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John Roberts Joins Cornell Faculty

by John Zakour

GENEVA, NY: Dr. John Roberts has joined Cornell University as an assistant professor in the department of Food Science and Technology at the New York State Agricultural Experiment Station in Geneva, NY. Roberts began work on March 8 as the department's fruit and vegetable process engineer. His work will focus on the design and study of process systems for plant derived raw material. His research will encompass areas such as: transport phenomena in both conventional and new processes, including retort and microwave heating respectively, process design and optimization, functional ingredient application and thermal deterioration, and shelf-life extension through minimal processing. To best utilize his outstanding technical and communication skills, Roberts will carry an unusual three-way split of research, extension, and teaching. He will be responsible for the unit operations of the Processing of Fruits and Vegetable course that will be offered every other year.

"John Roberts adds a dimension of strength in the food engineering area that will allow us to expand our basic knowledge in the area of thermal processing of food using novel technologies," said Dr. Mark McLellan, chairman of the Food Science and Technology department in Geneva. "This will lead to numerous opportunities and advancements for the New York State food manufacturing and processing industry," McLellan noted.
"I am really looking forward to getting my research started and establishing trust among the academic and processing community," Roberts said. "I am anxious to see what the needs are for local processors and develop research to meet those needs," he added. Roberts is also happy to bring much of his own equipment with him from Rutgers. "Pillsbury owns the equipment, and they had an agreement with my major advisor, Dr. Woody Tong, who left academia for industry. The agreement allowed transfer of the equipment to me so that I can continue research in microwave heat applications," Roberts explained. He stressed how fortunate he is to have state-of-the-art equipment. The equipment consists of a large (1 cubic meter) microwave cavity, a magnetron and a temperature feedback controller, a dielectric property measurement instrument, and a fiber optic temperature/pressure instrument, which measures the internal temperature and pressure of foods in a microwave environment.

Roberts received his B.S. in Agriculture (major in Food Science and Human Nutrition) in 1993 from the University of Florida at Gainesville. He received his M.S. in Food Science in 1994 also from Gainesville. He received his Ph.D. in Food Science in 1999 from Rutgers, The State University of New Jersey. Roberts' thesis was entitled "Modeling the Drying of Hygroscopic Porous Material Based on Simultaneous Heat and Mass Transfer."

Roberts has worked as an analytical technician and a quality assurance technician at Tropicana Products, Inc. He also served an internship at the University of Florida where he worked on developing a new thaw process for frozen shrimp, a project on which he continued work on for his master's degree. While at Rutgers, Roberts was a USDA Fellowship recipient, a part-time lecturer, and teaching assistant. He prepared and presented lectures to undergraduates, and was awarded the Endel Karmas Teaching Award in Food Engineering. Roberts has also written numerous papers on ohmic thawing.

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