Innovation: Avoid At Your Own Risk

Dr. Sharvil Patel  I  MD, Cadila Healthcare Ltd.
Why do we need Innovation?

Product Innovations at Zydus

Process Innovations at Zydus

Zydus : Current Stand
On the back of its process innovation, India is known as “Pharmacy of the world”

India:
"Pharmacy of the World”…

…. is the largest provider of generic drugs globally. Indian pharmaceutical sector supplies

>50% Global Demand of Vaccines

>40% Generic Demand of US Market

~25% All medicines in the UK

- India is among the top 10 formulation exporting countries in the world, 4th largest by volume and 10th largest by value

Source: https://www.ibef.org/industry/pharmaceutical-india.aspx
During 2010 to 2015, Indian Pharma index outperformed market...

2010-15
NIFTY 50 vs. NIFTY Pharma Index
...but in last few years, Pharma index has underperformed

Growth trajectory has slowed down owing to...

- Uncertain market conditions
- Stringent regulatory norms
- Pricing Pressure

While the challenges will persist, we will need to find avenues to drive growth....
Innovation will be an essential ingredient in future growth recipes of Indian Pharma companies...

... the next growth leap is through stepping in innovative and research based drugs

Evolution of Indian Pharma Industry

Source : Team Analysis
Innovation will play a critical role in this journey and help augment industries contribution to Indian and global healthcare

<table>
<thead>
<tr>
<th>Innovation can drive significant health and economic benefits for India</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduce India's Disease burden</strong></td>
</tr>
<tr>
<td><strong>Job creation</strong></td>
</tr>
<tr>
<td><strong>Increase in exports</strong></td>
</tr>
</tbody>
</table>

The industry needs to maintain its relevance by expanding into NME space that accounts for 2/3rd of global value pool and where India has small presence today

<table>
<thead>
<tr>
<th>Pharma market value¹</th>
<th>Share of approvals 2015-18¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent</strong></td>
<td><strong>Percent</strong></td>
</tr>
<tr>
<td>Generics (incl. complex Generics)</td>
<td>~25</td>
</tr>
<tr>
<td>Incremental innovation</td>
<td>8-10</td>
</tr>
<tr>
<td>New molecular entities (NMEs)</td>
<td>~65</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Indian pharma industry has established its dominance in the generics space and now needs to move up the value chain to build a strong innovation ecosystem

Source: Evaluate pharma, USFDA website
Focus is required across five key building blocks to enable “innovation at scale” in India

Need for enabling regulations to spur innovation
Current regulatory landscape is fraught with multiple challenges including long undefined review timelines, low process visibility, multiple rounds of approvals, and low overall capacity.

Requirement of dedicated ‘Innovation’ hubs with best-in-class infrastructure
‘Best in class’ infrastructure for innovation is currently limited and concentrated in a few nascent innovation hubs in the country.

Policy landscape to encourage innovation at scale
The policy landscape has room for improvement, especially given high disparity between imports and exports, and non-alignment of R&D focus with disease burden in the country.

Augment funding and incentivization to drive innovation
Investment incentivization is currently weak, as a result of low private investment in the space, low overall funding by GoI (<$1Bn) compared to global leaders (US is at ~$50-60 Bn), and limited investor confidence in the innovation space.

Need to improve industry academia linkages
Industry academia collaboration today is impeded by issues such as lack of high quality of infrastructure and talent, low industry orientation of research, and lack of accountability and trust (H index of India is 624 vs 2386 of US in relevant fields).
Why do we need Innovation?
Product Innovations at Zydus
Process Innovations at Zydus
Zydus : Current Stand
At Zydus, we aim to create healthier communities through our Innovation, making therapies accessible and bridging unmet needs.

**NCE & NBEs**
- Multiple NCEs in pipeline
- Saroglitazar — lead molecule
- TWINRAB - 1st NBE from Zydus in collaboration with WHO

**Biosimilars**
- 1st global biosimilar of Adalimumab; launched in India

**Vaccine**
- 1st Indian company to launch indigenously developed H1N1 vaccine
- 2nd company in the world to develop TCV

**Gx, Specialty & Complex Gx**
- 150+ product launches in the US

#1 in Sugar substitutes, Butter substitute, glucose powder category & Skin Care
Saroglitazar is a novel drug with approvals for multiple emerging markets

- The approval of Saroglitazar was based upon the results of the EVIDENCES I, II and IV studies
- Drug met its primary and secondary endpoints in the US Phase II EVIDENCES IV trial

2013
Approved for 2 indications in India
- Hypertriglyceridemia
- Diabetic Dyslipidemia

2017-18
Approved for 2 indications in Mexico (2017) and EM markets (2018)
- Hypertriglyceridemia
- Diabetic Dyslipidemia

2019-20
Approved for 2 more indications in India
- Type 2 diabetes
- NASH
and 2 indications in EM markets
- Hypertriglyceridemia
- Diabetic Dyslipidemia

Future milestone
Expected approval and launch for PBC in US

Future milestone
- Expected approval and launch for NASH in US

~2 Mn
Patient-years exposure in India

>70 Mn
Tablets sold in India so far

4
Indications approved so far

Reasonable period of IP protection

NASH medicines represent $35 Bn market by 2030

1 Source: Internal data
Zydus’ Innovation engine is fueled by centers of excellence...

Steady investments in R&D

<table>
<thead>
<tr>
<th>Year</th>
<th>R&amp;D Cost</th>
<th>% of net sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY16</td>
<td>7.6</td>
<td>8.2 In INR billion</td>
</tr>
<tr>
<td>FY17</td>
<td>7.5</td>
<td>8.1</td>
</tr>
<tr>
<td>FY18</td>
<td>8.6</td>
<td>7.4</td>
</tr>
<tr>
<td>FY19</td>
<td>9.4</td>
<td>7.4</td>
</tr>
<tr>
<td>FY20</td>
<td>11</td>
<td>7.9</td>
</tr>
</tbody>
</table>

1400+ Scientific Pool
NCEs & NBEs: Sustainable future growth drivers.

**NCEs Pipeline**

<table>
<thead>
<tr>
<th>Project</th>
<th>Target</th>
<th>Indication</th>
<th>Drug Discovery</th>
<th>Lead Optimization</th>
<th>Preclinical Dev.</th>
<th>IND</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>NDA</th>
<th>Marketed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desidustat</td>
<td>HIF-PH inhibitor</td>
<td>Anemia-CKD-ND/ D</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>COVID-19</td>
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<td></td>
<td></td>
<td>Chemo ind. anemia</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRC-3278/MMV 253</td>
<td>V-type H+ ATPase</td>
<td>Malaria (MMV)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ZYBK2</td>
<td>HLA-DRB1 shared epitope</td>
<td>RA</td>
<td></td>
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</tbody>
</table>

**NBEs Pipeline**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>TwinRab</td>
<td>Anti-Rabies Mab’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRC-NB-3224</td>
<td>AMD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRC-3297</td>
<td>Autoimmune</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRC-3298</td>
<td>Oncology</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADC 2</td>
<td>Oncology</td>
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<tr>
<td>ADC 3</td>
<td>Oncology</td>
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</tbody>
</table>
Zydus aims to be a global player in the evolving Biosimilars Space

Robust Infrastructure

- More than 18 years of experience in biosimilars development
- A key Growth Driver for the India & Emerging Markets Business

Product Portfolio & Addressable Opportunity

- A portfolio of 10+ commercial biosimilars in Indian Market

Leading Brands

- A team of 300+ scientists in R&D and Manufacturing

Global Biologics Market ~ $255 Bn

- Our Portfolio targets 21 products worth ~ $65 Bn Sales in 2019

- In last few years we have launched a number of leading biosimilar brands in the Indian market*
- These brands have catapulted us to leading position in therapy areas like oncology, rheumatology*

*Team Analysis, Internal Data

- One of the largest installed and running State-of-the-art biologics manufacturing plant in Asia for monoclonal antibodies*
- End to End biosimilar development capabilities
Zydus’ biosimilars pipeline targets 21 products worth ~ $65 Bn of brand sales value

<table>
<thead>
<tr>
<th>Drug</th>
<th>Sales 2019 (Brand)</th>
<th>Competitive Intensity¹</th>
<th>Zydus Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adalimumab</td>
<td>$ 19.17 B</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Trastuzumab</td>
<td>$ 6.08 B</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Pegfilgrastim</td>
<td>$ 3.5 B</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Bevacizumab</td>
<td>$ 7.12 B</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Peg-EPO</td>
<td>$ 1.12 M</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Denosumab</td>
<td>$ 5.05 B</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>TDM-1</td>
<td>$ 1.4 B</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Onco Segment</td>
<td>$ 3.54 B</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Opthal Segment</td>
<td>$ 7.99 B</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Onco Segment</td>
<td>$ 8.06 B</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Onco Segment</td>
<td>$ 1.49 B</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Respiratory Segment</td>
<td>$1 B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onco Segment</td>
<td>$ 2.99 B</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>GI Segment</td>
<td>$ 6.6 B</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Respiratory Segment</td>
<td>$ 704 M</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Auto Immune Segment</td>
<td>$ 3.43 B</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

¹Competitive Intensity High: >5 players; Medium: 2-5 Players; Low: <2 players; Team analysis

Biosimilars launched in Indian market

1. IFNα-2b
2. PEG-IFN
3. PTH
4. G-CSF
5. PEGG-CSF
6. EPO
7. Adalimumab
8. Trastuzumab
9. Bevacizumab
10. Rituximab
11. Peg-Asparagase
12. r-FSH

In portfolio and development initiated / Completed
In portfolio and development planned
Not in portfolio
Zydus is an emerging player in the Vaccine space (1/2)

20+ years
...of experience. started journey in 1998

Growth Driver
...major growth driver for India & Emerging markets

5
Manufacturing (3) and R&D (2) Facilities

300+
...dedicated scientists and Workforce

Current Strengths & Capabilities

- **R&D**: Robust Product Pipeline coming out of dedicated R&D facilities in India & Europe. 2nd company in the world to develop Typhoid conjugate vaccines
- Capabilities to conduct research from “Concept to First-in-man trials” under one roof across vaccines types
  - Live Attenuated
  - Inactivated
  - Sub-unit
  - Inactivate Toxins
  - Others

Portfolio

Global Vaccines Market
~ $60 Bn*

Our Portfolio targets 15 products worth
~ $14 Bn

*Team Analysis, Internal Data
Zydus is an emerging player in the Vaccine space (2/2)

Vaccine Market Size by 2026

- $60 Bn*
- Addressable Global Market
- $14 Bn
- 4 Products marketed in India

Portfolio of over 15 vaccines

**Zydus Vaccine Portfolio**

- **Pediatric vaccine**
  - DTP, Measles, MR, MMR, TCV, Varicella vaccine
- **Adult vaccine**
  - Flu, HPV vaccines
- **Tropical diseases**
  - Malaria and Chikungunya vaccines
- **Rabies Vaccine**
  - Rabies vaccine, TwinRab
- **Hepatitis vaccines**
  - Hep A, Hep B, Hep E Vaccines

**Addressable Market Opportunity** *

- **India Public Market**
  - ~ $ 70 M
- **India Private Market**
  - ~ $ 220 M
- **WHO Supplies**
  - ~ $ 1.5 B

*Team Analysis, Internal Data
Zydus’ vaccine for COVID-19 (ZyCoV-D): Rapid Discovery and Product Development with strong Clinical and Regulatory Expertise

COVID-19 Sequence Published

Zydus initiates fast-track discovery efforts using in-house DNA platform

Process & Formulation developed

ZyCoV-D Animal studies

Pivotal Trials - Large scale manufacturing being planned at-risk to deliver millions of doses in 2020-21

Jun 2020

Apr 2020

May 2020

July 2020

2020-21

Strong immune response in animals

Complete Neutralization of virus

No safety concerns

ZyCoV-D Phase 2 clinical trial ongoing
In India, Zydus has been pioneer in launching new products to meet the unmet needs.

<table>
<thead>
<tr>
<th>No of Products</th>
<th>Annualised value</th>
<th>Focus Therapy Area</th>
<th>IP Driven / FTI Opportunities</th>
<th>Day-1 Launches</th>
<th>Devices with Formulation</th>
<th>Differentiated Gx / PLC Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>#16</td>
<td></td>
<td>Respiratory, Cardio-Metabolic, Gynecology, GI, Anti-infective</td>
<td>#16</td>
<td>#28</td>
<td>#11</td>
<td>#24</td>
</tr>
<tr>
<td>#28</td>
<td>400+ Cr*</td>
<td>Cardio-Metabolic, Respiratory, Gynecology, Anti-infective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#11</td>
<td></td>
<td>Respiratory, Gynecology, Pain, GI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#24</td>
<td></td>
<td>GI, Pain, Anti-Infective, Respiratory, Gynae, Cardio-Metabolic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Process Innovation:
- Right Identification
- Agile Execution
- 1st Wave of Launch
Ongoing investments in product portfolio offers additional growth opportunities in US generics business over long term time-horizon

<table>
<thead>
<tr>
<th></th>
<th>Oral IR</th>
<th>Complex Generic</th>
<th>Injectable/Device Inj.</th>
<th>Topical/Transdermal/Nasal</th>
<th>Oncology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Under development</td>
<td>65</td>
<td>41</td>
<td>31</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Addressable Market Size (SM)</td>
<td>$35,064</td>
<td>$12,208</td>
<td>$18,099</td>
<td>$1,444</td>
<td>$12,004</td>
</tr>
<tr>
<td>Filing Target</td>
<td>To file over next 3-4 Years</td>
<td>To file by 2022</td>
<td>To file over next 3-4 Years</td>
<td>To file over next 3-4 Years</td>
<td>To file over next 3-4 Years</td>
</tr>
<tr>
<td>Products Approved/under approval</td>
<td>218</td>
<td>95</td>
<td>47</td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>Addressable Market Size (SM)</td>
<td>$71,015</td>
<td>$24,318</td>
<td>$5,293</td>
<td>$2,170</td>
<td>$16,414</td>
</tr>
<tr>
<td>Revenue generation to start from</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
In US, Zydus is developing a portfolio of complex generic injectable products, including drug device combination products.

**Zydus US Injectable Portfolio**

- **107 Products**
- **$28B Participative Market**

Well balanced portfolio with high value products across various stage of development, indicating the prospective business growth opportunity that lies ahead of us.

- **Regular**
  - Approved Products: 53
  - Filed products awaiting approval: 15
  - Under Development Products: 39

- **Complex**
  - Approved Products: 2
  - Filed products awaiting approval: 9
  - Under Development Products: 24

- **$2B** Approved Products
- **$6B** Filed products awaiting approval
- **$20B** Under Development Products

- **$2B** Avg. Market Size of approved products
- **$6B** Avg. Market Size of products awaiting approval
- **$20B** Avg. Market Size of under development products

Robust portfolio with a mix of Day-1 / 181, Me too, complex generics and niche product opportunities:

- ~10% Para-IV / FTF Products (Approved + Awaiting Approval) with addressable market size of $2 billion
- ~10% Para-III Products (Approved + Awaiting Approvals) with addressable market size of $4 billion
- ~80% Portfolio is of Launch upon approval, Me too, Technically challenging Para-II products with addressable market size of $3 billion
- 29 Oncology products in portfolio
Mid to Long term growth in US is planned through set of first to files & limited competition products

- **28 Products**
- **$36.8 bn** peak market sales
- **$840 mn** Potential additional upside value

**ZYDUS STATUS**
- In Development $227.6 41%
- Filed $332.3 59%

**ZYDUS ADVANTAGE**
- Limited Competition $379.5 68%
- FTF $180.5 32%

$560 mn Annual Value

Team Analysis, Internal Data; IQVIA
Future growth in US will be driven by developing branded product portfolio through 505b(2) Initiatives

9 Products Portfolio

Developing portfolio mix of in-house & LCM products addressing unmet need and aligned to focused therapy areas

1 Pre IND- 2 Products
Conducted 2 pre-IND meetings in April-June 2020 for:
- Product 1 Nasal Spray for Spasm
- Product 2 for Oncology

2 NDA- 1 Product
On track for NDA submission
- Product 1- Injectable (Pain Management)– Target filing in FY 2021

3 Orphan/CNS- 4 Products
Building Orphan Portfolio: 4 Product under development
- Product 1 for PBC: pIND / Orphan designation submitted
- Product 2 for Sickle cell anemia: pIND filing in Nov’20
- Product 3 for HRS: PoC study ongoing
- Product 4 for Myasthenia gravis: Prototype development ongoing

Source: Internal Team analysis
Zydus Wellness has consolidated its position in Wellness segment with integration of Heinz Portfolio

<table>
<thead>
<tr>
<th>Food</th>
<th>Skin Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant energy powder</td>
<td>Natural skin care</td>
</tr>
<tr>
<td>Health food drink</td>
<td>Prickly heat powder</td>
</tr>
<tr>
<td>Sugar substitute</td>
<td></td>
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<tr>
<td>Butter substitute</td>
<td></td>
</tr>
<tr>
<td>Premium healthy ghee</td>
<td></td>
</tr>
</tbody>
</table>

Zydus Wellness’ Brands dominates in 5 out of 7 category that it operates

1 Rank within category; 4 Sugar Free & Nutralite - All share source - National Company estimates; Complan H, Complan, Nycil, EY-Nielsen MAT March 20 report.

1 Sugar Free & Nutralite - All share source - Internal Company estimates; Glucon D, Complan, Nycil, EY-Nielsen MAT March 20 report.
At Zydus Wellness, we strive to reimagine wellness & health in a holistic manner with focus on - Nourish, Nurture and Energize your life

**New Launches- Innovation in Times of Covid**

<table>
<thead>
<tr>
<th>Product</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SugarFree Green</strong></td>
<td>• New formulation developed using a new, better tasting stevia</td>
</tr>
<tr>
<td></td>
<td>• Improved price proposition-200 spoons (equivalent to 1Kg sugar)now @Rs 165 v/s Rs 195 earlier</td>
</tr>
<tr>
<td>Nycil Hand Sanitizer</td>
<td>• Decision to execution within a fortnight</td>
</tr>
<tr>
<td>Complan Nutrigro</td>
<td>• Complan enters the toddler health food drink segment</td>
</tr>
<tr>
<td>Glucon D ImmunoVolt</td>
<td>• Tasty energy bites that boost immunity</td>
</tr>
<tr>
<td></td>
<td>• Contains Vitamin C, C, D, Zinc and Glucose</td>
</tr>
<tr>
<td>Complan Sachet</td>
<td>• Addressing the SKU portfolio gap in some parts of the country</td>
</tr>
<tr>
<td>Nutralite Choco Spread</td>
<td>• Initially launched through E-Commerce. Other channels to follow</td>
</tr>
</tbody>
</table>
Zydus has employed an INNOVATIVE solution to combat the pandemic of Covid-19

**Multi pronged approach to combat COVID-19**

<table>
<thead>
<tr>
<th>Diagnostic Products</th>
<th>Wellness Products</th>
<th>Prophylactic Vaccines</th>
<th>Therapeutic Products</th>
<th>NCE &amp; Biologicals</th>
<th>Immunity Booster Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launched Covid-KAVACH ELISA tests under the technology transfer from ICMR</td>
<td>We have preponed the launch of our sanitizer range under the Nycil brand which was originally planned for 2021</td>
<td>Our DNA Vaccine ZyCoV-D has undergone extensive pre-clinical studies and found to be safe, well tolerated and immunogenic</td>
<td>One of the largest producer of HCQ and Dexamethasone globally</td>
<td>Zydus explores Peg-Interferon alpha-2b and Desidustat to tackle coronavirus</td>
<td>Launched Cimune and Supermune Immuno-booster</td>
</tr>
<tr>
<td>This test was found to have high sensitivity and specificity &amp; also has the advantage of testing 90 samples together in a single run of 2.5 hours</td>
<td>We did this in a record time and it has provided a great impetus to overall Zydus Wellness portfolio</td>
<td>Phase II development underway</td>
<td>Launched Remdac (Remdesivir) in Indian at most affordable price (Rs. 2800 / vial)</td>
<td>Zydus received approval from COFEPRIS, Mexico to study Desidustat and to conduct clinical trials in Mexico with Pegylated Interferon alpha-2b in the management of COVID-19</td>
<td></td>
</tr>
</tbody>
</table>

ZyCoV-D

- Launched Covid-KAVACH ELISA tests under the technology transfer from ICMR
- This test was found to have high sensitivity and specificity & also has the advantage of testing 90 samples together in a single run of 2.5 hours
- We have preponed the launch of our sanitizer range under the Nycil brand which was originally planned for 2021
- We did this in a record time and it has provided a great impetus to overall Zydus Wellness portfolio
- Our DNA Vaccine ZyCoV-D has undergone extensive pre-clinical studies and found to be safe, well tolerated and immunogenic
- Phase II development underway
- One of the largest producer of HCQ and Dexamethasone globally
- Launched Remdac (Remdesivir) in Indian at most affordable price (Rs. 2800 / vial)
- Zydus explores Peg-Interferon alpha-2b and Desidustat to tackle coronavirus
- Zydus received approval from COFEPRIS, Mexico to study Desidustat and to conduct clinical trials in Mexico with Pegylated Interferon alpha-2b in the management of COVID-19
- Launched Cimune and Supermune Immuno-booster
Context

1. Why do we need Innovation?
2. Product Innovations at Zydus
3. Process Innovations at Zydus
4. Zydus : Current Stand
Zydus undertook digital initiatives as a process innovation to drive the execution & agility for new products

**Project PACE**

Planning and Collaboration Excellence (PACE)

An initiative to digitize end to end supply chain processes that include system generated sales forecasting with market consensus, manufacturing plan generation and simulation, inventory planning, production scheduling & prioritization, optimal utilization of manufacturing capacity & other resources.

**Project IRIS**

Integrated Real-time Information System (IRIS)

- Integrated Real-time Information System (IRIS) is a project management technology tool that provides real-time visibility in project milestones.
- It aims to create, update and track new product development and new product launch activities of different projects across various geographies.
- It provides management dashboards for tracking the status of various projects and the risks and costs associated with them.
Zydus is leapfrogging at digital space with comprehensive initiatives

Shift in stakeholder behavior due to recent events...

• 84% doctors adopted virtual consultations
• 63% will continue teleconsultations post lockdown as well

• ~68% doctors will curtail physical visits
• >50% find phone/video detailing ineffective – scope to innovate here

• ~70% doctors are willing & continue to engage with digital mediums

...driving digital innovation in our commercial model

Digital engagement with doctors through intuitive, easy & engaging platform to drive pull & stickiness

New 'Phygital' sales call to equip the field force and drive productivity

Patient connect to engage with patients and generate outcomes

Embedding “analytics” into decisions and way-of-working

Build capabilities to support the new operating model

Source: Future of work, BCG-IPA Perspective, April 2020
Most of our manufacturing processes and systems are completely innovated and managed digitally

**Paperless Engg**
- Management Metrics - Dashboard & Goal based
- One-Click Maintenance
- Ease to Use & Intuitive User Interface

**AR/VR Application**
- Remote guidance & assistance
- Surveying in Quality Control
- Training, Learning, Practice & Evaluation.

**Digital Energy Management**
- Performance & Analytic based operation with real time notification
- Online Monitoring of Chiller plant efficiency

**Factory Digital Dashboard**
- Real time Performance System for Utility management

**Digitization**
- Real time performance indicator
- Customizable dashboards for Users
- Operator Performance Analytics & Interactive Data exploration
Innovative approach in quality management.....

- **TrackWise**: Manage all QMS process in centralized database
- **ZyDMS**: Effective Monitoring
- **ZyTIMS**: Training Management Software
- **ZyARTS**: Artwork Management System
Context

1. Why do we need Innovation?
2. Product Innovations at Zydus
3. Process Innovations at Zydus
4. Zydus: Corporate Overview
Zydus – Business Overview

65+ years  
Business Excellence

$5.5 Bn¹  
Market Cap

~$146 Mn²  
R&D Spend in FY20

36  
Manufacturing Facilities

25000+  
Employees

Global Footprint

Sales Split (FY20)²

~$1.84 Bn  
Revenue

18% CAGR in revenues in 2 decades²

$1.84 Bn

$0.48 Bn

$0.1 Bn

FY 2000  
FY 2010  
FY 2020

US Formulations  
Wellness  
EMB Formulations  
Europe Formulations

India Formulations  
Animal Health  
API  
Alliances

¹ As on 21st August, 2020, $1 = USD 1 = INR 75. ² All spends and revenue figures at $1 = USD 1 = INR 75. Team Analysis, Internal Data
Zydus – Business Overview

Unlocking the Potential

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>EBITDA</th>
<th>Profit</th>
<th>EPS</th>
<th>Market Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY20</td>
<td>$1842 Mn</td>
<td>$371 Mn</td>
<td>$195 Mn</td>
<td>$0.19</td>
<td>$5.5 Bn²</td>
</tr>
<tr>
<td>FY05</td>
<td>$166 Mn</td>
<td>$30 Mn</td>
<td>$16 Mn</td>
<td>$0.24</td>
<td>$0.4 Bn³</td>
</tr>
</tbody>
</table>

Delivering what we promise

- Building strong foundation
- Establishing Leadership
- Global Expansion
- Sustainable growth

~$0.9 Bn¹
~$1.84 Bn¹

20%
Total shareholder return over 15 Years (CAGR)

18%
EBITDA growth over 15 Years (CAGR)

1  $1 = USD 1 = INR 75  2  As on 21st August 2020, $1 = USD 1 = INR 75  3  As on 31st March 2005, $1 = USD 1 = INR 75
Zydus Wellness: Poised for the next Big Leap

~30 years of Operational excellence

Trusted brands with a strong brand recall value

#1 in Sugar substitutes, Instant energy powder, Butter substitute and Skin Care

Science and Innovation led product portfolio

Wellness Financials

<table>
<thead>
<tr>
<th>Total income from Operations</th>
<th>CAGR</th>
<th>FY09</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>₹ Cr.</td>
<td>22.2%</td>
<td>1767</td>
<td>321</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>EBITDA</th>
<th>CAGR</th>
<th>FY09</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>₹ Cr.</td>
<td>21.2%</td>
<td>39</td>
<td>321</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PROFIT AFTER TAX</th>
<th>CAGR</th>
<th>FY09</th>
<th>FY20</th>
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</thead>
<tbody>
<tr>
<td>₹ Cr.</td>
<td>17.6%</td>
<td>142</td>
<td>9018</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKET CAP.</th>
<th>CAGR</th>
<th>FY09</th>
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<tbody>
<tr>
<td>₹ Cr.</td>
<td>39.7%</td>
<td>229</td>
<td>9018</td>
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</table>

Value accretive acquisition

Revenues for 12 months ended 30 June 2018

Heinz India

$70 Mn + $160 Mn = $230 Mn

Significant synergy potential in the combined business

- Omni channel strategy
- Increase access to rural markets
- Double the direct reach
- Enhance engagement with key accounts
- Benefit from wider talent pool and capabilities
- Revenue synergies
- Cost savings
Thank You
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