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CIT Announces Commonwealth Research Commercialization Fund (CRCF) FY2014 Spring Solicitation Awards

Awards target research and commercialization activities in the Commonwealth, continue to spur innovation and company formation

June 5, 2014 (HERNDON, Va.) – The Center for Innovative Technology (CIT) announced today 38 Commonwealth Research Commercialization Fund (CRCF) awards totaling nearly \$3 million for the purpose of funding targeted areas of research with commercial promise. Twenty-seven organizations from academia and industry in the Commonwealth received this commercialization support, which is aligned with the [Commonwealth Research and Technology \(R&T\) Strategic Roadmap](#).

The CRCF program is a state fund designed to advance, in Virginia, targeted areas of research with potential for economic growth. During this round, applications were invited under six programs: Commercialization, Eminent Researcher Recruitment, Facilities Enhancement, Matching Funds, SBIR Matching Funds, and STTR Matching Funds.

Pete Jobse, CIT President and CEO, said, “These awards continue the CRCF mission to advance crucial research and commercialization projects that foster innovation and new economic development opportunities across Virginia.”

“We were very pleased to receive an exceptionally strong set of proposals this round. The proposals that were awarded continue to support goals and industry opportunities identified in the Commonwealth Research and Technology Strategic Roadmap,” said Nancy Vorona, Vice President of CIT R&D.

The following CRCF proposals will be awarded, contingent upon acceptance of award terms and conditions:

Commercialization Program

- AxonAI, LLC (Harrisonburg), *Ant-Based Cyber Defense*, Dr. Sven Brueckner, \$50,000
- AxonAI, LLC (Harrisonburg), *Information Discovery with Active Models*, Dr. Sven Brueckner, \$50,000
- AxonDx, LLC (Harrisonburg), *Development of a Circulating Tumor Cell Identification and Characterization System*, Dr. Jeffrey Smith, \$50,000
- Cardinal Mechatronics (Blacksburg), *Non-Contact Measurement of Patient Respiratory Rate with a LWIR Camera System*, Dr. John Bird, \$49,960
- Nanofoundry, LLC (Glen Allen), *Development of In-Line Monitoring of Magnetic Properties in a Micro-Channel Reactor System for Nanoparticle Manufacturing*, Dr. Everett Carpenter, \$15,000
- NextGen Diagnostics (Ashburn), *Commercializing NextGen Diagnostics*, Dr. Keith Crandall, \$50,000
- Ultrasonic Probe LLC (Glen Allen), *UltraSonographic Periodontal Probe*, Mr. Jack Singer, \$50,000
- UpHex, LLC (Charlottesville), *UpHex Commercialization*, Mr. Bradley Kipp, \$50,000

Eminent Researcher Recruitment Program

- University of Virginia (Charlottesville), *Companion Diagnostics and Targeted Therapeutics for Treating SASIB Positive Cancers*, Dr. John Herr, \$249,862
- Virginia Tech (Blacksburg), *Recruitment of Eminent Researcher in Infectious Diseases and Immunology*, Dr. Michael Friedlander, \$250,000

Matching Funds Program

- College of William and Mary (Williamsburg), *Manufacturing Polymers with Advanced Performance Through Graphene-Based Nanoparticle Additives*, Dr. Hannes Schniepp, \$100,000
- Eastern Virginia Medical School (Norfolk), *Development and Commercialization of a New, Sensitive and Chemo-Responsive Anti-SIAH-Based Monoclonal Antibody Detection Kit to Determine and Quantify the Efficacy of Chemotherapies in Real Time for Virginia Breast Cancer Patients with Metastatic Diseases*, Dr. Amy Tang, \$100,000
- Eastern Virginia Medical School (Norfolk), *Development of Selective 12-Lipoxygenase Inhibitors for Type 1 Diabetes*, Dr. Jerry Nadler, \$100,000
- George Mason University (Fairfax), *Manufacture Large-Area Two-Dimensional Semiconductor Materials for Portable, Flexible and Transparent Electronics*, Dr. Qiliang Li, \$100,000
- The George Washington University (Ashburn), *Technical Feasibility and Potential Commercial Impact of High-Efficiency Solar Cells Enhanced with Quantum Dots*, Dr. Andrei Afanasev, \$50,000
- Old Dominion University Research Foundation (Norfolk), *Advanced Single Axis Solar Tracking System for Enhanced Energy Generation*, Dr. Michael Seek, \$25,000
- Southern Virginia Higher Education Center (South Boston), *Advancing Commercialization in Virginia of Southern Yellow Pine Cross-Laminated Timbers Through Materials and Process Testing*, Mr. David Kenealy, \$78,724
- Southwest Virginia Higher Education Center Foundation (Abingdon), *Novel Lyme Disease Vaccine for Wildlife and Other Mammals*, Mr. Ed Rogers, \$86,883

- University of Virginia (Charlottesville), *Efficient Programming for Automata Processors*, Dr. Kevin Skadron, \$100,000
- University of Virginia (Charlottesville), *Integration of Nano-Structured Oxides as Energy Generating Thermal Barrier Coatings*, Dr. Patrick Hopkins, \$100,000
- University of Virginia (Charlottesville), *A pH-Resistant Nanoparticle Platform for Oral Delivery of Insulin*, Dr. Mark Kester, \$100,000
- Virginia Commonwealth University (Richmond), *A New Strategy for Buprenorphine Oral Delivery*, Dr. Phillip Gerck, \$100,000
- Virginia Commonwealth University (Richmond), *Olfactory Implant Device*, Dr. Richard Costanzo, \$100,000
- Virginia Institute of Marine Science (Gloucester Point), *Optimizing Commercial Production of Triploid Crassostrea Virginica Through Development of Elite Tetraploid Brood Stock*, Dr. Standish Allen, \$100,000
- Virginia Tech (Blacksburg), *Advanced Manufacture and Testing of a Brain Cancer Treatment*, Dr. Robert Gourdie, \$100,000
- Virginia Tech (Blacksburg), *Hydrokinetic Energy Harvesting for Distributed Power Supply*, Dr. Mark Stremmer, \$61,414
- Washington and Lee University (Lexington), *Structure from Motion (SfM) Geological Modeling Using Terrestrial and Aerial Imagery from a Vertical Take Off and Landing Unmanned Aerial Vehicle (VTOL UAV)*, Dr. Christopher Connors, \$38,000

SBIR Matching Funds Program

- algorithmRx LLC (North Chesterfield), *Computer-Assisted Clinical Decision-Support Tool for Management of Statins*, Mr. Stephen Hutcherson, \$50,000
- Biosensor Tech LLC (Richmond), *Development of a Highly Reliable Continuous Wireless Monitoring System for Cardiac Patients Through Implantable Sensors*, Dr. Xinchuan Liu, \$50,000
- NextGen Diagnostics (Ashburn), *NextGen Diagnostics Proof of Concept*, Dr. Keith Crandall, \$50,000
- PaneraTech, Inc. (Chantilly), *Structural Imaging of High Temperature Furnace Walls*, Dr. Yakup Bayram, \$49,996
- Rivanna Medical (Crozet), *Needle Guidance with High-Resolution Handheld Ultrasound*, Dr. F. William Mauldin, \$50,000
- Rivanna Medical (Crozet), *New Sensor Technology for Guidance of Orthopedic Joint Injections Using Compact Ultrasound*, Dr. F. William Mauldin, \$50,000
- SoundPipe LLC (Charlottesville), *Methods for Simultaneously Guiding and Effecting Neointimal Hyperplasia Prevention*, Dr. Joseph Kilroy, \$48,428
- VoltMed Inc. (Blacksburg), *Developing a Minimally Invasive Catheter-Based Probe for Targeted Drug Delivery to the Brain*, Dr. Michael Sano, \$50,000

STTR Matching Funds Program

- Cell Free Bioinnovations Inc. (Blacksburg), *Mobile Electricity Generation Powered by Biohydrogen from Biomass Sugars Catalyzed via Cell-Free Biosystems*, Dr. Zhiguang Zhu, \$49,999
- Springbok, Inc. (Charlottesville), *Big Muscle Data Tool that Transforms Athletic Training*, Dr. Xue Feng, \$50,000

- VoltMed Inc. (Blacksburg), *INSPIRE Therapy: Real Time Treatment and Monitoring of Pancreatic Cancer*, Dr. Rafael Davalos, \$50,000

This list, along with award recipients from previous solicitations, can also be accessed at <http://www.cit.org/initiatives/crcf-awards/>.

Proposals underwent a four-step review process beginning with guideline compliance performed by CIT and followed by a review by subject matter experts from industry, academia and government. The Research and Technology Investment Advisory Committee (RTIAC) then recommended proposals to be funded to CIT's Board of Directors, which selected the awards. CIT staff will be available to discuss the selection process beginning June 23, 2014.

CRCF FY2015 opportunities will be posted on the CIT website at <http://www.cit.org/initiatives/crcf/>.

About the [CRCF](#) and [R&T Roadmap](#)

The Commonwealth Research Commercialization Fund (CRCF) advances science- and technology-based research, development and commercialization to drive economic growth in Virginia and to encourage collaboration among its institutions of higher education and partnerships between these colleges and universities and business and industry.

The Commonwealth Research and Technology (R&T) Strategic Roadmap is a comprehensive planning tool the Commonwealth uses to identify research areas worthy of economic development and institutional focus. It provides elected and other officials with priorities in key industry sectors that have commercial promise and that are eligible for new CRCF awards. The Research and Technology Investment Advisory Committee (RTIAC), comprised of university, industry and economic development experts, reviews applications and make award recommendations to the CIT Board.

About the Center for Innovative Technology, www.cit.org

Since 1985, CIT, a nonprofit corporation, has been Virginia's primary driver of innovation and entrepreneurship. CIT accelerates the next generation of technology and technology companies through commercialization, capital formation, market development and revenue generation services. To facilitate national innovation leadership and accelerate the rate of technology adoption, CIT creates partnerships between innovative technology start-up companies and advanced technology consumers. CIT's CAGE Code is 1UP71. To learn more, please visit www.cit.org. Follow CIT on Twitter [@CITorg](#) and add the Center for Innovative Technology on [LinkedIn](#) and [Facebook](#).

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