Welcome
Dan Hampu, Project Manager
University of Akron Research Foundation
Agenda

11:45 am       Lunch
12:00 – 12:05 pm  Welcome
12:05 – 1:05 pm  Q&A with Successful Entrepreneurs and Innovators
1:05 – 1:15 pm  Funding Sources: Innovation Practice Center, I-Corps Teams, and Ohio Third Frontier TVSF
1:15 – 1:30 pm  Logistics
1:30 – 1:50 pm  Team Value Proposition Pitches
Q&A with Successful Entrepreneurs & Innovators

John Lauletta – President, Exacter
Ray Lewis – Director of Operations, Wastebits
Thom Olmstead – CEO, Akron Surface Technologies Inc.
Tim Madden – President & COO, CEA Capital Holdings
Grayson Alexy – President, Chardon Tool
Scott Meier – Design, Wastebits; Tomtod
Mark Siwik – President & CEO, Belikecoach
Moderator: Wayne Watkins – Associate VP for Research
Funding Sources: Innovation Practice Center, I-Corps Teams & Ohio Third Frontier TVSF

Dan Hampu, Project Manager
University of Akron Research Foundation
UA Innovation Practice Center
Innovation Practice Center (IPC)

- Created through UA Achieving Distinction program
- Proof-of-Concept funding to technology focused Innovation Teams
  - Evaluation focused on Team, Market Potential, Time to Market, Technology, etc.
Innovation Practice Center (IPC)

- Award amount: TBD (but likely up to $25,000)
- Project period: 4 to 6 months
- Frequency: TBD
- Restricted to UA technology portfolio
NSF I-Corps Teams
I-Corps Teams

- National Science Foundation
- Award amount: $50,000
- Project period: 6 months
- Frequency: quarterly
I-Corps Teams

- Restrictions
  - NSF lineage – I-Corps Sites counts
  - Must participate in 6-week intensive training

- More than doubles likelihood of winning SBIR/STTR

- Next due date 6/15/2014
I-Corps Teams Process

- Submit 1-page “executive summary”
- Conversation with Program Officer
- Proposal with 6-page narrative
- I-Corps course
  - 3-day intensive training
  - 6-weeks customer contacts with regular check-ins from program officers
  - 2-day summit to present findings
Ohio Third Frontier Technology Validation & Startup Fund (TVSF)
Ohio Third Frontier TVSF

- Ohio Department of Development
- Award amount: $50,000
  - 1:1 cost match required
- Project period: 1 year
- Frequency: 2-3 RFPs issued per year
Ohio Third Frontier TVSF

- Restrictions
  - Specific technology areas
  - Technology not previously licensed
  - 1:1 cost match
  - Only 6 submissions per university

- Phase 2 award ($100,000) for start-ups
- Next due date 4/15/2014 or 8/15/2014
Logistics
Dan Hampu, Project Manager
University of Akron Research Foundation
Week 5 Deliverables

- Customer Interview Form completed for 5 customer contacts (total of 10)
- Competitive Products Form
- Updated Business Model Canvas

Remember:
- All forms are available at www.uakron.edu/icorps
- Complete forms digitally and submit via email to NSFICorpsSites@uakron.edu by 5:00 pm Thurs.
  - Email Subject Line must include team number (SP14-0###)
# Competitive Products Form

## Understanding Competitors
Identify competitors and their products. List the competitive product’s features and then differentiate how your product has an advantage over the existing product or how it is an improvement on the existing competition.

Refer to Steve Blank’s Lesson 1.5B: Business Models and Customer Development to revisit market opportunity.

<table>
<thead>
<tr>
<th>Competitor</th>
<th>Product Type</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>J&amp;J Ethicon</td>
<td>Wound Adhesive</td>
<td>Dermabond</td>
</tr>
</tbody>
</table>

**Product Features:**
- Current gold standard for wound closure adhesive
- Some flexibility
- Biocompatible for external use

**How does your product compare to this? What makes your product better or different?**
- More flexible
- More viscous (hypothesis that it is easier to apply)
- Biocompatible with potential for internal use

<table>
<thead>
<tr>
<th>Competitor</th>
<th>Product Type</th>
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</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Product Features:**

**How does your product compare to this? What makes your product better or different?**

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<tbody>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Product Features:**

**How does your product compare to this? What makes your product better or different?**
Week 6 Deliverables

- Customer Interview Form completed for 5 more customer contacts (total of 15)
- One-paragraph summary of Value Prop
- 5-minute business model presentation, which will include your final revised business model canvas

Remember:
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Team Presentations

- 5 slides, 5 minutes
  1. Brief description of team, technology and value proposition
  2. Business model canvas from first day of course
  3. Customers / customer segments your team visited
  4. What you learned from customers / customer “pain points”
  5. Final business model canvas highlighting revised value proposition and customer relationships
Sample Presentation Slides

Courtesy of Akron Ascent Innovations
Adhesives from aligned electrospun fibers

September 23, 2013

Team

Barry Rosenbaum (CEO)
Prof. Josh Wong (CTO)
Elyse Ball (CFO, Attorney)
Kit Nartetamrongsutt Post-Doctoral Fellows
Fu Yu

Our Technology Platform

Bio-Inspired

Fibrous Dry Electrospun Adhesives
Business Model Canvas V 1.0 (Day 0)

**Key Partners**
- UARF
- Machinery Companies
- Process & Product Development (Chemsultan)
- Ohio Aerospace Institute??

**Key Activities**
- Technical research
- Product Development
- Product testing
- Find customers
- Customer feedbacks
- Market & Economic Analysis

**Key Resources**
- Finance
  - SBIR grant
  - Venture fund
- Physical
  - UA facilities
  - Materials
- Intellectual
  - Patent
- Human
  - Researchers & Scientists

**Value Propositions**
- New Technology Platform
- Electrospun adhesive
  - Dry adhesive
  - One sided
  - Two sided

**Customer Relationships**
- Technology service
- Technology troubleshooting
- Product development
- Product customization

**Channels**
- Licensing Agreement
- Contract Manufacturing
- Direct sales
- Direct: online, local, delivery
- Wholesale: Contract

**Customer Segments**
- Adhesive producers
- Adhesive users

**Cost Structure**
- Production
  - Fixed cost
    - Salaries
  - Varied cost
    - Material cost
    - Equipment
- Business
  - Fixed cost
    - Rent
  - Varied cost
    - Business trip cost

**Revenue Streams**
- Direct adhesives sell through channels
- Technology licensing
- Product development research fund
Customer segments

- Customer segments analysis (20 customer visited)

<table>
<thead>
<tr>
<th>Adhesive producers</th>
<th>Industrial consultants</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAP</td>
<td>Medical/health care</td>
</tr>
<tr>
<td>Franklin</td>
<td>Adhesive Industries</td>
</tr>
<tr>
<td>ELMER’S</td>
<td></td>
</tr>
<tr>
<td>Henkel</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adhesive users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive/Electrical</td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>Aerospace</td>
</tr>
<tr>
<td>Medical</td>
</tr>
<tr>
<td>Multi-business</td>
</tr>
</tbody>
</table>

- Film/label
- Electrosun nonwoven
### What we learned

- **Pain points for each segment**

<table>
<thead>
<tr>
<th>Adhesive producers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pain points</strong></td>
</tr>
<tr>
<td>- Poor adhesion to certain substrates (plastics, brick, painted wall).</td>
</tr>
<tr>
<td>- Liquid glue is messy and causes long drying process.</td>
</tr>
<tr>
<td>- Cannot be reusable.</td>
</tr>
<tr>
<td>- Leaves residue when removed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adhesive users</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pain points (Automotive/Electronics)</strong></td>
</tr>
<tr>
<td>- Thickness of liquid glue is hard to control.</td>
</tr>
<tr>
<td>- Hard to robotically operate.</td>
</tr>
<tr>
<td>- Long curing time.</td>
</tr>
<tr>
<td><strong>Current dry adhesives are expensive.</strong></td>
</tr>
<tr>
<td><strong>Pain points (Aerospace)</strong></td>
</tr>
<tr>
<td>- Thermal/UV resistance for outdoor uses.</td>
</tr>
<tr>
<td>- Thickness and weight cause reduce fuel efficiency.</td>
</tr>
<tr>
<td>- Can’t remove or reposition.</td>
</tr>
<tr>
<td>- High cost of installation.</td>
</tr>
<tr>
<td><strong>Pain points (Film/label)</strong></td>
</tr>
<tr>
<td>- Thermal/ UV resistance for outdoor uses.</td>
</tr>
<tr>
<td>- Thickness and weight are too high.</td>
</tr>
<tr>
<td>- Can’t remove or reposition film.</td>
</tr>
<tr>
<td><strong>Pain points (Consumer)</strong></td>
</tr>
<tr>
<td>- Adhesion to multiple substrates</td>
</tr>
<tr>
<td>- Easy removal</td>
</tr>
<tr>
<td>- Reusable</td>
</tr>
<tr>
<td><strong>Pain points (Medical)</strong></td>
</tr>
<tr>
<td>- Not biocompatible</td>
</tr>
<tr>
<td>- Ease of removal of adhesive to skin</td>
</tr>
<tr>
<td><strong>Pain points (Nonwoven)</strong></td>
</tr>
<tr>
<td>- Stick to woven surface</td>
</tr>
<tr>
<td>- Easy removal</td>
</tr>
</tbody>
</table>
**Business Model Canvas V 1.4 (Day 28)**

**Key Partners**
- Machinery Company
- University of Akron Research Foundation
- OAI Ohio Aerospace Institute
- Chemconsultants International

**Key Activities**
- Technical research
- Product Development
- Product testing
- Find customers
- Customer feedbacks
- Market & Economic Analysis

**Value Propositions**

**Adhesive producers**
- New Technology
- Dry adhesive products
  - Reusable and repositionable
  - Stick to most surfaces
  - No VOC’s, No liquid, No odor

**Customer Relationships**
- Technology services
- Technology troubleshoot
- Product dev. and customization
- Product dev. And customization
- Technology information services

**Customer Segments**
- Henkel
- ELMER’S
- Franklin Adhesives & Polymers
- DAP
- Henkel
- ELMER’S
- Franklin Adhesives & Polymers
- DAP

**Channels**
- Direct: Local, delivery
- Wholesale: Contract
- Direct: online, local, delivery
- Wholesale: Contract

**Cost Structure**
- Production
  - Fixed cost
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**Revenue Streams**
- Direct adhesives sell through channels
- Technology licensing
- Product development research fund
Value Proposition Pitches

I-Corps Sites Entrepreneurial Leads
Team 16
Rapid Identification of Microbes in Soil

- Warren Dick— Academic Lead
- Aditi Sengupta — Entrepreneurial Lead
- Shauna Brummet — Mentor
Team 15
High-Throughput Microalgae Screening

- Peter Ling — Academic Lead
- Siam Racharaks — Entrepreneurial Lead
- Shauna Brummet — Mentor
Team 14
Hypoallergenic Natural Rubber Latex

- Katrina Cornish — Academic Lead
- Jessica Lauren Slutzky — Entrepreneurial Lead
- Allyson Dewell — Entrepreneurial Lead
- Bob Chalfant — Mentor
Team 13
Real-Time Toxic Water Containment Sensor

- Chelsea Monty — Academic Lead
- Bradford Vielhaber — Entrepreneurial Lead
- Wil Hemker — Mentor
Team 12
Permanent Magnet Assist
Synchronous Reluctance Motor

- Seungdeog Choi — Academic Lead
- Sai Sudheer Reddy Bonthu — Entrepreneurial Lead
- Garrett Dowd — Entrepreneurial Lead
- Howard Hubert — Mentor
Instructional App to Track Student Performance

- Douglas Hicks — Academic Lead
- Dhvanit Poduval — Entrepreneurial Lead
- Annal Vyas — Mentor
Team 9
Synthesis of Polymers from Plant-Based Oils

- Coleen Pugh — Academic Lead
- Brinda Mehta — Entrepreneurial Lead
- Clifton Young — Entrepreneurial Lead
- Paula Watt — Mentor
Team 8
Fluorescence Goggles for Medical Interventions

- Yang Liu — Academic Lead
- Christopher Mela — Entrepreneurial Lead
- Alex Naragon — Entrepreneurial Lead
- Elliot Reed — Mentor
Team 7
Singing Accuracy App

- Bryan Nichols — Academic Lead
- Dhvanit Poduval — Entrepreneurial Lead
- James Adams — Entrepreneurial Lead
- Patrick Hofford — Mentor
Team 6
Vorticity Confinement to Better Predict Aerodynamic Drag

- Alex Povitsky — Academic Lead
- Kristopher Pierson — Entrepreneurial Lead
- Van Duc Ngo — Entrepreneurial Lead
- Brent Hartman — Mentor
Team 5

OXAID: Oxygenated Hydrogels for Wound Healing

- Nic Leipzig — Academic Lead
- Pritam Patil — Entrepreneurial Lead
- Megan Jeffords — Entrepreneurial Lead
- Drew Barnholtz — Mentor
Team 4
Membrane Separator for Lithium Battery

- Mukerrem Cakmak — Academic Lead
- Fanhui Jiang — Entrepreneurial Lead
- Michael Adding — Entrepreneurial Lead
- Barry Rosenbaum — Mentor
Team 3
Glaucoma Detection System

- Rouzbeh Amini — Academic Lead
- Anup Dev Pant — Entrepreneurial Lead
- Fehmida Kapadia — Mentor
Team I
High Performance Transparent Electrode

- Yu Zhu — Academic Lead
- Tianda He — Entrepreneurial Lead
- Victoria Scarborough — Mentor
Upcoming Deliverables

- **By Thursday 4/17**
  - Competitive Products Form
  - Customer Interview Form completed for 5 customer contacts
  - Revised Business Model Canvas

- **By Thursday 4/24**
  - One-paragraph summary of Value Proposition
  - Customer Interview Form completed for 5 more customer contacts
  - 5-minute presentation
    - Includes final updated Business Model Canvas