TOPIC: Strategies for Enhancing Private Industry Sponsored Research

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: March 29, 2012

SUMMARY: At a previous committee meeting, the Committee requested presentations from the USM research institutions on strategies for enhancing private industry sponsored research. The vice presidents for research from the USM research institutions will discuss the issues and strategies related to industry sponsored research.

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

FISCAL IMPACT: This item is for discussion purposes.

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

COMMITTEE RECOMMENDATION: DATE:

BOARD ACTION: DATE:

SUBMITTED BY: Joseph F. Vivona (301) 445-2783
Industry Sponsored Research

• Current Activity
• Contractual Issues
  – Penn State Initiative
• Core Issues/Strategies
  – Culture/Incentives
  – Training
  – Marketing
  – Performance
Benefits

• Diversify funding, offsetting decreases in federal and state funding

• Increase translational research
  - Federal funding emphasizes more basic research

• Facilitate other relationships with corporations
  - Tech transfer, philanthropy

• Provide opportunities for students seeking careers in industry

• Build support in Maryland business community for USM institutions
In FY11, 189 companies sponsored 375 projects at UMB totaling $35 million

**Top 20 Industry Sponsors in FY 2011**

<table>
<thead>
<tr>
<th>Company</th>
<th>Amount</th>
<th>Company</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeolus Pharmaceuticals</td>
<td>3,569,526</td>
<td>Merck &amp; Co. Inc.</td>
<td>466,810</td>
</tr>
<tr>
<td>Novartis</td>
<td>1,523,592</td>
<td>Sanofi-Aventis</td>
<td>443,703</td>
</tr>
<tr>
<td>Pfizer</td>
<td>1,112,808</td>
<td>Beckman Coulter</td>
<td>443,250</td>
</tr>
<tr>
<td>Westat Incorporated</td>
<td>1,015,620</td>
<td>Jarvik Heart</td>
<td>410,236</td>
</tr>
<tr>
<td>Bayer HealthCare</td>
<td>931,552</td>
<td>SAFE bt, Inc.</td>
<td>391,399</td>
</tr>
<tr>
<td>GlaxoSmithKline</td>
<td>904,614</td>
<td>CircuLite</td>
<td>381,258</td>
</tr>
<tr>
<td>Wyeth Pharmaceuticals</td>
<td>878,972</td>
<td>Gliknik</td>
<td>375,755</td>
</tr>
<tr>
<td>SAIC-Frederick, Inc.</td>
<td>693,527</td>
<td>Sigmovir Biosystems</td>
<td>369,281</td>
</tr>
<tr>
<td>Evolva SA</td>
<td>617,321</td>
<td>Actelion</td>
<td>336,838</td>
</tr>
<tr>
<td>Intuitive Surgical Operations</td>
<td>481,136</td>
<td>Philips HealthCare</td>
<td>329,710</td>
</tr>
</tbody>
</table>
Contracts

• Standard Research Agreement Templates for all USM Institutions
  • Intellectual Property ownership
  • Publication
  • Export Controls
  • Indemnification

• Extend single-Institution Master Agreements to all USM Institutions

• Master Inter-Institutional Agreements for Technology Transfer

• Tax-exempt Bond Issue
Challenges

<table>
<thead>
<tr>
<th>Federal Funding</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher-driven scope</td>
<td>Industry-driven scope</td>
</tr>
<tr>
<td>Multi-year term</td>
<td>1 year-term (average)</td>
</tr>
<tr>
<td>$250,000 per year</td>
<td>$40,000 (average)</td>
</tr>
<tr>
<td>Standard process</td>
<td>Highly variable</td>
</tr>
<tr>
<td>Dependent on Federal Agency budget</td>
<td>Dependent on economic cycle</td>
</tr>
<tr>
<td></td>
<td>Credit Risk</td>
</tr>
</tbody>
</table>

Industry funding is rarely counted in ranking universities

e.g.; US News and World Report – Top Research Medical Schools
-30% of ranking based on NIH Funding, no value for industry funding
Core Issues

• Incentivizing Faculty, Departments, Schools
  ▪ APT/Appointment Letters
  ▪ Center/Department Goals
  ▪ Concern – how do we evaluate quality of the work?

• Training Faculty and Staff

• Marketing
  ▪ Joint effort – Shady Grove Office
  ▪ Research Park and Incubator Companies
  ▪ Leading Maryland Technology Companies
Core Issues

• Performance
  ▪ Quality Assurance/Quality Control
  ▪ Timeliness/Hitting Milestones

• Quick ramp-up
  ▪ Management
  ▪ Procurement
  ▪ Personnel
  ▪ Flexible Space/Surge Space

Additional staffing required for marketing, relations, internal training, and managing industry projects