Suven
Life Sciences
A Treasure House of Innovations and Excellence
Company Overview

- Established in 1989
- Profitable and dividend paying since listing in 1995 on the NSE and BSE
- Established presence across Contract Research and Manufacturing Services (CRAMS) - Leader and Innovator for NCE based Intermediates
- Drug Discovery – Focused on CNS segment
- World-class infrastructure, equipment and models with over 800 employees
- Robust financials and a healthy balance sheet
- Formulation Development and Manufacturing Services
- USFDA inspected facilities
Of Pharmaceutical Relationship

CRAMS
• Leader and Innovator for many NCE based intermediates
• 600+ projects
• 380+ R&D professionals
• Generic API’s

DDDSS
• Leader in CNS based internal discovery in India
• State of the art facility, models
• Multiple big Pharma relationships

FORMULATIONS
• Pharmaceutical product development
• Product scale up and manufacturing services
• Pharmaceutical Analytical services
• Regulatory management services

Relationship with more than 22 global pharmaceutical companies
# Financials

<table>
<thead>
<tr>
<th>Year Ending March '31</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million (Rs)</td>
<td>Million (Rs)</td>
</tr>
<tr>
<td>Income</td>
<td>5,188.73</td>
<td>5,294.36</td>
</tr>
<tr>
<td>Pre-R&amp;D EBITDA</td>
<td>2,055.55</td>
<td>2,250.02</td>
</tr>
<tr>
<td>Pre-R&amp;D EBITDA Margin</td>
<td>39.62%</td>
<td>42.50%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,426.04</td>
<td>1,680.40</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>27.48%</td>
<td>31.74%</td>
</tr>
<tr>
<td>EBIT</td>
<td>1,258.83</td>
<td>1,562.64</td>
</tr>
<tr>
<td>EBIT Margin</td>
<td>24.26%</td>
<td>29.52%</td>
</tr>
<tr>
<td>Financing Costs</td>
<td>54.17</td>
<td>47.09</td>
</tr>
<tr>
<td>Taxes</td>
<td>254.98</td>
<td>428.04</td>
</tr>
<tr>
<td>Net Profit after tax</td>
<td>949.69</td>
<td>1,087.50</td>
</tr>
<tr>
<td>NP Margin</td>
<td>18.30%</td>
<td>20.54%</td>
</tr>
<tr>
<td>EPS (basic &amp; diluted not annualised)</td>
<td>7.46</td>
<td>9.04</td>
</tr>
<tr>
<td>Paid up Share Capital (One Rupee Share)</td>
<td>127.28</td>
<td>127.28</td>
</tr>
<tr>
<td>Depreciation</td>
<td>167.20</td>
<td>117.76</td>
</tr>
<tr>
<td>R&amp;D expenses</td>
<td>629.51</td>
<td>569.63</td>
</tr>
</tbody>
</table>
Formulation Development Centre
CAPABILITIES OVERVIEW

110,000+ sq. ft of World-class Infrastructure comprising

- Analytical Method Development & Validation Laboratories
- Dissolution Testing Laboratory
- Wet Chemistry Laboratory
- Microbiology Testing Laboratory
- Stability Chambers (220,000 L)
- Formulation Development Laboratories
- Process Development Laboratories
- Packaging Development and Testing Laboratories
- cGMP Scale-up, Manufacturing and Packing of Exhibit and Clinical Supply Batches
- Warehouse
Formulation Development Centre
- a Natural extension to the existing CRAMS Business

Formulation Development
NCE’s
ANDA’s
NDA’s (Differentiated Products)
OTC

Analytical Development
Method development
Method Validations
Impurity Profiling
RS Estimation
Microbiology
Stability Management

Manufacturing
Solid & Liquid Oral dosage forms
Topical Solutions
Generic/Branded Generic/OTC Product Development

- Literature Survey
- Identification of API Supplier
- Patent Review
- Quality and Characterization of API
- Analytical Development – API
- Product Development Strategy Evaluation
- Procurement of API / RM / PM / RLD
- Lab Scale Development
- Analytical Method Development
- Prototype Development
- Packaging Development
- Stability Studies
- Pilot BE supplies
- Development Report (QbD)
Generic/Branded Generic/OTC Product Manufacturing

- Technology Transfer Verification, Modifications & Adoption
- Scale up Batch Production /Modifications (Short Term Stability)
- Exhibit Batches Production
- Exhibit Batches Stability (Short Term & Long Term)
- Pivotal BE Supplies
- Compilation of Data for Regulatory Submission
- Satisfactory replies to Drug Agency w.r.t queries additional data generation/submission
- Validation, Commercial Production on Regulatory Approval
- Post Approval Stability Studies
Product Development
Solid Dosages

- Tablets: Immediate Release, Sustained Release, Delayed Release, Chewable, Orally Disintegrating (ODT) and Multilayered
- Capsules: Multi-particulates, Powders, Tablet in Capsule, Enteric Coating and Modified Release
- Powders: Immediate Release, Sustained Release, Delayed Release, Powders for Sachet or Suspension, Taste Masking and Effervescent Powders
- Multi particulates: Mini-tablets for Encapsulation, Pellets, Drug Layering, Immediate Release, Sustained Release, Delayed Release and Sachet or Capsule Filling
Oral Liquids

- Oral solutions, Syrups and Elixirs,...
- Oral suspensions
- Immediate Release and Powders for Suspensions
- Emulsions
Topicals

- Topical Liquids: Rx, OTC and Personal Care Products for Topical Administration
- Topical (Semisolids): Rx, OTC and Personal Care Creams, Gels and Ointments for Topical or Oral Administration (dentifrice)
- Ear Drops
- Sterile Ophthalmic Preparations
Injectables

- Terminal Sterilization
- Filtration
- Lyophilization
- Powder Filling
Process Development Capabilities - R&D

- High Shear Mixer Granulation (RMG)
- Fluid Bed Granulation (Top Spray)
- Roller Compaction & Slugging
- Tabletting (Conventional, Bilayer & Tablet in Tablet)
- Encapsulation (Powder, Pellet & Tablets or combination thereof)
- MUPS (Wurster & Extrusion-Spheronization)
- Solid Drug Layering
- Tablet coating – Film, Drug Layering, Functional & Sugar
- ODT/Chewable Tablets, Gastro Retentive Floating Tablets
- Microencapsulation in Gels
- Dry Powder/Mouth Melt Sachets
- Dry Powder Inhalers/ Multiple Dose DPIs
- Transdermal Patches
- Medicated Chewing Gum/ Lozenges
- High Potent and Oncology Formulations
Packaging Development

- Blister Packing
- Strip Packing
- Bottle Packing
- Bulk Packing
- Liquids Packing
- Ointments
# List of Equipments - R&D

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vibro Mechanical Sifter</td>
<td>12 inch</td>
</tr>
<tr>
<td>2</td>
<td>Double Cone Blender</td>
<td>2/5/20 lts</td>
</tr>
<tr>
<td>3</td>
<td>Rapid Mixer Granulator</td>
<td>3/5/10 lts</td>
</tr>
<tr>
<td>4</td>
<td>Fluid Bed Coater</td>
<td>3Lt</td>
</tr>
<tr>
<td>5</td>
<td>Tray Dryers</td>
<td>200/325 lts</td>
</tr>
<tr>
<td>6</td>
<td>Fluid Bed Processor</td>
<td>3 lit.</td>
</tr>
<tr>
<td>7</td>
<td>Fluid Bed Drier</td>
<td>5 lts</td>
</tr>
<tr>
<td>8</td>
<td>Spray Drier</td>
<td>5 lts</td>
</tr>
<tr>
<td>9</td>
<td>Oscillating Granulator</td>
<td>2Kg</td>
</tr>
<tr>
<td>10</td>
<td>Bilayer Compression M/C</td>
<td>5D / 5B</td>
</tr>
<tr>
<td>11</td>
<td>Octagonal Blender</td>
<td>5/20 lts</td>
</tr>
<tr>
<td>12</td>
<td>Mini Rotary Tablet Presses</td>
<td>8Station/10Station</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Core Coated Tablet Press</td>
<td>20 STN</td>
</tr>
<tr>
<td>14</td>
<td>Homogeniser (Silent Crusher)</td>
<td>0.8 to 2000 ml</td>
</tr>
<tr>
<td>15</td>
<td>Autocoater</td>
<td>500gm - 1 kg &amp; 3 kg - 5 kg</td>
</tr>
<tr>
<td>16</td>
<td>Automatic Mini Capsule Filling Machine</td>
<td>3000 Cap/Hr</td>
</tr>
<tr>
<td>17</td>
<td>Blister Packing Machine</td>
<td>20 blisters/Min</td>
</tr>
<tr>
<td>18</td>
<td>Lyophilizer</td>
<td>2 lit</td>
</tr>
<tr>
<td>19</td>
<td>Horizontal Laminar Air Flow Station</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Semiautomatic Vial, Ampoule and syringe Filling M/C</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Flexi Mil cum Micronizer</td>
<td>5-15 kg</td>
</tr>
<tr>
<td>22</td>
<td>Air Steam Class-ii Bio Hazard Safety Cabinet</td>
<td>1340<em>774</em>1360</td>
</tr>
<tr>
<td>23</td>
<td>Air Steam class-III Bio Hazard Safety Cabinet</td>
<td>1340<em>850</em>2250</td>
</tr>
</tbody>
</table>
Manufacturing Support

Dosage Forms
- Solid
- Liquid

Support
- Scale up Batches
- Exhibit Batches
- Validation & Commercial Batches
- Clinical Supplies
- BE/BA Supplies
Solid Dosages

- Tablets: Immediate Release, Sustained Release, Delayed Release, Chewable and Orally Dissolving
- Capsules: Powders, Multi-particulates and Tablets in Capsules
- Powders: Immediate Release, Sustained Release, Delayed Release, Powders for Sachet or Suspension & Taste Masking
- Multi particulates: Pellets & Mini-tablets for encapsulation
- Immediate release, Sustained Release, Delayed Release, Sachet or Capsule Filling
**Process Capabilities - Solids**

- Blending
- Sizing/Milling
- High Shear and Fluid Bed Granulation (aqueous or organic solvents)
- Tabletting
- Encapsulation
- Vacuum homogenization
- Tablet coating (aqueous and solvent)
- Multi-particulate and Powder Coating

- Controlled Release
- Solubility Enhancement
- High and Low Dose Potency
- Taste-Masking
- Orally Disintegrating and Chewable Tablets
- Packaging
  - Blisters, Strips, bottles,
  - Seamless collaboration with packaging partners for larger volumes, blinding
- Supply of clinical materials to domestic and international markets
Process Capabilities - Liquids

- Topical liquids:
  Rx, OTC, and Personal care products for topical administration
- Oral solutions
- Oral suspensions: Immediate Release and Powders for Suspension
# Manufacturing Equipment List

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Solid Dosage Form Module</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Multi Mill</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Vibro Mechanical sifter</td>
<td>600 mm dia</td>
</tr>
<tr>
<td>3</td>
<td>Rapid Mixer Granulator</td>
<td>75 &amp; 150 L</td>
</tr>
<tr>
<td>4</td>
<td>Fluid Bed Processor</td>
<td>35 &amp; 125 L</td>
</tr>
<tr>
<td>5</td>
<td>Double Cone Blender</td>
<td>50, 100 &amp; 200 L</td>
</tr>
<tr>
<td>6</td>
<td>Octagonal Blenders</td>
<td>100, 250 &amp; 1000 L</td>
</tr>
<tr>
<td>7</td>
<td>Roller Compactor with OG</td>
<td>2 &amp; 3 kg</td>
</tr>
<tr>
<td>8</td>
<td>Tablet Compression Machine</td>
<td>15 Station</td>
</tr>
<tr>
<td>9</td>
<td>Metal Detection unit</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Autocoater</td>
<td>12-20 kg / 45-75 kg</td>
</tr>
<tr>
<td>11</td>
<td>Dedusting M/c</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Tablet printing machine</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Tablet &amp; Capsule visual inspection machine</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Blister Packing machine</td>
<td>25 cycles/min</td>
</tr>
<tr>
<td>15</td>
<td>Airjet washing M/c</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Tablet/capsule Counter</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Semi Automatic Capping Machine</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Induction Sealer</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Liquid Dosage Form Module</strong></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Semi Automatic self-adhesive labeling machine</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Automatic Capsule Filling Machine</td>
<td>25000 Cap/Hr</td>
</tr>
<tr>
<td>21</td>
<td>Empty Capsule Sorter</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Dedusting and Polishing Machine</td>
<td>NA</td>
</tr>
<tr>
<td>23</td>
<td>Premixing Tank</td>
<td>1000 L</td>
</tr>
<tr>
<td>24</td>
<td>Mixing Tank</td>
<td>2000 L</td>
</tr>
<tr>
<td>25</td>
<td>Holding Tank</td>
<td>2000 L</td>
</tr>
<tr>
<td>26</td>
<td>Filtration Unit</td>
<td>0.2 Micron</td>
</tr>
<tr>
<td>27</td>
<td>Bottle Cleaning M/C</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Caps Cleaning M/C</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Bottle Filling M/C</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Screw Capping m/C</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Induction Sealer</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Purified Water Generation System</td>
<td>250 L/Hr</td>
</tr>
</tbody>
</table>
LIQUID ORAL FACILITY

Premixing Tank 1000L

2000L Mixing Tank and 2000L Holding Tank
Analytical Services/ Stability
Analytical Method Development, Validation and Testing

- Our fully equipped GLP Analytical Laboratory is well suited for Drug Product Analytical Method Development, Validation and Analysis to support R&D, Exhibit, Clinical, Validation and Commercial activities.

- Our Microbiology Lab is equipped to carry out Method Development and Validations/Verifications of Preservative Efficacy, Sterility, Microbial Limit and Bacterial Endotoxins.
Pre-formulation Studies

- Excipient Compatibility Studies
- Calorimetry by DSC
- Forced-Degradation Studies
- Solubility Determination
- Bulk Powder Characterization
Method Development and Validations

- Assay
- Related Substances
- Chiral Purity

Dissolution

- USP Apparatus I
- USP Apparatus II

Cleaning Verification

- Compound Specific Method
- Total Organic Carbon (TOC)
ANALYTICAL SERVICES

MICROBIOLOGY LABORATORY INSTRUMENTS

- Horizontal Laminar Air Flow Benches (2 No's)
- Incubators (2000 liters)
- Cooling Incubator 2-8 °C (400 liters)
- Autoclave
- Colony Counter
- Carl Zeissis Microscope
• Walk-in Stability Chambers of 2,20,000 liters Capacity (10 numbers)

• Centralized data acquisition for monitoring and trending Temperature and Humidity 24/7.

• Stability Studies meeting the ICH Guidelines and any customer specific requirements.
ICH Stability Storage and Testing

- 40°C/75% RH
- 30°C/65% RH
- 30°C/75% RH
- 25°C/60% RH
- 5°C
- Photo Stability
- Flexible Conditions
# Analytical Instrumentation

<table>
<thead>
<tr>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inductively coupled plasma mass spectroscopy (ICP-MS)</td>
</tr>
<tr>
<td>HPLCs (DAD, UV &amp; RI)</td>
</tr>
<tr>
<td>UPLC (DAD &amp; UV)</td>
</tr>
<tr>
<td>RRLC (DAD)</td>
</tr>
<tr>
<td>GC-HS</td>
</tr>
<tr>
<td>LCMS</td>
</tr>
<tr>
<td>Polari meter</td>
</tr>
<tr>
<td>FTIR</td>
</tr>
<tr>
<td>Particle Size Analyzer (Sympatec)</td>
</tr>
<tr>
<td>Dissolution Tester - Auto Sampler</td>
</tr>
<tr>
<td>UV-Vis Spectrophotometer</td>
</tr>
<tr>
<td>Disintegration Tester</td>
</tr>
<tr>
<td>BIO-DIS Dissolution Apparatus (USP Type III / Reciprocating Cylinders)</td>
</tr>
</tbody>
</table>
Collaboration - Partnership

WE BUILD

Customer Focus
Speed
Flexibility
Transparency
Integrity
Passion

Quality
Value
On Time
Contact Details

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Medak District - 502 307,
Telangana, India
Tel.: +91-8455-326020,6021
Thank You