

**COBRE Symposium**  
**(Centers of Biomedical Research Excellence)**  
September 29, 2005  
Wise Center  
Mississippi State University

- 9:00-9:10 a.m. Introduction, Jan Chambers, COBRE Principal Investigator  
Seminar Rm.
- 9:10-9:45 a.m. Keynote Address: **“Human Metabolism and Metabolic Interactions of Agrochemicals”**  
Dr. Ernest Hodgson, Professor Emeritus  
Department of Environmental & Molecular Toxicology  
North Carolina State University
- 9:45-10:00 a.m. Break
- 10:00-12:00 p.m. Project Presentations, CVM Seminar Room  
10:00-10:20 **“The Effects of Developmental OP Insecticide Exposure on Neurotrophin Expression”**, Russell Carr, COBRE Project 1
- 10:20-10:40 **“Dopaminergic Toxicity of Atrazine: Current State of Affairs”**, Nick Filipov, COBRE Project 2
- 10:40-11:00 **“Cellular Heterogeneity and Pesticide-induced Differentiation of Breast Cancer Cells”**, Scott Willard, COBRE Project 4
- 11:00-11:20 **“Identifying Potential Associations between Pesticide Use and Cancer using Secondary Databases”**, Bob Wills, COBRE Project 5
- 11:20-11:40 **“Human Carboxylesterases and their Role in Pyrethroid Metabolism”**, Matt Ross, COBRE Project 6
- 11:40-12:00 **“Multi-Step Model for the Molecular Mechanism of Organophosphates Binding with Acetylcholinesterase”**, Steve Gwaltney, COBRE Project 7
- 12:00-1:00 p.m. Lunch, Seminar Room (Administrative Core and PIs)
- 1:00 Poster Displays, 1<sup>st</sup> Floor Foyer
1. **"Alterations in Dopamine Neurotransmission and Gene Expression due to Postnatal Organophosphate Treatment,"** J. Eells, COBRE Pilot Project
  2. **“Numerical Modeling of a Sensor for Detecting Exposure to Organophosphates”**, R. Mohanraj and H. Wu, COBRE Pilot Project

3. **"The Effect of Low Dose Dieldrin Treatment on the Transcription and Expression of Several Genes of Toxicological Importance,"** A. Crow, COBRE New Investigator Project
4. **"A Model for Parathion Desulfuration in a Liver Sinusoid"**, S. Oppenheimer, COBRE Pilot Project
5. **"Effects of Dieldrin and Phenobarbital on the Expression of Toxicologically Important Genes,"** S. Burgess, M. B. Dail, and J. Chambers, COBRE Pilot Project
6. **"NGF Gene Expression and Protein Levels in the Juvenile Hippocampus after Repeated Exposure to Chlorpyrifos and Methyl Parathion,"** A. Betancourt, S. C. Burgess and R. L. Carr, COBRE Project 1
7. **"Effects of exposure to the pesticide atrazine on striatal neurochemistry in male C57BL/6 mice are age-dependent,"** N. M. Filipov, A. Coban, S. C. Sistrunk, and A. B. Norwood, COBRE Project 2
8. **"Growth factors augment the effects of HPTE on estrogen response element-mediated gene transcription in human breast cancer cells,"** S. Willard, A. Ravikumar, J. Ausborn, S. Bowers and A. Musselwhite, COBRE Project 4
9. **"Spatial Analysis of Effect of Cumulative Pesticide Exposure and Cancer Rate,"** R. Wills, J. Harvill and X. Tian, COBRE Project 5
10. **"Comparison of Pesticide-Usage Estimated by Purchase Records and Harvested Crop Records with Environmental Samples,"** K. Davis, S. Boone, M. Bouchard and R. Wills, COBRE Project 5
11. **"Purification and Characterization of Rat Liver Hydrolases Involved in Pyrethroid Metabolism,"** S. E. Lentz, A. Borazjani, and M. K. Ross, COBRE Project 6

Sponsored by  
NIH-COBRE program and the Center for Environmental Health Sciences