OPX Biotechnologies Inc.
The Leading EDGE™ Renewable Chemical Business

BIO Pac Rim Conference
Vancouver BC Canada
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President and CEO
Strategy

Grow a Large, Global, Profitable & Highly Valued Renewable Chemicals Company

**Renewable Chemicals**
- Portfolio of direct replacement chemicals
- Penetrate multi-billion dollar existing markets

**Leading EDGE Technology**
- Rapid, development of efficient bio-processes
- Build broad product portfolio faster

**Strategic Development Partners**
- Leveraging partner capital & capabilities
- Achieve commercial faster with less investment

**Commercial Joint Ventures**
- Leveraging partner capital & capabilities
- Capture higher value for OPXBIO

Grow a Large, Global, Profitable & Highly Valued Renewable Chemicals Company
Renewable BioAcrylic

$10 Billion Global Market Opportunity
Direct replacement with the same properties and performance
Dow Chemical
Strategic Partner – BioAcrylic

- Largest US producer of petro-acrylic and derivatives
  - Committed bio-based strategy and investments
- BioAcrylic joint development agreement
  - Joint funding and work to demonstrate BioAcrylic process
  - Intent to jointly commercialize

Sugar Feedstock → Microbe & 3-HP Bioprocess → BioAA Conversion Process → Commercial Plant → Channel to Market

Dow → OPX BIO → Dow → Joint → Dow
BioAcrylic Development Plan
Scale-Up and Commercialization

Current at MBI

Comml Plant
5X750k L
100M Lbs/Yr

Demo Plant-2
30k L
600K Lbs/Yr

Demo Plant-1
3000L
60K Lbs/Yr

Pilot
250L
5K Lbs/Yr

Lab
Shake Flask
100 ml

Pilot
Lg Bench
10L
250 Lbs/Yr

Pilot
Sm Bench
1L
25 Lbs/Yr

Commercial

2008

2009

2009-10

2010

2011-12

2012

2015
New Products & Markets
Leveraging BioAcrylic Success

Sugar or CO2 + H2 → 3-HP → BioAcrylic

- Acrylamide: $3B
- Fatty Acids: $10B
- Diesel & Jet Fuel: $10B
- >$500B
Growth Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Team</th>
<th>Technology</th>
<th>Partners</th>
<th>Scale-up</th>
<th>Financing</th>
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<tbody>
<tr>
<td>2007</td>
<td>OPXBIO Inc. 7May07</td>
<td>3HP Strains Developed</td>
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<td>$1M Seed</td>
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<td>2008</td>
<td>Team 20 People</td>
<td>3HP Strains Optimized</td>
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<td>BioAA 1 &amp; 10L Pilot</td>
<td>$4M A Round</td>
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<td>2009</td>
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<td>Key Patents Granted</td>
<td>DOE ARPA-E Award</td>
<td>BioAA 250L Pilot</td>
<td>$17M B Round</td>
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<td>2010</td>
<td>Team 50 People</td>
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<td>Dow Chemical BioAA JDA</td>
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<td>2011</td>
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<td>BioAA 3KL Demo</td>
<td>BioAA 30KL Demo</td>
<td>$41M C Round</td>
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<td>2012</td>
<td>Team 70 People</td>
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<td>1st BioAA Commil Plant</td>
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<td>2013</td>
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