Upstate becoming a petri dish for scientific opportunities
National Science Foundation director predicts 'rapid progress' for Palmetto State

Published: Friday, February 24, 2006 - 2:00 am

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CLEMSON -- A whirlwind visit Thursday left Arden Bement, director of the National Science Foundation, optimistic about rapid progress ahead in terms of economic growth and added work-force capacity.

"What South Carolina is going to look like in another five years, I'm convinced, is extremely different than what it is today," said Bement, head of the agency responsible for 16 percent of Clemson University's federal research funding.

Stops included a fifth-grade Mauldin Elementary class participating in the "A World in Motion" program and Clemson's $21 million Advanced Materials Research Laboratory.

Bement was accompanied by U.S. Rep. Bob Inglis, the Greenville Republican chair of the Science Research Subcommittee that authorizes the NSF's $5 billion annual budget.

"It's a great opportunity to showcase Clemson research and how we leverage the funds we've been given," said Karen Burg, a Clemson bioengineering professor doing tissue research to help cancer patients.

It's a chance for the agency head to see Clemson work directly and "feel the atmosphere," rather than just hearing about it.

The entourage explored the Advanced Materials building taking in the electron microscope, nano particles lab, fiber optics draw tower and fuel cell membrane work.

"Very few places around the country are as well equipped and designed as this facility," Bement said.

Meanwhile, students and researchers absorbed in their own work -- much of it funded by the agency -- barely looked up at the passing visitors.

"Having the ability to follow your nose and pursue your ideas is so important," said Clemson chemistry professor Joe Kolis, who called the NSF "the last bastion of true research -- basic exploratory research."

Bement said he is most interested in funding research that will "push out the frontiers of science" and saw the working tools at Clemson but the next generation of scientists in the Mauldin fifth-graders.

The elementary school World in Motion program, started by NSF and supported by the Society of American Engineers, "is one of few examples" of scientific engineering principles being taught that early, Bement said.

The program "gives an opportunity for students to touch and feel science and math and to see how it can

make a difference in their lives," said Inglis, who worked with the engineering group to get the project into Greenville and Union county schools.

At a time when the United States lags behind India and China in producing engineers, making science "real" to students at an early age can help meet the "challenge of keeping people in the pipeline," Inglis said.

Bement was scheduled to tour the Center for Sustainable Futures at the University of South Carolina Friday morning and meet with USC faculty and staff to discuss K-12 Engineering Fellowships designed to enhance science education.

USC will also have presentations on fuel cells and nanotechnology, and will host a roundtable lunch with NSF Junior Faculty.