

FY12 Research & Development

Staff Summaries & Recommendations – May 2012

#	Organization	Project	Requested
2509	Danville, City of	Commercialization Of Prasiديوx Temperature Indicators	\$510,000
2510	Danville, City of <i>Withdrawn 5/2/10</i>	Production of Leaf Proteins and Other Biobased Products from Tobacco, Alfalfa and Other Crops	\$1,247,995
2511	Martinsville-Henry County Economic Development Corporation	Marine Shrimp Culture in Recirculating Aquaculture Systems	\$673,060
2513	One Care	Divert-X: Systems to monitor and reduce the diversion of prescription medications	\$650,000
2514	Southwest Virginia Higher Education Center Foundation	Separation and Extraction of Raw Materials from Residential Roofing Products	\$1,355,000
2540	Nottoway County	Development of Band Selective Relay Station (LTE) for In-Building Solutions (IBS)	\$1,208,320
Total Requested			\$5,644,375
Total Available			\$39,165,882

#2509

City of Danville

Commercialization Of Prasiديوx Temperature Indicators

The City of Danville is requesting \$510,000 to engineer and test a pilot production facility for smart-gel technology that is intended for use by pharmaceutical manufacturers. A relationship with GlaxoSmithKline appears to already be established, and the application asserts that *“four of the largest vaccine manufactures in the nation are located within a 130 mile radius of Danville.”* Smart-gel indicators are designed to *“provide a visual indication when the product ... is exposed to a harmful temperature.”* Project milestones and budget requirements are clear, though Prasiديوx has not yet raised the full matching amount. Costs are to be shared across budget categories and include personnel, contractual services, continuous charges and equipment. The City of Danville will own the equipment purchased with TICRC monies. While only a limited number of employees would be involved in this stage of R&D, the beneficiary indicates that employment at full commercialization is projected to be 40 persons. With the understanding that TICRC funds will not be disbursed until all funds necessary to complete this pilot manufacturing initiative are committed and available, **staff recommends referral to the VEDP for vetting.**

#2510

City of Danville

Production of Leaf Proteins ... from Tobacco, Alfalfa and Other Crops

Withdrawn by applicant.

#2511

Martinsville-Henry County Economic Development Corporation (EDC)

Marine Shrimp Culture in Recirculating Aquaculture Systems

The EDC is requesting \$673,000 on behalf of Blue Ridge Aquaculture (BRA) to further develop commercial scale viability of recirculating aquaculture technology for shrimp production. The budget and timeline are clear, and the required matching funds appear to be committed and available. Commission funds would be used for personnel, contractual and continuous charges, supplies and marketing. Virginia Tech continues its participation, reserving the “*right to negotiate the subcontract under the proposed award*” with TICRC and requesting that BRA seek exceptions to standard provisions of the agreement; that is, no security interest, indemnification, liability or remedy clauses (i.e. sovereign immunity). Please note that Virginia Tech is neither the applicant nor the beneficiary, and enjoys no rights. If the university’s claim of immunity is correct there is no reason for any sidebar agreement that might dilute the intent of the TICRC to require commercialization within the footprint, and while the university may be immune from liability neither the applicant nor the beneficiary are. Staff finds no compelling reason to modify any terms of the agreement due to Virginia Tech’s involvement in this initiative. Based upon the successful completion of this R&D phase, BRA anticipates establishing a commercial scale production facility that would employ 25 persons and require a capital investment of approximately \$10M. **Staff recommends referral to the VEDP for vetting.** Please note that this investment, if approved, would bring the total TICRC investment in BRA to approximately \$1M.

#2513

One Care of Southwest Virginia, Inc.

Divert-X: Systems to monitor and reduce the diversion of prescription medications

One Care of Southwest Virginia, Inc. is requesting \$650,000 to design and implement a clinical protocol intended to provide patient data that can be used to develop a fully-integrated patient monitoring system to detect anomalous usage (i.e. drug diversion) of prescription medications, and, further, to demonstrate the ability of Divert-X to generate overall cost savings to healthcare providers. The basic technology exists, though the proposed scope-of-work is intended to support necessary software development. Commission funds would be used for patient and clinic fees, pharmaceutical and hardware costs, clinical trial design and project management. The beneficiary indicates that it will site its business in Southwestern Virginia for the commercial roll-out of Divert-X with the expectation of hiring 40 individuals and providing \$3M in private capital investment. Matching financing is not yet in place. It is clear that the intent of this project is to support marketing of Divert-X. Given that the subjects already have access to health care, it appears that this is as much about law enforcement as it is about public health. **Staff recommends referral to the VEDP for**

vetting, with the understanding that no TICRC funds will be disbursed until all financing necessary to complete the project is committed and available.

#2514

Southwest Virginia Higher Education Center Foundation (SWVHECF)
Separation and Extraction of Raw Materials from Residential Roofing Products

The SWVHECF is requesting \$1,355,000 on behalf of ASR Holdings, LLC (ASR) to “*enhance its process for disaggregating asphalt shingles ... into constituent ingredients.*” ASR has a patent-pending proprietary process that is to be refined in order to extract “*value from material that currently has low or negative market value.*” Most TICRC funds would be used for equipment needed for processing of waste shingles. Matching funds appear to be committed, and both timeline and milestones are clear. ASR indicates that 28 net new jobs and a further \$1.7M in capital investment will come to the City of Bristol for ongoing R&D activities for a period of not less than five years. The application notes that full-scale processing is not to be expected within the TICRC footprint, so there is no commercialization component. Not every viable R&D project is a good fit for the TICRC’s program. Absent commercialization potential that is expected to lead to employment opportunities and significant taxable capital investment within the TICRC footprint, **staff recommends no further action.**

#2540

Nottoway County
Development of Band Selective Relay Station (LTE) for In-Building Solutions (IBS)

Nottoway County is requesting \$1,208,320 to support applied research and development by StratCom International on its digital optical switching and repeater technologies. The objective is to refine existing applications for use in mobile devices such as cell phones, tablets and laptop computers as well as structures. StratCom International anticipates coordinating this research with Virginia Tech’s advances in wide-band antenna integration in order to improve wireless broadband connectivity. Matching funds appear to be committed and available, with disbursement on a dollar-for-dollar matching basis for personnel, facility leasing including continuous charges, supplies and equipment, and contractual and limited travel expenses. The timeline and milestones are clear. Sixteen net new jobs are projected. Please note that Nottoway County, while providing a letter of support, will not vote on a formal resolution agreeing to serve as applicant until May 17, 2012. Accordingly, **staff recommends referral to the VEDP for vetting** only if Nottoway County provides the necessary resolution.