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Director, Office of Integrative Activities

National Science Foundation

Announcement of 5-year, \$20 Million Award to

The South Carolina Research Authority

South Carolina Statehouse

Columbia, SC

9:00 AM

Thursday, July 23, 2009

"South Carolina's BioFabrication Program:

Transformative Research and Bold Collaborations"

Dr. Gulari, thank you for your kind introduction. To Dr. Odom and his Co-Principal Investigator, Dr. Little; to Dr. Raymond; to the splendid assembly of academic leaders gathered here; and especially to the distinguished Legislators who are hosting us all here at the Statehouse:

Thank you for all your warm hospitality in welcoming me to South Carolina.

As Director of the Office of Integrative Activities at the National Science Foundation, it is my distinct honor to be the bearer of good news on behalf of Dr. Arden Bement, the director of NSF.

Today is a great day for research and education in science and engineering in the state of South Carolina.

I am delighted to announce an award from NSF to accelerate research and education in South Carolina, and to expand collaborations among the constellation of colleges and universities represented here today. This 5 year, \$20 million award combines world class science with expertise ranging from medicine to engineering, mathematics, journalism, and the social sciences.

This Research Infrastructure Improvement Award is the largest NSF award ever made to South Carolina. It is made through NSF's Experimental Program to Stimulate Competitive Research, which we call EPSCoR.

The size of the award is commensurate with the quality of the proposed program of research and education focusing on the pioneering field of biofabrication.

I would like to highlight three remarkable facets of the effort proposed: the boldness of the research, the breadth and depth of the collaboration, and the strength of the cyberinfrastructure component.

First, the research program has the potential to transform the field of tissue engineering and regenerative medicine. And even more, this research program has the potential to create a new industry, creating jobs and businesses based on computer-aided, layer-by-layer positioning of bio-materials with the intent of making functional tissues and organs for transplants to help cure the sick and to help heal the injured.

Second, the historic size of the award also reflects the proposal's ambitious collaboration among a broad coalition of colleges and universities. The science reaches to and draws upon the people of all the partner institutions, so that students at many levels and from many backgrounds can experience science as exploring the unknown, and can experience engineering as ingenuity and invention. These collaborations will build human capital, expand the workforce and increase the capacity of South Carolina to contribute to the Nation's global leadership in many fields of science and engineering.

Third, the cyberinfrastructure developed will expand the connectivity, upgrade the computational facilities, and advance the robotics capabilities that every day accelerate information sharing, speed research and education, and enable breakthroughs in computer-aided bio-fabrication.

I'd also like to emphasize that the contributions of leaders from South Carolina are important to the National Science Foundation. In particular, I want to acknowledge the leadership provided by people from South Carolina in envisioning the future of NSF's EPSCoR program. Through the efforts of Jerry Odom and his colleagues, South Carolina has provided key leadership to take a fresh look at the overall mission and vision of EPSCoR.

We like to say that National Science Foundation is "Where Discoveries Begin."

NSF is the only federal agency that supports fundamental research and education across all fields of science and engineering.

In fiscal year 2009, the NSF budget is \$9.5 billion, which includes \$3.0 billion provided through the American Recovery and Reinvestment Act.

While the NSF is not the largest source of federal research dollars, no federal agency has a broader mandate in the areas of research and education.

The Foundation funds research and education in all fields of science and engineering, in all 50 states, through grants to over 1,900 universities and institutions.

Each year, we receive about 45,000 competitive requests for funding, and make 11,000 new funding awards (this one today, and 10,999 others).

We fund early-stage, cutting edge research;

We expect the projects we award to advance the frontiers of knowledge;

And we are delighted when those projects transform a field -- or even open up a whole new realm to discovery.

That is why NSF looks to fund pioneers of any age, in every state.

What you learn here over the next few years – not only from your biofabrication research but also from building and refining your collaborations – what you *pioneer* here in South Carolina will help speed the ways others states build their research infrastructure and cultivate their statewide networks of collaborations. I was very interested to learn about you Endowed Chair Program as another example of integrative partnerships here. You and your work will strengthen the nation; you will advance discoveries in science and engineering; and you will help launch the next generation of ingenious, enterprising researchers.

Your state motto [*dum spiro spero*] can be translated "as long as I breathe, I hope". I would like to ask you today to continue to embrace that affirmation of hope and determination; to commit to invest in the infrastructure and in the *people* who are the true foundations of your research enterprise – for that will make this a great day for the hopes and aspirations of all South Carolinians.

Thank you, and congratulations!