

NEWS RELEASE
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National Science Foundation Announces \$20 Million Research Award to South Carolina:

The Largest Single Competitive NSF Award in SC History

COLUMBIA, SC – July 23, 2009 – The National Science Foundation (NSF) today awarded South Carolina \$20 million to establish a statewide alliance in the field of tissue biofabrication, which could lead to the production of human organs.

In announcing the award, Dr. W. Lance Haworth, Director of the Office of Integrative Activities at NSF said, “I am delighted to announce this award from NSF to accelerate research and education and to expand collaborations among the constellation of South Carolina colleges and universities represented here today. This 5 year award combines world class science with expertise from medicine to engineering to computer science to mathematics to journalism.”

The alliance includes the state’s three doctoral granting research universities, Clemson University, the Medical University of South Carolina and the University of South Carolina. Three historically black colleges & universities, Claflin University, South Carolina State University and Voorhees College are included. Furman University and the University of South Carolina-Beaufort are also members of the alliance. Two-year technical colleges participating in the research are Denmark Technical College and Greenville Technical College. SCRA will serve as fiscal agent of the award.

“This award brings together multiple expertise and talent from across our state as it is a true collaborative effort with tremendous scientific rigor,” said Dr. Jerry Odom, principal investigator for the award. “This holds the promise of raising South Carolina to national prominence in the field of human tissue biofabrication.” Odom serves as Executive Director of the University of South Carolina Foundations.

Lead scientist for the project, Dr. Roger Markwald of the Medical University of South Carolina said, “We are trying to build tissue and organs from the inside out, which is a

different approach than anyone has taken. First, we want to create a three-dimensional vascular tree and then the organ. This will allow us to develop the applications to build many different types of organs.”

The award provides for:

- Expansion of a current Medical University of South Carolina bioprinting program into a statewide Advanced Tissue Biofabrication center
- Recruitment of 22 new faculty with expertise not currently available in South Carolina
- Creation of a global e-community to facilitate the development of sophisticated databases in vascular technology
- Establishment of national and international academic industrial collaborations and the integration of statewide initiatives for workforce development, education and communication to the general public
- Integration of the alliance’s research with K-12 education to build South Carolina’s future high-tech workforce.

Educational innovations include development of e-textbooks and new curricula. New graduate degree programs and postdoctoral and graduate research training are planned across the state. Training opportunities for South Carolina’s reporters and journalism students will enable in-depth reporting of scientific achievements and will enhance science literacy statewide.

This NSF award will connect regional, national and international cyber-networks and support collaborative e-communities for education in science, technology, engineering and mathematics. Other activities will bridge South Carolina’s minority serving programs and integrate with the science, education, communication and sustainability plans of the project.

Dr. John Raymond, Chair of the State EPSCoR/IDeA Committee and Vice President for Academic Affairs & Provost at the Medical University of South Carolina said, “This is an opportunity to do groundbreaking research to help people here and around the world.”

About SC EPSCoR/IDeA

The Experimental Program to Stimulate Competitive Research (EPSCoR) and Institutional Development Awards (IDeA) are federal-state-university partnerships designed to increase research capacity and competitiveness for federal R&D funds.

South Carolina EPSCoR/IDeA leverages federal resources with support from the SC General Assembly to build research infrastructure; infuse research into education; provide opportunities for diverse groups of institutions, students, faculty and disciplines in science and technology; and increase collaboration among key stakeholders of the state’s science and technology enterprise. Since 1990, SC EPSCoR/IDeA funds have enabled the hire of 95 junior, tenure-track faculty members in science and technology at five South Carolina colleges and universities.

SC EPSCoR/IDeA has supported research in disciplines such as biomedical engineering; neuroscience; alternative energy; nanomaterials; structural, chemical, and

cellular biology; and environmental science bringing more than \$185 million in federal research funding to the state.

For more information, visit: www.scepscoridea.org.