TOPIC: UM Ventures Annual Report (information item)

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: June 18, 2013

SUMMARY: Through collaborative leadership between the University of Maryland, Baltimore and College Park, UM Ventures is bringing innovative products to market, expanding collaborations with industry, and creating new jobs in Maryland by integrating the commercialization and entrepreneurial programs of the two powerhouse universities. The Committee will be provided a report on progress in key areas at UM Ventures.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR’S RECOMMENDATION: This item is for information purposes.

COMMITTEE RECOMMENDATION: DATE:

BOARD ACTION: DATE:

SUBMITTED BY: Joseph F. Vivona (301) 445-2783
Goals

- Commercialize discoveries
- Create economic impact
- Generate financial returns
- Recruit and retain entrepreneurial faculty
- Recruit and educate entrepreneurial students
Initial Priorities

- Collaboration
  - Entrepreneurial Offices
  - Faculty
- Transactions
  - Licensing
  - Startups
- Resources/Capacity
Collaboration: Faculty

**UMCP**
- Energy
- Environmental Engineering
- Information Technology
- Nanotechnology

**UMB**
- Medical Devices
- Bio Engineering
- Health/Bio Informatics

- Therapeutics
- Vaccines
- Diagnostics
**Licensing**

### Invention Disclosures

- **UMCP**
- **UMB**

- FY11: 200
- FY12: 250
- FY13*: 275

### Licenses

- FY11: 30
- FY12: 35
- FY13*: 40

*Projected*
<table>
<thead>
<tr>
<th>Device</th>
<th>Inventors</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental application of coherence gate Doppler</td>
<td>Cha-Min Tang (Medicine), Yu Chen (Engineering), Ashraf Fouad (Dentistry)</td>
<td>$125,000</td>
</tr>
<tr>
<td>Development and testing of protocols for scour sensing post deployment</td>
<td>Norman Wereley (Engineering)</td>
<td>$100,000</td>
</tr>
<tr>
<td>Hemostatic Bandages Based on a New Biocompatible Polymer</td>
<td>Srinivasa Raghavan (Engineering), Mayur Narayan (Medicine)</td>
<td>$125,000</td>
</tr>
<tr>
<td>Commercial Development of a Vaccine Against Staphylococcus aureus</td>
<td>Mark Shirtliff (Dentistry)</td>
<td>$100,000</td>
</tr>
<tr>
<td>Low Cost, High Performance, Polymer-Based Ultra-Miniature Fiber Optic Pressure Sensors</td>
<td>Mia Yu</td>
<td>$100,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$550,000</td>
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IP-based Start-ups

*Projected
- Three-year, $3.75 million NSF award to create an I-CORPS regional node, one of five in the US.
- Led by Dean Chang, University of Maryland, in collaboration with George Washington University and Virginia Tech
- Intensive seven-week program to help student and faculty entrepreneurs bring their discoveries to market.
- 100 entrepreneurial teams per year:
  - 50 National teams will be brought to the region.
  - 150 teams from the Mid-Atlantic
- Create M-CORPS
## MII: Start-ups

<table>
<thead>
<tr>
<th>Device</th>
<th>Inventors</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ink-jet printed sensors for authentication and trace contaminant detection</td>
<td>Diagnostic anSERS Eric Hoppmann (Engineering)</td>
<td>$100,000</td>
</tr>
<tr>
<td>Treatment of Otitis without Ear Drum Puncture</td>
<td>Otomagnetics – Ben Shapiro (Engineering)</td>
<td>$100,000</td>
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<tr>
<td>Advanced Molecular Modeling Software to Enhance Drug Discovery</td>
<td>SilcsBio LLC Alex MacKerell (Pharmacy)</td>
<td>$99,556</td>
</tr>
<tr>
<td>Source Code Recovery from Executable Code for Cyber-Security Applications</td>
<td>SecondWrite Rajeev Barua (Engineering)</td>
<td>$100,000</td>
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<tr>
<td>Real-Time Polling Application</td>
<td>React Labs, Philip Resnik (Linguistics)</td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$499,556</strong></td>
</tr>
</tbody>
</table>
Start-up Assistance

- Assist and track start-ups for first two years
  - Small Business Technology Development Centers
  - Dingman Center
  - Mtech
  - Tech Transfer Offices
  - BHI Entrepreneur in Residence
FY13 Highlights: Start-ups

- A&G Pharmaceutical (Columbia) $300,000 grant from Avon Foundation
- Alba Therapeutics (Baltimore) 340 patients in Phase 2 Clinical Trial
- Diagnostic anSERS (College Park) $175,000 in awards
- FlexEl (College Park) $6 Million in industry funding
- Gliknik (Baltimore) $4.9 million venture capital
- Immotions Medical (Baltimore) relocates to Maryland
- OmniSpeech (College Park) $2.8 Million in grants
- Remedium (Baltimore) $700,000 in grants
- Remedy Pharmaceuticals (NYC) $3.7 million in Venture Capital and begins Phase 2 Clinical Trial
- Tokai Pharmaceuticals (Boston) $33.5 million and begins Phase 2 Clinical Trial
• Approximately $1.8 million in new funding
  – 8 licensing officers
  – Patent budget
  – 2 Venture Accelerator staff
  – M-CORPS
  – Proof-of-Concept Funding
  – Seed Equity Funding
FY14 - Initiatives

• Building capacity
• Venture Capital
• Innovation Centers
  – College Park
  – Baltimore
  – Shady Grove