

**SOUTH DAKOTA BOARD OF REGENTS**

**Academic and Student Affairs**

**AGENDA ITEM: 5 – F**

**DATE: October 7-8, 2015**

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**SUBJECT: FY16 R&D Innovation Grant Awards**

The Research & Development Innovation Grant program was established during the 2013 Legislative Session to provide grants to the campuses using a competitive process for research infrastructure investments in key industry sectors. Each year \$700,000 is available to facilitate research and development activities that strategically align an institution’s research agenda with one, or a combination, of the seven key areas outlined in the *2020 Vision* document<sup>1</sup>. These strategic investments should assist campuses with bridging translational research activities that have the potential to foster economic development and commercialization in the target industry sectors.

Proposals from individual researchers are not considered for this grant program, but must be submitted as part of a single campus-wide proposal package. Each campus may submit a single proposal for funding that will not exceed \$200,000. Allowable expenditures may include one or a combination of any of the following sources: 1) required matching dollars in support of research proposals to federal or private entities, 2) new faculty start-up funds for tenure-track faculty hired in the current fiscal year; 3) new acquisitions of scientific equipment or campus-wide infrastructure necessary to enhance the capability of campus research laboratories to increase competitiveness for external research; 4) support for collaborative sponsored research with industry partners; and/or 5) technology transfer activity designed to expand the commercialization and economic development potential for existing research.

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<sup>1</sup> These research and development areas include: 1) Advanced Manufacturing & Materials; 2) Energy and Environment; 3) Human Health and Nutrition (including Medical Technology); 4) Information Technology/Cyber Security/Information Assurance; 5) Plant and Animal Bioscience; 6) Underground Science & Engineering; and 7) Visualization (from the molecular level to global systems).

(Continued)

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**RECOMMENDED ACTION OF THE EXECUTIVE DIRECTOR**

Information only.

### **FY16 R&D Innovation Grant Awards**

The Request for Proposals (RFP) for the FY16 R&D Innovation Grant Awards was posted on April 8, 2015 and each institution submitted a proposal by the June 17<sup>th</sup> deadline. Each proposal was evaluated and reviewed by members of the external evaluation panel representing members of the REACH committee. Reviews were completed on July 21<sup>st</sup>, and award letters were mailed on July 28<sup>th</sup>. Award winners for this year include:

#### ***Black Hills State University***

- BHSU Underground Campus – Strategic investments in equipment to outfit its campus at the 4850' Level of the Sanford Underground Research Facility.
  - Amount Requested: \$133,350
  - Amount Awarded: \$110,454

#### ***South Dakota School of Mines & Technology***

- Project 1: Nano-Bio Microscopy Suite in support of BioSNTR; Project 2: Sono-Tek ExactaCoat Ultrasonic Coating System; and Project 3: Plasma Electrolytic Oxidation.
  - Amount Requested: \$200,000
  - Amount Awarded: \$200,000

#### ***South Dakota State University***

- Sanford Health – SDSU Human Nutrition and Wellness Collaboration.
  - Amount Requested: \$200,000
  - Amount Awarded: \$189,546

#### ***University of South Dakota***

- Acquisition of a high performance computing cluster.
  - Amount Requested: \$200,000
  - Amount Awarded: \$200,000

### **FY15 R&D Innovation Grant Awards**

#### ***Black Hills State University***

- BHSU Underground Campus – Establish a Staging and Cleanroom Facility at the 4850' Level of the Sanford Underground Research Facility.
  - Amount Requested: \$197,950
  - Amount Awarded: \$125,000

#### ***Dakota State University***

- A Cyber Security Research Infrastructure at DSU for Cloud and Big Data Security, and Digital Forensic Research.
  - Amount Requested: \$108,000
  - Amount Awarded: \$90,000

***Northern State University***

- Acquisition of a Real-time, Quantitative Polymerase Chain Reaction (qPCR) Machine to Strengthen the Research Capacity of the Science Department.
  - Amount Requested: \$13,000
  - Amount Awarded: \$13,000

***South Dakota School of Mines & Technology***

- Project 1: Rock Physical and Mechanical Property Testing; Project 2: Rock and Fluid Chemical Testing; and Project 3: Simulating Coupled Fluid-Rock Systems.
  - Amount Requested: \$200,000
  - Amount Awarded: \$150,000

***South Dakota State University***

- Sanford Health – SDSU Human Nutrition and Wellness Collaboration.
  - Amount Requested: \$200,000
  - Amount Awarded: \$170,000

***University of South Dakota***

- Acquisition of a Confocal Laser Scanning Microscope to Enhance Biomedical Research and Commercialization.
  - Amount Requested: \$200,000
  - Amount Awarded: \$152,000

**FY14 R&D Innovation Grant Awards**

***Black Hills State University***

- Acquisition of Equipment to Increase Research Capacity and Enhance Competitiveness for Extramural Funding in Biomedical Research at Black Hills State University.
  - Amount Requested: \$132,285
  - Amount Awarded: \$117,846

***Dakota State University***

- An Analytics Cyber-Infrastructure for Intelligent Weight-Loss Intervention.
  - Amount Requested: \$185,514
  - Amount Awarded: \$40,000

***Northern State University***

- Acquisition of a Gas Chromatograph and an Atomic Absorption Spectrometer to Upgrade the Equipment of the Science Department.
  - Amount Requested: \$42,154
  - Amount Awarded: \$42,154

***South Dakota School of Mines & Technology***

- Project 1: State-of-the-Art Laboratory for Larger-Scale Production of Electrospun Nanofibers; Project 2: Electrochemical Laboratory for Research & Development in Power Generation and Storage; and Project 3: Purchase of a Field-Portable Visible and Near-Infrared Spectroradiometer.
  - Amount Requested: \$200,000
  - Amount Awarded: \$200,000

***South Dakota State University***

- Acquisition of an in-vivo Imaging System for Small Animal and Plant Research.
  - Amount Requested: \$199,999
  - Amount Awarded: \$100,000

***University of South Dakota***

- Acquisition of State-of-the-Art Instrumentation for High-Resolution Visualization and Characterization of Advanced Materials and Processes.
  - Amount Requested: \$200,000
  - Amount Awarded: \$200,000