

**Dr. Daniel Álvarez** received his Ph.D. in Food Science and Technology in 2002 from the University of Murcia, Spain, where he also graduated as a Doctor of Veterinary Medicine in 1992. He also received a Bachelor's degree in Biological Sciences in 1988. He has since enjoyed several different appointments since 1999 to the present: Health Veterinary Inspector; High School Professor of Human Dietetics and Nutrition; Veterinary Inspector of Agriculture; Interior Commerce Inspector, and Research and Adjunct Professor of Food Microbiology (University of Orihuela, Spain) and Food Science and Technology (University of Murcia, Spain)

Dr. Álvarez is a Research Scholar at the Department of Food Technology, Nutrition and Bromatology at the University of Murcia, Spain, with more than 12 years experience in pork carcass processing, and both off-line and on-line measurement methods for assessing meat quality. Since 2006, he has been working in the Department of Animal and Food Sciences as well as the Biosystems and Agricultural Engineering Department at the University of Kentucky as a Postdoctoral Research Assistant.

In 2005, Dr. Álvarez was awarded with a grant from the Foundation Seneca in Spain, to begin a new research line in meat products sensor development. This grant has permitted him to work intensely at UK, building and testing a new fiber optic instrument specially designed for studying and monitoring optical properties of meat. He has developed a dedicated laboratory optical instrument that has been tested to measure light backscatter at different distances to detect changes in comminuted meats that may be correlated to emulsion stability. The scientific information collected by Dr. Álvarez using this device is essential for the development of an optical sensor technology to control meat emulsification. In 2007, Dr. Álvarez was instrumental in obtaining a \$100,000 KSEF grant that will enable him to continue the development of an optical backscatter sensor for monitoring and controlling meat emulsification during the chopping process.