



| Photo by Leslie McKellar |

## JUST GOOD CHEMISTRY

**X-RAY ABSORPTION SPECTROSCOPY,** sulfur oxidation, metal specificity, reaction intermediates, protein purification. Welcome to Pamela Riggs-Gelasco's polysyllabic world.

Fortunately, it doesn't take an atom smasher to figure out what particles make her tick. Riggs-Gelasco, the Mebane Chair of chemistry and biochemistry, believes that "if you're not doing research, then you're not doing science."

That being said, Riggs-Gelasco is doing science – and a lot of it. Her overall work with enzymes and toxins have proven ample fodder for the top academic journals in biochemistry, and she consistently earns "beam time" at both the Stanford Synchrotron Radiation Laboratory and the National Synchrotron

Light Source at Brookhaven National Laboratory – a competitive process among research scientists to run their experiments on this very high-demand equipment.

But what really sets Riggs-Gelasco apart is that her high-level research is done in an undergraduate setting.

"I believe doing research is a critical part of our experience at the College," she observes. "And I try to have our students do work in the lab that is meaningful, useful and that has real-world application. For example, some of my students have been setting up experiments to dissect the mechanisms of how enzymes work in order to better understand their connection to disease."

"Overall, research does more than

just help our students grasp the subject better," she adds. "Research is great preparation for graduate school and, more importantly, helps them better compete for the top programs."

In recognition of her original research accomplishments with undergraduates, Riggs-Gelasco was awarded one of the seven 2007 Camille and Henry Dreyfus Teacher-Scholar Awards, which provides grant money for unrestricted research. These funds will be used to finance the undergraduate research component of Riggs-Gelasco's work, specifically for lab and student travel expenses.

Check out some of her work on the molecular and chemical approaches to disease at [www.cofc.edu/inbre/riggsgelasco.html](http://www.cofc.edu/inbre/riggsgelasco.html). 