

Functional Genomics: Building the Bridge between the Genome and Phenome

Ancillary Scientists Symposium Sunday, July 16, 2006

8:00 - 8:05 **Symposium Introduction and Opening Remarks**
Craig Coon, Center of Excellence in Poultry Science, University of Arkansas,
Fayetteville

Session I: Emergence of the Chicken as a Model Organism: Implications for Agriculture and Biology

**Moderator: Robert L. Taylor, Jr., Department of Animal And Nutritional Sciences,
University of New Hampshire, Durham**

8:05 - 9:00 Dave Burt, Department of Genetics and Genomics, Roslin Institute (Edinburgh),
Roslin, Midlothian, Scotland

Session II: Global Gene Expression Profiling of Avian Systems (Gene Expression – Functional Genomics)

Moderator: Kirk Klasing, Department of Animal Science, University of California, Davis

9:00 - 9:30 **Global Gene Expression in Embryonic Development**
Parker Antin, Department of Cell Biology and Anatomy, University of Arizona,
Tucson

9:30 - 10:00 **Global Gene Expression in the Avian Neuroendocrine System**
Tom Porter, Department of Animal and Avian Sciences, University of Maryland,
College Park

10:00 - 10:15 **BREAK**

10:15 - 10:45 **Functional Mapping of Gene Networks Controlling Growth and Metabolism**
Larry Cogburn, Department of Animal & Food Sciences, University of Delaware,
Newark

10:45 - 1:15 **Genetic Mechanisms Regulating Feed Intake, Energy Balance and Body
Weight in Poultry**
Mark Richards, USDA, ARS, ANRI, Growth Biology Laboratory, Beltsville,
Maryland

11:15 - 11:45 **Application of Macrophage and Intestinal cDNA Microarrays to Study
Innate Mucosal Immunity in Avian Coccidiosis**

Hyun Lillehoj, Animal Parasitic Diseases Laboratory, Animal and Natural Resources Institute, USDA, ARS, Beltsville, Maryland

11:45 - 1:00 **LUNCH (Provided)**

Session III: Merging QTL Scans with Gene Expression Scans (Genome and QTL Analysis)

Moderator: Kirk Klasing, Department of Animal Science, University of California, Davis

1:00 - 1:30 **Quantitative Analysis and Disease-Resistance Traits**

Sue Lamont, Department of Animal Science, Iowa State University, Ames

1:30 - 2:00 **Merging QTL and Transcriptional Maps on [Chicken Chromosomes] the Chicken Genome**

Sam Aggrey, University of Georgia, Athens

2:00 - 2:30 **Genetical Genomics: Combining Gene Expression with Marker Genotypes**

Dirk de Koning, Department of Genetics and Genomics, Roslin Institute (Edinburgh), Roslin, Midlothian, Scotland

2:30 - 2:45 **BREAK**

Session IV: Emerging Technologies in the Post-Genomic Era

Moderator: Robert L. Taylor, Jr., Department of Animal And Nutritional Sciences, University of New Hampshire, Durham

2:45 - 3:15 **Functional Annotation of Genomic Data with Metabolic Inference**

Rosemary Walzem, Departments of Poultry Science and Nutrition and Food Science, Texas A&M University, College Station

3:15 - 3:45 **Using Proteomics to Understand Avian Systems Biology and Infectious Diseases**

Hsiao-Ching Liu, Animal Science Department, North Carolina State University, Raleigh

3:45 - 4:15 **Industry Perspective**

David Harry, Genetic Foundations, Philomath, Oregon

4:15 - 4:45 **Concluding Remarks: The Chicken Genome: Some Good News and Some Bad News**

Jerry Dodgson, Department of Microbiology and Molecular Genetics, Michigan State University, East Lansing

Poultry Science Ancillary Symposium Committee

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