Commonwealth Research Commercialization Fund (CRCF)

Presented to the

Virginia Research Investment Committee

June 22, 2016
Commonwealth Research Commercialization Fund (CRCF)

**Purpose**: Drive innovation and economic growth in Virginia through funding technology-based research and commercialization

**FY2012 – 2016**: 232 awards for $19.9M

**Sample outcomes reported in FY2015:**

<table>
<thead>
<tr>
<th>Public/Private Investment Leverage</th>
<th>Economic Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• $5.6M in match</td>
<td>• 28 patents issued</td>
</tr>
<tr>
<td>• 2:1 leverage</td>
<td>• &gt; 120 patents pending or under development</td>
</tr>
<tr>
<td>• $58M in follow-on investments</td>
<td>• 115 new hires</td>
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<tr>
<td></td>
<td>• 9 clinical trials; FDA approvals</td>
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<tr>
<td></td>
<td>• 5 new products and/or services</td>
</tr>
<tr>
<td></td>
<td>• Technologies licensed</td>
</tr>
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<td></td>
<td>• University spinouts</td>
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CRCF and the Innovation Continuum

- Research
- Proof of Concept or Invention
- Early Stage Development
- Product Development
- Production

- CRCF Matching Funds Program
- CRCF Eminent Researcher Recruitment Program
- CRCF Commercialization Program
- CRCF SBIR/STTR Matching Funds Programs

Innovation continuum adapted from US Dept. of Commerce

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CRCF Matching Funds Program

**Purpose:** Leverage public or private funds for commercialization

**Recipients:** Higher ed institutions, federal research labs, university research consortia that include Virginia college and university member institutions

**Funding:** Up to $100K*

**Match Requirement:** Minimum 1:1

**Research Areas**
- Aligned with *Commonwealth Research and Technology Strategic Roadmap*
- FY16 areas - cybersecurity, energy, data analytics, life sciences and unmanned systems

**FY16 Awards**
- Number of Awards – 15
- Award Dollars – $1,433,641

*FY16 award cap
CRCF Eminent Researcher Recruitment Program

**Purpose:** Acquire and enhance research superiority

**Recipients:** Public institutions of higher education

**Funding:** Up to $250K*

**Match Requirement:** Minimum 1:1; 50% of match from private sector partner

**Research Areas:**
- Aligned with *Commonwealth Research and Technology Strategic Roadmap*
- FY16 areas - cybersecurity, energy, data analytics, life sciences and unmanned systems

**FY16 Awards**
- Number of Awards – 2
- Award Dollars – $445,000

*FY16 award cap*
Purpose: Advance commercialization of proof-of-concept technology

Recipients: Virginia-based high-expectation companies

Funding: Up to $50K*

Match Requirement: Minimum 1:1

Research Areas
• Aligned with Commonwealth Research and Technology Strategic Roadmap
• FY16 areas - cybersecurity, energy, data analytics, life sciences and unmanned systems

FY16 Awards
• Number of Awards – 22
• Award Dollars – $1,072,680

*FY16 award cap
**Purpose:** Leverage federal funds for technology development or commercialization

**Recipients:** Virginia-based businesses that have received SBIR or STTR Phase I or II

**Funding:** Up to $50K*

**Match Requirement:** Federal SBIR / STTR Award

**Research Areas**
- Aligned with *Commonwealth Research and Technology Strategic Roadmap*
- FY16 areas - cybersecurity, energy, data analytics, life sciences and unmanned systems

**FY16 Awards**
- Number of Awards – 9
- Award Dollars – $448,678

*FY16 award cap*
FY2012-2016
CRCF Awards by Program

232 Awards Total

- Commercialization Program: 64 awards
- Eminent Researcher Recruitment Program: 59 awards
- Facilities Enhancement Loan Program: 8 awards
- Matching Funds Program: 92 awards
- SBIR Matching Funds Program: 8 awards
- STTR Matching Funds Program: 1 award
FY2012-2016
Awards by Primary Industry Sector

232 Awards Total
- Advanced Manufacturing (19)
- Aerospace (1)
- Communications (3)
- Cyber Security (23)
- Energy (26)
- Environment (4)
- Information Technology (9)
- Life Sciences (130)
- Modeling & Simulation (10)
- Nuclear Physics (1)
- Transportation (1)
- Unmanned Systems (5)
FY2012-2016
Awards by Technology Council Region

<table>
<thead>
<tr>
<th>Region</th>
<th>$ Awarded</th>
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<tbody>
<tr>
<td>Charlottesville</td>
<td>$5,638,710</td>
</tr>
<tr>
<td>Hampton Roads</td>
<td>$5,045,841</td>
</tr>
<tr>
<td>Northern Virginia</td>
<td>$2,630,102</td>
</tr>
<tr>
<td>Region 2000</td>
<td>$451,952</td>
</tr>
<tr>
<td>Richmond</td>
<td>$2,137,589</td>
</tr>
<tr>
<td>Roanoke – Blacksburg</td>
<td>$3,075,902</td>
</tr>
<tr>
<td>Shenandoah Valley</td>
<td>$451,862</td>
</tr>
<tr>
<td>Southern Piedmont</td>
<td>$328,724</td>
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<tr>
<td>Southwest Virginia</td>
<td>$186,883</td>
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CRCF Process

- Consult with Secretary of Technology to develop guidelines
- Coordinate with Research & Technology Investment Advisory Committee (RTIAC)
- Announce funding opportunity
- Letters of Intent due
- Proposals due
- CIT – Compliance review
- Subject Matter Experts (SMEs) – Review and rank submissions
- RTIAC – Review and make award recommendations to CIT Board
- CIT Board – Approval of RTIAC recommendations
- Award announcements

- Monitor project portfolio for five years after projects end