Associate Professor Franklin West looks at media in petri dishes inside an incubator in his lab at the Rhodes Center for Animal and Dairy Science.

DREW DAVIS TUCKER



and

PROFESSOR

Associate Professor Franklin West inspires students on the frontier of genetic research

PIONEER

ssociate Professor Franklin West (Ph.D. – Animal and Dairy Science, '08) takes a student-centered approach to teaching. Using his own path and principles as examples, West inspires students in the University of Georgia College of Agricultural and Environmental Sciences Department of Animal and Dairy Science to challenge themselves.

As a student, West directly benefited from university research programs, and today he shapes a meaningful learning environment through collaboration and shared knowledge.

Under West's guidance, the college's animal biotechnology course went through major revisions. He transformed the book-and-pencil course centered on examining traditional genetics theories to be an active learning discussion about modern technology: cloning, stem cells, gene therapy, genetic manipulation and epigenetics.

As a leader at the Regenerative Bioscience Center (RBC), West helped to create the RBC Fellows, an undergraduate program that takes advantage of faculty strength in animal and dairy science, biochemistry, engineering, and veterinary medicine. In just three years, the program has grown 65 percent and involves more than 70 undergraduates.

"What I thought could be a tedious, if not boring, research experience has turned out to be one of the most rewarding and exciting experiences I have had thus far as an undergraduate," one of West's students wrote.

West has created a culture where research students feel like equal contributors and take control of their learning experiences.

Beyond teaching, West's research contributions bridge animal science and human health. His scientific accomplishments range from generating the first chicken-induced pluripotent stem cells for a project on Newcastle disease to developing a swine stroke model that could have major implications on treatments for human stroke victims.

His focus on regenerative medicine has resulted in numerous peer-reviewed publications covering stroke, stem cell plasticity and neural differentiation, Newcastle disease in poultry, and traumatic brain injury (TBI). His pioneering work on poultry and swine pluripotent stem cells led to new means of generating vaccines for livestock, animals that are resistant to poultry diseases, and controls for smaller losses in animal production.

The Journal of Neurotrauma, the authoritative publication focused on neurodegenerative disease research linked to brain trauma, featured West's work on the development of a translational model for the largest population of TBI victims: children up to four years old.

"Frank's sincerity, honesty, perseverance and dedication are what drive his research excellence," said RBC Director Steve Stice, also West's graduate school mentor. "He works in a world where ideas are shared and where friendship matters most."

Charlene Betourney