community
- Experience with redefining guidelines and treatment paths

NME Milestones Achieved in FY19 and Looking Ahead to Other Potential Milestones^1 Through FY20

Pivotal Study Starts, Approvals

1H FY 2019
- TAK-811 Mucositis, Ph 3 start
- TAK-755 TTP Ph 3 start
- TAK-101 Celiac Disease POC

2H FY 2019
- Pevonedistat, ANA, Ph 3 start
- TAK-788 NL536C Ph 3 start
- TAK-321 Hem. Malignancies POC
- TAK-599 NTRK Ph 3 data 2yr extension
- HMTT AGO Huntingdon’s Disease POC

1H FY 2020
- TAK-788 NL536C, Ph 3 pivotal
- TAK-523 R/R MM, Solid Tumor POC

2H FY 2020
- TAK-721 GLP-1
- TAK-423 R/R CMV SOT & HSCT Ph 3 data
- TAK-933 DEE POC
- TAK-939 Constipation POC
- TAK-935 Nausea & Vomiting POC

Denotes milestones that have been achieved.

Key Data Readouts

1. Potential key milestone dates as of November 14, 2019. The dates included herein are estimates based on current data and are subject to change.
2. Potentially registration enabling
SUMMARY

We have built an industry-leading portfolio rooted in unparalleled scientific excellence and outstanding global commercial strength.

We are well positioned to bring the first therapies to celiac patients that could change the standard of care.

We have multiple milestones, including expected key approvals in the next 2 years that will be transformative for patients.

R&D DAY AGENDA – TOKYO, NOVEMBER 21, 2019

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 – 11:05</td>
<td>Welcome and Introduction of Presenters</td>
</tr>
<tr>
<td></td>
<td>Ayako Iwamuro, Investor Relations, Global Finance</td>
</tr>
<tr>
<td>11:05 – 11:45</td>
<td>Realizing the Potential of Plasma-derived Therapies</td>
</tr>
<tr>
<td></td>
<td>Julie Kim, President, Plasma-Derived Therapies Business Unit</td>
</tr>
<tr>
<td>11:45 – 12:15</td>
<td>A New Dedicated Focus on Innovative, Sustainable Solutions for Plasma-Derived Therapies</td>
</tr>
<tr>
<td></td>
<td>Christopher Morabito, M.D., Head of R&amp;D, Plasma-Derived Therapies</td>
</tr>
<tr>
<td>12:15 – 12:45</td>
<td>Q&amp;A session</td>
</tr>
<tr>
<td>12:45 – 13:25</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>13:25 – 13:35</td>
<td>Welcome back and Introduction of Presenters</td>
</tr>
<tr>
<td></td>
<td>Ayako Iwamuro, Investor Relations, Global Finance</td>
</tr>
<tr>
<td>13:35 – 13:45</td>
<td>Takeda: A Global Values-Based, R&amp;D-Driven Biopharmaceutical Leader</td>
</tr>
<tr>
<td></td>
<td>Christophe Weber, President &amp; CEO Takeda</td>
</tr>
<tr>
<td>13:45 – 14:15</td>
<td>Translating Science into Highly Innovative, Life-changing Medicines</td>
</tr>
<tr>
<td></td>
<td>Andy Plump, President R&amp;D</td>
</tr>
<tr>
<td>14:15 – 14:40</td>
<td>Oncology and Cell Therapies with Spotlight on CAR-NK</td>
</tr>
<tr>
<td></td>
<td>Chris Arendt, Head Oncology Drug Discovery Unit</td>
</tr>
<tr>
<td>14:40 – 15:00</td>
<td>Spotlight on Oncology Opportunities</td>
</tr>
<tr>
<td></td>
<td>• TAK-788: Rachel Brake, Global Program Lead</td>
</tr>
<tr>
<td></td>
<td>• Pevonedistat: Phil Rowlands, Head Oncology Therapeutic Area Unit</td>
</tr>
<tr>
<td>15:00 – 15:20</td>
<td>Break</td>
</tr>
<tr>
<td>15:20 – 15:45</td>
<td>Rare Diseases &amp; Gene Therapy</td>
</tr>
<tr>
<td></td>
<td>Don Curran, Head Rare Disease Therapeutic Area Unit</td>
</tr>
<tr>
<td>15:45 – 16:00</td>
<td>Spotlight on Orexin2R agonists</td>
</tr>
<tr>
<td></td>
<td>Deborah Hartman, Global Program Lead</td>
</tr>
<tr>
<td>16:00 – 16:20</td>
<td>Therapeutic Area Focus in GI with Spotlight on Celiac Disease</td>
</tr>
<tr>
<td></td>
<td>Ask Parikh, Head GI Therapeutic Area Unit</td>
</tr>
<tr>
<td>16:20 – 17:00</td>
<td>Panel Q&amp;A Session</td>
</tr>
<tr>
<td>17:00</td>
<td>Drinks reception</td>
</tr>
</tbody>
</table>
Panel Q&A Session