

Texas Genetics Society 44th Annual Meeting
April 27-29, 2017
George Bush Presidential Library and Museum
College Station, TX

Thursday, April 27

3:30-5:30 p.m.
5:30-6:00 p.m.
6:00-6:05 p.m.
6:05-7:05 p.m.

George Bush Presidential Library and Museum, College Station, Texas
Board Meeting
Registration
Welcome and announcements - Erika Abel, Ph.D., TGS President
KEYNOTE ADDRESS

Animal Genomics: A Historical Perspective

James Womack, Ph.D.

Distinguished Professor, Department of Veterinary Pathobiology
College of Veterinary Medicine
Texas A&M University

Sponsored by: Texas A&M Institute of Genome Sciences and Society
Director, David Threadgill, Ph.D.

7:05-7:35 p.m.
7:35-8:35 p.m.

Career Development Panel Discussion
Reception

Friday, April 28

7:30-8:25 a.m.
8:25-8:30 a.m.
8:30-9:30 a.m.

George Bush Presidential Library and Museum, College Station, Texas
Late registration and continental breakfast
Announcements - Erika Abel, Ph.D., TGS President
INVITED ADDRESS 1

The genetic and epigenetic basis of monarch butterfly seasonal migration

Christine Merlin, Ph.D.

Assistant Professor, Department of Biology
Texas A&M University

9:30-10:30 a.m.

CONTRIBUTED PAPERS SESSION I

9:30-9:45 a.m.
Abstract 1

Genetic pest management technologies to control invasive rodents
Dona Kanavy, David Threadgill
Texas A&M University, College Station, TX

- 9:45-10:00 a.m. **Phenotypic Variation of Embryonic Spacing in the Mouse: A model for Abnormal pregnancies in Mammals?**
 Abstract 2 Samantha Peeler-Fletcher, J. Dackor, D.W. Threadgill, D.S. Threadgill
Graduate Program in Genetics, Department of Veterinary Pathobiology, Texas A&M University, Department of Molecular and Cellular Medicine, Texas A&M University, Department of Genetics at University of North Carolina
- 10:00-10:15 a.m. **Identifying a Gene Expression Signature to Predict Genetic and Environmental Effects on Ovarian Aging in Mouse Models**
 Abstract 3 Danila Cuomo, Immacolata Porreca, William Barrington, David Threadgill, Concetta Ambrosino
University of Sannio Department of Science and Technology, Biogem Research Institute, Texas A&M University, Texas A&M University, University of Sannio Department of Science and Technology
- 10:15-10:30 a.m. **Regulating the Switch: Cellular Differentiation and Mitochondrial Turnover in the Mammary Gland**
 Abstract 4 Jessica Elswood, Cole McQueen, Scott Pearson, Emily Schmitt, Steven Wahl, Garhett Wyatt, Kelly Scribner, Ross Payne, Roula Mouneimne, Monique Rijnkels, Weston Porter
Texas A&M University, College Station, TX 77843, USA
- 10:30-11:00 a.m. **Coffee break, poster and exhibit viewing**
- 11:00 a.m.-12:00 p.m. **CONTRIBUTED PAPERS SESSION 2**
- 11:00-11:15 a.m. **Molecular analysis of epidermal growth factor receptor (EGFR)-independent colorectal cancers**
 Abstract 5 Carolina Mantilla Rojas, David Threadgill
Texas A&M University, Molecular and Cellular Medicine, College Station, Texas
- 11:15-11:30 a.m. **Therapeutic Potential of miR-195 in Non-Small Cell Lung Cancer**
 Abstract 6 Xiaojie Yu, Xiuye Ma, Yiqiang Zhang, Zhenze Zhao, Liqin Du, Alexander Pertsemliadis
Graduate School of Biomedical Sciences, Department of Cell Systems & Anatomy, University of Texas Health Science Center at San Antonio, Greehey Children's Cancer Research Institute, University of Texas Health Science Center at San Antonio, Department of Chemistry and Biochemistry, Texas State University, Department of Cell Systems & Anatomy, Department of Pediatrics, University of Texas Health Science Center at San Antonio,
- 11:30 - 11:45 a.m. **Loss of Rnf43 accelerates Kras-mediated pancreatic neoplasia through Wnt/b-catenin pathway**
 Abstract 7 Gita Dangol^{1,2}, Hiroshi Yamaguchi^{1,2}, Sonal Gupta^{1,2}, Bidyut Ghosh^{1,2}, Anirban Maitra^{1,2}
1Ahmed Center for Pancreatic Cancer Research, The University of Texas, MD Anderson Cancer Center, Houston, TX; 2Division of Pathology, The University of Texas MD Anderson Cancer Center, Houston, TX
- 11:45 a.m.-12:00 p.m. **Serum and Urinary Metabolomic Responses in Diabetic vs. Healthy Baboons**
 Abstract 8 Biswapriya B. Misra^{1,3}, Ram P. Upadhayay¹, Vicki L. Mattern¹, Laura A. Cox^{1,2}, Anthony G. Comuzzie^{1,2}, Michael Olivier^{1,2}, Jack W. Kent Jr.^{1,2}
1) Department of Genetics, Texas Biomedical Research Institute, San Antonio, Texas 2) Southwest National Primate Research Center, San Antonio, Texas
- 12:00-1:30 p.m. **Lunch on your own**

1:30-2:30 p.m.

INVITED ADDRESS 2

Emerging models of metabolism: Using *Drosophila* to explore the systemic coordination of energy homeostasis

Jason Karpac, Ph.D.

Assistant Professor, Department of Molecular and Cellular Medicine
Texas A&M University

2:30-3:30 p.m.

CONTRIBUTED PAPERS SESSION 3

2:30-2:45 p.m.

Impact of chronic EGFR inhibition on cardiotoxicity

Abstract 9 Selene Howe, David Threadgill
Texas A&M University

2:45-3:00 p.m.

A positive feedback loop involving sialidases potentiates pulmonary fibrosis

Abstract 10 Tejas R. Karhadkar, Darrell Pilling, Nehemiah Cox, and Richard H. Gomer
Department of Biology, Texas A&M University,

3:00-3:15 p.m.

Examining the relationship between Ca²⁺ ion homeostasis and carbohydrate metabolism in a *pgm2Δ* mutant strain in *Saccharomyces cerevisiae*

Abstract 11 Rebecca McDonald, Katrina Ngo, Ashley Charales, Sarah Smith, Vana Bahram, Krishna Patel, Aarthi Kannan, Keara Malone, Akshaya Selvamani, David P. Aiello
Department of Biology Austin College

3:15-3:30 p.m.

The role of *GPH1* overexpression in the rescue of a *pgm2Δ* strain of *Saccharomyces cerevisiae*

Abstract 12 Katrina Ngo, Rebecca McDonald, Ashley Charales, Sarah Smith, Vana Bahram, Krishna Patel, Aarthi Kannan, Keara Malone, Akshaya Selvamani, David P. Aiello
Department of Biology Austin College

3:30-5:00 p.m.

Reception, poster and exhibit viewing

7:00-9:00 p.m.

Banquet and Meeting Awards

Hilton Garden Inn
3081 University Drive
Bryan, Texas

**Barbara Bowman Award Recipient
Distinguished Texas Geneticist**

Ann M. Killary, Ph.D.

Professor, Translational Molecular Pathology
University of Texas MD Anderson Cancer Center

**Sponsored by: American Journal of Human Genetics
Editor, David Nelson, Ph.D.**

Saturday, April 29

7:30-8:25 a.m.

8:25-8:30 a.m.

8:30-9:30 a.m.

George Bush Presidential Library and Museum, College Station, Texas

Continental breakfast

Announcements - Erika Abel, Ph.D., TGS President

INVITED ADDRESS 3

Gene family evolution, adaptation and phenotypic convergence

Claudio Casola, Ph.D.

Assistant Professor of Forest Genomics, Dept of Ecosystem Science and Management
Texas A&M University

9:30-10:30 a.m.

CONTRIBUTED PAPERS SESSION 4

9:30-9:45 a.m.

Abstract 13

Simulating Variance Heterogeneity Genome Wide Association Studies

Ahmad Al Kawam, James Cai, Mustafa Alshawaqfeh, Erchin Serpedin, Aniruddha Datta

Electrical and Computer Engineering Texas A&M University - College Station, Veterinary Integrative Biosciences Texas A&M University - College Station,

9:45-10:00 a.m.

Abstract 14

Conservation genetics of the critically endangered Kemp's ridley sea turtle (*Lepidochelys kempii*)

Luis A. Hurtado, Xochitl De La Rosa and Mariana Mateos

Department of Wildlife and Fisheries Sciences, Texas A&M University

10:00-10:15 a.m.

Abstract 15

Muscle directs diurnal energy homeostasis through a myokine-dependent hormone module in *Drosophila*

Xiao Zhao and Jason Karpac

Dept. of Molecular and Cellular Medicine, Texas A&M University Health Science Center, College Station, TX

10:15-10:30 a.m.

Abstract 16

Identifying TGF- β regulators using the *C. elegans* roundworm model system

Lionel Faure, Katherine K. Beifuss, Mohammed Farhan Lakdawala, Tina L. Gumienny

Texas Woman's University, Lynntech, Texas Woman's University, Texas Woman's University

10:30-11:00 a.m.

Coffee break

11:00 a.m.-12:00 p.m.

CONTRIBUTED PAPERS SESSION 5

11:00-11:15 a.m.

Abstract 17

Microflora of the equine gut and its ramifications on the development of laminitis; A comparison of fecal and cecal diversity and Illumina and Roche

454 sequencers

Matthew J. Jevit, Josie Coverdale, Christine Warzecha, Jan E. Janecka

Department of Veterinary and Integrated Bioscience, Texas A&M University, College Station TX, 77843, Department of Animal Sciences, Texas A&M University, College Station TX, 77843,

Department of Animal Sciences, Texas A&M University, College Station TX, 77843,

Department of Biological Sciences, Duquesne University, Pittsburgh PA, 15282

11:15-11:30 a.m.

Abstract 18

Bovine chromosome 13 associated with brindle coat color in a Nellore-Angus cross.

K. Scienski, J. Elswood, C. A. Gill

Texas A&M University, College Station, TX, USA

- 11:30 -11:45 a.m. **Effect of a QTL on bovine chromosome 5 on beef cow stayability**
Abstract 19 Bailey N. Engle, Andy D. Herring, Jason E. Sawyer, David G. Riley, James O. Sanders,
Clare A. Gill
Texas A&M University, Texas A&M AgriLife Research, College Station, TX, USA
- 11:45 a.m.-12:00 p.m. **Genomic copy number variants in the Sorraia horse**
Abstract 20 Helena Josefina Kjöllnerström, Sharmila Ghosh, Maria M. Oom, Bhanu P. Chowdhary,
Terje Raudsepp
*Texas A&M University, College Station, TX & cE3c, Faculdade de Ciências, Universidade de
Lisboa, Lisboa, Portugal, Texas A&M University, College Station, TX, cE3c, Faculdade de
Ciências, Universidade de Lisboa, Lisboa, Portugal, Texas A&M University, College Station, TX,
Texas A&M University, College Station, TX*
- 12:00 - 12:30 p.m. **Coffee break and judges meeting**
- 12:30 p.m. **General Business Meeting**