CHRISTINA A. MIRELES DEWITT
Associate Professor – Food Chemistry

CONTACT INFORMATION

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EDUCATIONAL BACKGROUND

Oregon State University **Food Science** **Ph.D.** **2000**
Dissertation topic: Recovery and utilization of catheptic proteases from surimi wash water
Major advisor: Dr. Michael T. Morrissey

Oregon State University **Food Science** **M.S.** **1994**
Thesis topic: Complex formation of chitosan and naturally occurring polyanions
Major advisor: Dr. J. Antonio Torres

Texas A&M University **Food Science** **B.S.** **1989**
Academic Advisor: Dr. Charles W. Dill

EMPLOYMENT HISTORY

2008-present	Associate Professor, Food & Ag Products Center	Oklahoma State University
2006-present	Associate Professor, Department of Animal Science	Oklahoma State University
2000-2006	Assistant Professor, Department of Animal Science	Oklahoma State University
6/99-9/99	Adjunct Teaching Faculty, Sheldon Jackson College	Sitka, AK
1997-2000	Graduate Research Assistant, Astoria Seafood Lab	Oregon State University
1994-1996	Chemistry Operations Manager, Dallas, TX	Silliker Laboratories
1992-1994	Chemistry Operations Supervisor, College Station, TX	Silliker Laboratories
1990-1992	Teaching Assistant	Oregon State University
1988-1990	Chemistry Technician	Appl. Micro. Services, Inc

PROFESSIONAL SOCIETY MEMBERSHIPS

Honorary societies

Phi Tau Sigma, Sigma Xi, Gamma Sigma Delta

Professional organizations

American Dairy Science Association, American Meat Science Association, Institute of Food Technologists (Oklahoma Section, Food Chemistry Division, Muscle Foods Division, Education Division, Dairy Division, Aquatic Food Products Division)

SCHOLARLY PROGRAM

40% Research

Mitigation of food processing waste, allergen detection, improving meat safety, and enhancing meat/fish quality and nutritive value.

40% Extension

Industry directed training, education, and technical assistance.

20% Teaching

Food Chemistry I, Food Chemistry II, Advanced Food Chemistry, Food Analysis, Dairy Processing Foods, Introduction to Food Science.

PUBLICATIONS

Refereed Papers

Mireles DeWitt CA*, Nabors RL, Kleinholz CW, Schrader KK. 2007. Pilot plant scale acid protein solubilization of channel catfish fillets. J Food Sci 72(6):E351-E355.

Mireles DeWitt CA*, Vann DG, Bilby CA, Thomas S, Kleinholz CW, Schrader KK. 2007. Evaluation of acid and alkaline processing to remove muddy off-flavors in channel catfish (*Ictalurus punctatus)*. J Aquatic Food Prod 16(2):77-90.

Wills TM, Sigfusson H, Mireles DeWitt CA*. 2007. Partitioning of delta-tocopherol between the triacylglycerol and membrane lipid fractions of ground beef. Meat Sci 76(2):308-315.

Vann D, Mireles DeWitt CA*. 2007. Evaluation of solubilized proteins as an alternative to phosphates for meat enhancement. J Food Sci 72(1):C72-C77.

Wills TM, Sigfusson H, Bellmer D, Mireles DeWitt CA*. 2006. Effect of Cooking Method and Ethanolic Tocopherol on Oxidative Stability and Quality of Beef Patties During Refrigerated Storage. J Food Sci 71(3):C109-114.

T.J. Bowser*, K.N. Patil, P.R. Weckler and C. DeWitt. 2005. Design and testing of a low-cost, pilot-scale batch gasifier for food processing byproducts. Applied Engineering Ag 21(5):901-906.

James JM, Bellmer D, Mireles DeWitt CA*. 2004. Changes in gel attributes of beef heart when treated by acid solubilization-isoelectric precipitation and the surimi process. J Food Sci 69(6):C473-479.

Mireles DeWitt CA*, Gomez G, James JM. 2002. Protein extraction from beef heart utilizing acid solubilization. J Food Sci 67(9):3335-3341.

Mireles DeWitt C*, Morrissey MT. 2002. Parameters for the recovery of proteases from surimi wash water. Bioresource Technol 81:241-247.

Mireles DeWitt C*, Morrissey MT. 2002. Pilot-plant recovery of catheptic proteases from surimi wash water. Bioresource Technol 82:295-301.

*Corresponding author

Current Program Initiatives

Current projects: Removal of muddy off-flavors from catfish, Detection of soy allergen using Real-Time PCR, Recovery of antioxidants and antimicrobials from fruits and vegetable waste, Enhancement of meat using ammonium hydroxide, Expression of normal prion proteins using a mammalian vector system, Incorporation of solubilized protein into processed meat products.