

Texas Genetics Society 46th Annual Meeting
April 4-6, 2019
Texas A&M University Hotel and Conference Center
177 Joe Routt Boulevard
College Station, TX

Thursday, April 4

- 2:30-5:30 p.m. Student Training – Data Analysis in R Workshop provided by Heath Blackmon:
Ballrooms 3 & 4
- 3:30-5:30 p.m. Board Meeting: Honor Boardroom
- 5:30-6:00 p.m. Registration: Hallway outside of Ballrooms 3 & 4
- 6:00-6:05 p.m. Welcome and announcements – Jonathan Rios, Ph.D., TGS President:
Ballrooms 3 & 4
- 6:05-7:05 p.m. **INVITED ADDRESS 1**
Stress Responses and Germline Function in *C. elegans*
Pam Padilla
Professor- Associate Vice President for Research & Innovation-Associate Dean
of Research & Graduate Studies
University of North Texas
- 7:05-8:30 p.m. Exhibit viewing and reception: Hallway outside of Ballrooms 3 & 4

Friday, April 5

- 7:30-8:25 a.m. Late registration and continental breakfast, exhibit viewing: Hallway outside
of Ballrooms 3 & 4
- 8:25-8:30 a.m. Announcements – Jonathan Rios, Ph.D., TGS President: Ballrooms 3 & 4
- 8:30-9:30 a.m. **INVITED ADDRESS 2**
Forward Genetic Analysis of Immunity in Mice
Bruce Beutler
Regental Professor and Director of the Center for Genetics of Host Defense
University of Texas Southwestern Medical Center at Dallas
- 9:30-10:30 a.m. **CONTRIBUTED PAPERS SESSION I:** Ballrooms 3 & 4: moderated by Caleb
Phillips - Texas Tech University
- 9:30-9:45 a.m. **CISD-3.2 is required for germline development and function in**
Caenorhabditis elegans
Skylar D. King - University of North Texas

- 9:45-10:00 a.m. **Two paralogous znf143 genes encode for potent transcriptional activator proteins that participate equally in zebrafish development**
Laura Huning - Texas A&M University
- 10:00-10:15 a.m. **A lon-2 suppressor screen reveals genetic interactions between the DBL-1/BMP-like pathway and other body size determinants in *C. elegans***
M Farhan Lakdawala - Texas Women's University
- 10:15-10:30 a.m. **Genetic variants in TOMM40, MARK4, CLPTM1 and near VDAC1/FSTL4 associated with inverse comorbidity between late-onset Alzheimer's and cancer in a two-stage Bayesian GWAS of 9,765 individuals**
Gita A. Pathak – University of North Texas Health Science Center
- 10:30-11:15 a.m. **POSTER SESSION 1 (odd number poster judging)** coffee break and exhibit viewing: Hallway outside of Ballrooms 3 & 4
- 11:15-12:00 p.m. **Mentoring session with Invited Speakers:** Ballrooms 3 & 4
- 12:00-1:00 p.m. **Lunch sponsored by ThermoFisher:** Ballrooms 3 & 4
- 1:00-2:00 p.m. **CONTRIBUTED PAPERS SESSION 2:** Ballrooms 3 & 4: moderated by Tina Gumienny - Texas Women's University
- 1:00-1:15 p.m. **New insights into X-monosomy in the horse**
Alyssa Dubrow - Texas A&M University
- 1:15-1:30 p.m. **Single-cell transcriptomes reveal pro-tumorigenic effects of IGF-1 on mammary stem cells and luminal progenitors**
Linjie Luo - Texas A&M Health Science Center
- 1:30-1:45 p.m. **Population analysis of Saudi Arabian dromedary breeds identifies genes under selection**
Fahad Alshanbari - Texas A&M University
- 1:45-2:00 p.m. **Mode and tempo of microsatellite evolution in insects**
Michelle Jonika - Texas A&M University

2:00-2:45 p.m. **POSTER SESSION 2 (even number poster judging)** coffee break and exhibit viewing: Hallway outside of Ballrooms 3 & 4

2:45-4:00 p.m. **CONTRIBUTED PAPERS SESSION 3:** Ballrooms 3 & 4: moderated by David Aiello - Austin College

2:45-3:00 p.m. **Search for de-novo orphan genes- the neo holy grail of genomes?**
Komal K.B. Raja - Baylor College of Medicine

3:00-3:15 p.m. **Determining how genetic background affects carbohydrate restriction outcomes in mice**
Anna C. Salvador - Texas A&M University Health Science Center

3:15-3:30 p.m. **Mechanisms of Salmonella tolerance in the Collaborative Cross genetic reference mouse population**
Kristin Scoggin - Texas A&M University Health Science Center

3:30-3:45 p.m. **Patient genetics shape chronic wound microbiome composition and is associated with healing**
Craig D. Tipton – Texas Tech University

3:45-4:00 p.m. **Detailed structural and bioinformatic characterization of a novel class of bacterial isocitrate lyases (ICL-3) from *Pseudomonas* and *Burkholderia* species**
Adam J. Salazar - Texas A&M University

4:00-5:00 p.m. **Break on your own**

5:00-6:00 p.m. **Reception: Ballrooms 1 & 2**

7:00-9:00 p.m. **Banquet and Meeting Awards: Ballrooms 1 & 2**

Barbara Bowman Award Recipient

Brendan Lee M.D., Ph.D.

Molecular and Human Genetics, Baylor College of Medicine

Saturday, April 6

7:30-8:25 a.m. **Continental breakfast, poster viewing, exhibit viewing:** Hallway of Ballrooms 3 & 4

8:25-8:30 a.m. **Announcements – Jonathan Rios, Ph.D., TGS President:** Ballrooms 3 & 4

8:30-9:30 a.m.

INVITED ADDRESS 3

**The Genetic Basis for Ecological Adaptation in the Atlantic herring
Leif Andersson**

Professor

Uppsala University and at Texas A&M University

9:30-10:30 a.m.

CONTRIBUTED PAPERS SESSION 4: Ballrooms 3 & 4: moderated by Nicole Phillips - University of North Texas Health Science Center

9:30-9:45 a.m.

MglA, a Ras-like GTPase, regulates spore germination in the bacterium *Myxococcus xanthus*

Huan Zhang - Texas A&M University

9:45-10:00 a.m.

Powering lactation by taking out the trash

Jessica Elswood - Texas A&M University

10:00-10:15 a.m.

Molecular mechanisms underlying mitochondrial phosphatidylethanolamine import

Donna M. Iadarola - Texas A&M University

10:15-10:30 a.m.

A telomere protein goes rogue; novel functions for POT1b in the *Arabidopsis* stress response

Borja Barbero Barcenilla - Texas A&M University
Institution

10:30-11:00 a.m.

Poster viewing, coffee break, exhibit viewing: Hallway of Ballrooms 3 & 4

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

CONTRIBUTED PAPERS SESSION 5: Ballrooms 3 & 4: moderated by Michael Dickens – Texas A&M University

11:00-11:15 a.m.

A novel plant-specific structural element within the *Arabidopsis* telomerase RNA

Jiarui Song - Texas A&M University

11:15-11:30 a.m.

Investigating the effects of deletion of genes encoding Ca²⁺ channels of the plasma membrane and ER in a *pgm2Δ* mutant strain of *Saccharomyces cerevisiae*

Aarthi Kannan – Austin College

11:30-11:45 a.m.

Examining the role of TPS1 in *pgm2Δ* glycogen accumulation and calcium homeostasis defects in *Saccharomyces cerevisiae*

Sarah Smith – Austin College

11:45-12:00 p.m. **Utilizing a transcriptomic approach to analyze *spt4Δ*-mediated rescue of a *pgm2Δ* strain of *Saccharomyces cerevisiae***
Keara D. Malone – Austin College

12:00-12:30 p.m. **Coffee break and judge's meeting:** Hallway of Ballrooms 3 & 4, Flag Room
(for judge's meeting)

12:30 p.m. **General Business Meeting:** Ballrooms 3 and 4