

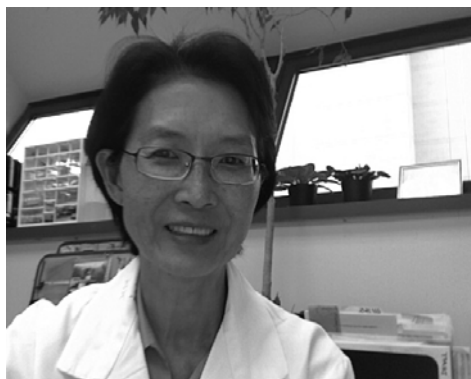
2006 Introduction to Proteomics Workshop Faculty



Stephen Barnes, PhD, is a Professor of Pharmacology & Toxicology at the University of Alabama at Birmingham and Co-Director of the Purdue-UAB Botanicals Center for Age-Related Disease. His expertise is in the study of the role of isoflavonoids and other polyphenols in chronic disease. He has been the Director of the UAB Mass Spectrometry Shared Facility since 1993 and uses this technology extensively in the study of botanicals and their protein targets in models of disease. His current project in the Botanicals Center is on the role of grape seed proanthocyanidins and other polyphenols on lens cataracts, in particular the lens crystallins.



Shannon Eliuk is a 4th year graduate student at the University of Alabama at Birmingham in Dr. Helen Kim's lab. She is studying the functional consequences of oxidative post-translational modification of the cytosolic brain isoform of creatine kinase.



Helen Kim is a native of Seoul, South Korea; she obtained her BS in Chemistry from Mary Washington College of the University of Virginia, a Master of Forest Science from Yale University School of Forestry & Environmental Studies, and a PhD in Biophysics from the University of Virginia. She is currently Associate Professor in the Department of Pharmacology & Toxicology at the University of Alabama at Birmingham, where she also co-directs the UAB Comprehensive Cancer Center Proteomics/ Mass Spectrometry Shared Facility.

Her research applies proteomic approaches in studying the health benefits and actions of polyphenol-enriched dietary supplements such as grape seed extract in animal models of neurodegeneration and other chronic diseases. Dr. Kim also directs/codirects proteomics core support for several other UAB NIH-funded centers, the Polycystic Kidney Disease Research Core (Guay-Woodford, PI), the Skin Disease Research Core (Elmets, PI), and the Center for Nutrient-Gene Interactions in Cancer Prevention (Barnes, PI).



Aimee Landar, Ph.D., is currently an Instructor in the Department of Pathology. Her current research focus is using proteomics approaches to determine the proteins which are modified by oxidative stress. Interests include protein thiol modification by electrophilic lipids and reactive oxygen and nitrogen species. She is developing techniques to overcome the technical challenges of identifying members of the proteome which form adducts with electrophilic lipids, the “electrophile responsive proteome.” This proteome is altered under conditions of oxidative stress and may be important in mediating redox cell signaling.



Dr. Sreelatha Meleth is an Associate Professor in the Medical Statistics Section of the Department of Medicine, and is an Associate Scientist and Biostatistician in the NIH-NCI designated UAB Comprehensive Cancer Center. She is responsible for providing statistical consultation for Drs. Grizzle in [EDRN \(Early Detection Research Network\)](#) and Dr. Manne and his colleagues in the Pathology Department. Dr. Meleth is a member of the Cancer Center's G.I. Working Group. Dr. Meleth has developed strong expertise in proteomic data analysis and is currently responsible for supporting several proteomic related projects particularly those associated with the

Center for Gene-Nutrient Interaction in Cancer Prevention.



James Mobley, Ph.D., is an Assistant Professor of Surgery in the Department of Urology at the University of Alabama at Birmingham where he is the Director of Urologic Research, and Co-Director of Mass Spectrometry. His graduate work was completed in the area of Medicinal Chemistry at The Ohio State University with a focus on the role of estrogens in the initiation and progression of breast cancer. Similarly, work at the University of Massachusetts Medical School involved the identification of selective estrogen receptor β modulators for the treatment of prostate cancer, in addition to developing proteomic applications for biomarker discovery applications. This work was expanded upon at Vanderbilt University in area of HTP proteomics for translational research. Current projects

involve “directed” and “non-directed” translational applications for the early detection and treatment of urologic malignancies.



Matthew Renfrow, PhD, is an Assistant Professor of Biochemistry and Molecular Genetics at the University of Alabama at Birmingham. His expertise is in the use of high resolution mass spectrometry to study post translational modifications and transcription complexes. He is also the Director of the recently commissioned (August 2005) UAB Biomedical FT-ICR MS Laboratory. His current projects are on the study of aberrant *O*-glycosylation of IgA1 found in IgA nephropathy patients and the study of a variety of transcription related complexes involved in histone modification, stem cell differentiation, and rxr nuclear receptors.



Erin Shonsey is a 5th year graduate student at the University of Alabama at Birmingham in Dr. Stephen Barnes lab. She is studying the effect of amino acid mutations and post-translational modifications on the function of human bile acid CoA:amino acid N-acyltransferase (hBAT).