37th Annual J.P. Morgan Healthcare Conference

Hanmi Pharmaceutical Co., Ltd.

Se Chang Kwon
President & CEO
This presentation contains forward-looking statements with respect to the financial condition, results of operations and businesses of Hanmi Pharmaceutical Company. By their nature, forward-looking statements and forecasts involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. There are a number of factors that could cause actual results and developments to differ materially from that expressed or implied by these forward-looking statements. These factors include, among other things, the loss or expiration of patents, marketing exclusivity or trade marks; exchange rate fluctuations; the risk that R&D will not yield new products that achieve commercial success; the impact of competition, price controls and price reductions; taxation risks; the risk of substantial product liability claims; the impact of any failure by third parties to supply materials or services; the risk of delay to new product launches; the difficulties of obtaining and maintaining governmental approvals for products; the risk of failure to observe ongoing regulatory oversight; the risk that new products do not perform as we expect; and the risk of environmental liabilities.
Hanmi is a leading R&D oriented company with fully integrated value chains in Korea and China.
Our Key Businesses

KOREA
- Headquarters (Seoul)
- 6 R&D centers
- 3 Manufacturing sites
- Innovative drug development
  - LAPSCOVERY Platform
  - Targeted NCE Discovery

GLOBAL
- Partnerships worth $6B to date
- Establish Global Alliance through strong collaborations with our Valued Partners

CHINA
- Beijing Hanmi
- Manufacturing & local sales networks
- Novel research activity
  - PENTAMBODY Platform

Partnerships worth $6B to date
Establish Global Alliance through strong collaborations with our Valued Partners

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We Value Our R&D

- Strong focus on R&D
- Over +580 experts (Ph.D. 65, MS. 332)

- Drive R&D productivity by expanding chemical and biologics plants

- Strong commitment to foster robust R&D pipeline

- 25% R&D Staffs
- 75% Industry Avg*

- Manufacturing Capacity
  - Bio-plant expansion completed in 4Q18
  - Capacity increased by 10-fold

- R&D expenditure to sales ratio
  - No.1 in Korea
  - +19% Hanmi

*Average R&D expense-to-sales ratio of top 20 Korean pharmaceutical companies in 3Q18 (YTD)
• 4th GEN. Fully Automated SMART plant
• Design Concept
  - Logistic / Production / Process Automation
• Annual production capacity
  : max. up to 14 bil. tablets/capsules
• CDMO business expansion

Expanded Production Capacity by 10-fold

Global Commercial Manufacturing of Biologics

• Fermentation
  - 10,000L x 2 Bioreactors
  - 1,000L x 2 Bioreactors
  - 300L x 3 Bioreactors
• Production Lines
  - 5+2 DS, 3 DP
Innovation in core therapeutic areas

Utilize platform technologies to discover novel biological/chemical entities with the world’s leading trend

**Obesity**

LAPG Glucagon analog showing surpassing weight loss effect with OAD combination synergy and minimal hyperglycemic event

**NASH**

LAPG GLP-1/GIP/GCG agonist showing promising efficacy in NASH/fibrosis improvement

**Oncology**

FLT3 inhibitor with effective antitumor activity against wide range of FLT3 mutations in AML

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*Notes: FLT3: FMS-like tyrosine kinase 3; AML: acute myeloid leukemia; OAD: Oral Anti-diabetic Drug*
# Innovative R&D Pipeline (Dec 2018)

<table>
<thead>
<tr>
<th>Pre-Clinical</th>
<th>Phase 1</th>
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<td><strong>9</strong> Obesity/NASH Diabetes</td>
<td><strong>11</strong> Oncology</td>
<td><strong>2</strong> Autoimmune</td>
<td><strong>4</strong> Rare Diseases</td>
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<tr>
<td>HM14320 (LAPS-Glucagon Combo) Obesity/NASH/Diabetes</td>
<td>HM15211 (LAPS-Triple Agonist) NASH</td>
<td>HM12525A/JNJ-64565111 (LAPS-GLP/GCG) Obesity</td>
<td>Efpeglenatide (LAPS-Exd4 Analog) Diabetes</td>
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<td>HM14220 (LAPS-Insulin Combo) Diabetes</td>
<td>HM15136 (LAPS-Glucagon Analog)</td>
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<td>Rouxen™ (Eflapegrastim) Neutropenia</td>
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<td>HM12480 (LAPS-Insulin148) Diabetes</td>
<td>HM12460A (LAPS-Insulin) Diabetes</td>
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<td>Oraxol™ (Paclitaxel+HM30181A)</td>
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<td>HM12470 (LAPS-Insulin Analog) Diabetes</td>
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<td>Oradoxel™ (Docetaxel+HM30181A)</td>
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<td>HM21001 (GBM Stem Cell Therapy) Glioblastoma</td>
<td>Belvarafenib (Pan-RAF Inhibitor) Solid tumor</td>
<td>Poziotinib (Pan-HER Inhibitor) Solid tumor</td>
<td>Oratecan™ (Irinotecan+HM30181A) Solid tumor</td>
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<td>BH2950 (PD-1/HER2 BsAb) Targeted immuno-oncology</td>
<td>HM43239 (FLT3 Inhibitor) AML</td>
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<td>BH29xx (PD-L1/CD47 BsAb) Targeted immuno-oncology</td>
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<td>HM15136 (LAPS-Glucagon Analog) Congenital hyperinsulinism</td>
<td>Luminate® (Integrin inhibitor) Retinitis Pigmentosa</td>
<td>Efpegasmatropin (LAPS-hGH) GH deficiency</td>
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<td>HM15912 (LAPS-GLP-2 Analog) Short bowel syndrome</td>
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<td>Luminate® (Integrin inhibitor) Diabetic Macular Edema</td>
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</tbody>
</table>

**Key Highlight Programs**
- Open to Partnering Discussions (China Only)
- Beijing Hanmi

1) P3 in South America & Taiwan
High Unmet Needs in Obesity still exist (Current medication weight loss 5% ~ 10%)

Potential new anti-obesity medication via combined mode of action

- **White adipose tissue**
- **LAPSGlucagon analog (HM15136)**
  - Increase energy expenditure
  - Lipid metabolism reprogramming
  - Fat mass reduction

- **Beige adipose tissue**
  - Browning
  - Satiety control
  - Food intake reduction
  - Lipid clearance & synthesis improvement

**“Weight loss”**

- **Portal vein**
- **Vagal nerve signaling**
- **Fatty liver**
- **Normal liver**
The Best in Class Treatment in Obesity Indication

Key Features

- Body weight loss in Monotherapy over 31.9% (liraglutide ~13.7%).
- In combination with OAD, body weight loss over 46.9%.
- Favorable pharmacologic actions in energy expenditure and food intake

Combination therapy Body weight loss in DIOⁱ mice

- Liraglutide (3 mg/day in human) -34.5% LAPSGCG
- Sitagliptin (400 mg/day in human) + LAPSGCG -46.9% OAD²
- LAPSGlucagon analog (3 mg/wk in human) -16.3% Liraglutide
- Vehicle -0.1% DPP-4i²

Mono-therapy Body weight loss in DIOⁱ mice

- DPP-4i (400mg, daily) +2.5%
- Liraglutide (3 mg, daily) -13.7%
- LAPSGlucagon analog (3mg, weekly) -31.9%

✓ FIH study is on-going
✓ MAD study will be initiated in 2Q 2019

Footnote
¹Diet-induced obesity, ²Oral anti-diabetic drug DPP-4i (Sitagliptin)
NASH: \text{LAPSGLP/GIP/GCG Tri-agonist (HM15211)}

- NASH, Complex Chronic Liver Disease
- Surpassing efficacy in NASH/fibrosis prevention and treatment with weight loss effect

**Steatosis**

**GIP Role**
- FFA synthesis
- TG synthesis
- CHO synthesis

**Glucagon Role**
- Excessive energy intake
- GLP1 Role

**Inflammation**
- Immune cell recruitment
- Immune response
- Tissue injury
- Fibrogenesis

- CCR2/CCR5 inhibitor
- FXR agonist
- ASK1 inhibitor
- Caspase inhibitor
- CCR2/CCR5 inhibitor
- Galentin-3 inhibitor / HSP-47 inhibitor

**Fibrosis**

- Multiple MoA can resolve NASH very effectively
- GIP Activity for anti-inflammatory effect
- High glucagon activity for liver targeting
Dramatic Reduction of NASH Biomarkers in Liver

Key Features

- Potent actions in hepatic TG, ALT, NAS score and Fibrosis
  - Liver preferential distribution
  - Favorable hepatic lipid metabolism reprogramming
  - Direct anti-inflammatory effect

- PoC and potent efficacy confirmed in various NASH and fibrosis animal models including NHP

- Unprecedented weight loss efficacy and potential for indication expansion including hyperlipidemia

*Note: MRI T1W image, fat has high signal (white), water has low signal (black)
NASH: LAPSTri-agonist (HM15211) : Promising outcome in Primates

Biopsy proven Potency in Obese-NASH Monkey

Key Features
- Potent Body Weight Loss and Liver fat decrease observed
- Novel mode of action affecting multiple steps directly in NASH/fibrosis improvement
- Improvement in Lipid Profiles: TG, LDL, VLDL
- Targeting Obese-NASH patients

 ✓ Obese Subject P1 MAD study on-going
 ✓ NAFLD and data disclosure: Oct. 2019
Promising treatment of Acquired Resistance by previous FLT3 inhibitor

**Key Features**

- Overcome the resistance mechanism of current FLT3 inhibitors
- Active against wide range of FLT3 mutations in AML including WT FLT3
- Highly increased survival time and evident reduction of tumor invaded into the brain in tail vein injection model
- Effective to secondary FLT3 TKD resistance mutations induced by previous FLT3 inhibitors (e.g. D835Y and F691L)

**FDA ODD Granted (Oct. 2018)**

**US/KR FIH study initiation in 1Q 2019**
**Oncology**: Poziotinib for Exon 20 Insertion Mutation NSCLC

**Novel Pan-HER tyrosine kinase inhibitor**

High unmet need for EGFR & HER2 exon 20 mutation

**Key Features**

- Significant antitumor activity in EGFR exon 20 mutant NSCLC patients
  - Objective response rate 55% (43% confirmed)
  - Median PFS 5.5m and 6 patients treated>1y thus far
  (MD Anderson Cancer Center sponsored trial)

**Rapid Development Expansion in China**

- Potential First / Best in Class drug in China market
- China IND Submission: Targeting 1H 2019
- China NDA Submission: Targeting 2H 2022

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† Data presented at IASLC 2018 by MD Anderson Cancer Center
Targeting Non-responder of anti-TNF\(\alpha\) in RA Patients

**Key Features**

- Better efficacy compared to the standard therapy (combination of anti-TNF\(\alpha\) + MTX) in animal models
- Significant anti-inflammatory activity against non-responder of anti-TNF\(\alpha\) therapy in animal models
- Similar PK profiles compared to Humira mAb in mice and monkeys

**US/CN IND submission in 4Q 2019**
Rare Disease: \textit{LAPSGLP-2 Program / Peptide}

\textit{LAPSGLP-2 Analog : US/EU ODD$^1$ Granted for Short bowel syndrome}

\textit{LAPSERT (Enzyme Replacement Therapy)}

Intestinotrophic effect of \textit{LAPSGLP-2 analog} in mice

**Key Features**

- Potent intestinotrophic action of \textit{LAPSGLP-2 analog}:
  - Possibly liberate more patients from parenteral nutrition than teduglutide

- ‘Once-a-week’ or possible ‘Once-a-month’:
  - less frequent dosing
  - less parental nutrition to achieve a better QoL.

- Ready-to-inject with soluble formulation:
  - reduces inconvenience and dosing error of reconstitution formulation of teduglutide

✓ FIH study will be initiated in 1Q 2019
Major R&D Achievements

Collaboration with global partners on various co-development and business opportunities

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<td>Anti-HER2/PD-1</td>
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<td>Irbesartan+Atorvastatin</td>
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<td>RAF inhibitor</td>
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<td>The world's first Combination IMD</td>
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Value-added Programs

- Delivering double-digit growth in domestic market with value-added products
- Launching 2~3 products annually
- Seeking partners for emerging market business
- Rosuzet®, Amosartan® (FDC Products) Collaboration with MSD for 23 countries

** IMD (Incrementally Modified Drug)
** FDC (Fixed Dose Combination)

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<tr>
<th>Product</th>
<th>Collaboration</th>
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<td>Rabone D®</td>
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<td>Nocotine®</td>
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* IMD (Incrementally Modified Drug)
** FDC (Fixed Dose Combination)

Launched 2015 ~ 2018 Clinical stage
## Potential news flows in 2019

### PHASE 3
- **Efpeglenatide** Global P3 Ongoing
- **Oraxol** Global P3 Ongoing

### PHASE 2
- **LAPS** Glucagon P2 initiation *(4Q)*
- **LAPS** Triple Agonist (HM15211) P2 initiation *(4Q)*
- **LAPS** GLP/GCG dual agonist (HM12525A/JNJ-64565111) P2 completion *(1H)*
- **Poziotinib** China P2 initiation *(1H)*
- **Poziotinib** Global P2 Study Results *(2H)*

### PHASE 1
- **LAPS** Glucagon Combo P1 initiation *(3Q)*
- **LAPS** GLP-2 Analog P1 initiation *(1Q)*
- **FLT3 Inhibitor** P1 initiation *(1Q)*

### Registration
- **Rolontis™** FDA Approval *(4Q)*
Thank you