Awards and Recognition

Skylar King and Dua Quedan were recipients of the Howard J. Arnott Student Competition Award for the Graduate Student Presentation Competition in Biological Sciences at the 2018 Texas Society for Microscopy Conference, which was held in Denton, TX. Skylar's PhD mentor is Dr. Pamela Padilla and Dua’s PhD mentor is Dr. Doug Root.

Undergraduate Matthew K. Jones received the First Place for the Best Student Poster Presentation at the Texas Society for Ecological Restauration Annual Conference, Denton, TX. His Poster title was “Comparative diet of Barn Owl (Tyto alba) and Long Eared-Owl (Asio otus) in a Blackland Prairie in north-central Texas.” Matthew was mentored by Dr. Jaime.E. Jiménez. Other co-authors include J.L. Baxter-Slye and K.L. Steigman.

Drew Sturtevant placed first, in concurrent session A, for best graduate student talk at the Southern Section of The American Society of Plant Biologists Conference, which was held in New Orleans. Drew’s poster title was “Metabolite Imaging and Transcriptome Analyses of Jojoba (Simmondsia chinensis) Seed Tissues Suggest Unexpected Differential Localization of Pathways for Storage Lipid Accumulation”. At the same conference, Akila Muthukumar placed first for best undergraduate poster titled “Evaluation of Cottonseed Protein and Oil Reserves in Wild Accessions Cotton (Gossypium sp.) grown under Rain-fed or Irrigated Conditions”. Both students are from Regent Professor Kent Chapman’s lab.

Staff Appointments

Jean-Christophe Cocuron joined the BioDiscovery Institute as a Research Scientist. He will manage the BioAnalytical Facility, and assist with metabolomics and lipidomics analyses. He has over fourteen years of experience in plant biochemistry with several peer-reviewed publications. He has spent the last seven years managing metabolomics facilities.

Dr. Cintia Arias joined the BioDiscovery Institute as a Postdoctoral Research Associate. She is working in Associate Professor Ana Alonso’s lab on a project aiming to develop resources and tools to improve oil content and quality in Pennycress. She obtained a PhD in Biological Science from Rosario National University (Argentina).

Tyler Swanson joined the BioDiscovery Institute as Research Assistant and Laboratory Manager. He is working in Associate Professor Ana Alonso’s lab on a project aiming to develop tools and resources for improvement of oil content and quality in Thalysia arvense. He obtained a Bachelor’s of Science in Agriculture from The Ohio State University and is originally from Columbus, Ohio.

Ademar Moreti joined the BioDiscovery Institute as a Research Assistant in Associate Professor Ana Alonso’s lab. He is working in a project that aims to unveil the metabolic interactions between different soybean varieties developed by traditional genetic crossbreeding by local farmers in order to select the most promising variety for fatty acid production. He holds a bachelor’s degree in Food Science from the University of Sao Paulo and before he joined UNT, he worked in the area of biotechnology for a Korean company to produce amino acids from bacterial fermentation. His fields of study are biotechnology, microbiology and metabolomics.
Thesis and Dissertations

Amrita Pal successfully defended her PhD dissertation titled “Identification of the Neurobiological Basis of Hemodynamic Responses Correlated with Cognitive Stroop Task Performance After an Acute Bout of Aerobic Exercise” on March 8, 2018. Amrita’s graduate advisor was University Distinguished Research Professor Dr. Warren Burggren.

Recent Publications


Extramural Grants and Contracts

Engineering Seed Value in Cotton - Strategies to Modify Seed Quality. Cotton Incorporated. PI: Kent D. Chapman. $55,000

Embryogenic Cell Culture Screening System for Herbicide Tolerance. BASF Plant Science, LP PI: Kent D. Chapman. $126,686

IRES: Cross-cutting interdisciplinary research and integration of ecology and biocultural conservation in the world’s southernmost forests. National Science Foundation- International Research Experiences for Students. PI: J.E. Jiménez, Co-PIs R. Rozzi and J.H. Kennedy. $249,963

Seminars/ Talks


Active Learning Activities in Large Classes. Texas Branch-American Society for Microbiology Spring Meeting, New Braunfels, TX. Presentation by Dr. Lee Hughes. March 24, 2018.


Ceramides localize to granules within the centrosomes and P cell of C. elegans embryos. 53rd Annual Texas Society of Microscopy Meeting, Denton, TX 2018. Student oral presentation by Skylar King. Co-author, Dr. Pamela Padilla.

Cooperative activation of striated muscle thick filaments by S2 binding. Texas microscopic meeting, Denton, Texas. February 24, 2018. Presentation by Dua Quedan. Won the best presentation award.


How important is cavity provisioning by Magellanic Woodpeckers? A case study in the world’s southernmost forests. Joint meeting of the American Ornithological Society (135th) and the Society of Canadian Ornithologists (35th), East Lansing, MI. Wynia, A.L. (Ph.D. student), R. Rozzi and J.E. Jiménez


Lipid Droplet Biogenesis in Plants. The Nathan Edward Tolbert Endowed Lectureship in Biochemistry (Kent D. Chapman- presenter). Department of Biochemistry and Molecular Biology, Michigan State University, East Lansing, MI, March 22, 2018

Metabolite Imaging and Transcriptome Analyses of Jojoba (Simmondsia chinensis) Seed Tissues Suggest Unexpected Differential Localization of Pathways for Storage Lipid Accumulation. Southern Section of the American Society of Plant Biologists, New Orleans, LA. Drew Sturtevant (presenter), David J. Burks, and Kent D. Chapman. March 24-26, 2018


Jones, M.K (undergraduate student), and Jiménez, J.E. Barn Owl (Tyto alba) and Long Eared-Owl (Asio otus) diet in a Blackland Prairie in north-central Texas. America’s Grasslands Conference, Fort Worth, TX.

Jones, M.K (undergraduate student), Jiménez, J.E., Baxter-Slye, J.L., and Steigman, K.L. Comparative diet of Barn Owl (Tyto alba) and Long Eared-Owl (Asio otus) in a Blackland Prairie in north-central Texas. Texas Society for Ecological Restoration Annual Conference, Denton, TX. First Place Best Student Poster Presentation Award.


Lund, A.K. and McDonald, J.D. Inhalation Exposure to Traffic-Generated Air Pollutants Results in Increased Plasma Angiotensin II and Angiotensin II Type 1 Receptor Expression in the Vasculature, Kidneys, and Adipocytes of C57Bl/6 Wildtype Mice. Society of Toxicology Conference: Air Pollution Toxicology, San Antonio, TX. March 2018.

Maneekul, J. and Hughes, L.E. Correlation between Streptomyces griseus Phages’ Genome Length and their Burst Time and Burst Size. Texas Branch – ASM Spring Meeting, New Braunfels, TX. March 2018


Muthukumar, A., Sturtivant, D., Hugie, K., Campbell, B.T., and Chapman, K.D. Evaluation of Cottonseed Protein and Oil Reserves in Wild Accessions Cotton (Gossypium sp.) grown under Rain-fed or Irrigated Conditions. Southern Section of the American Society of Plant Biologists, New Orleans, LA. April 24-26.


Phipps, B., Li, A., Morales, C., Nguyen, T.L., Bhuiyan, S., and Hughes, L.E. Experiment to Demonstrate the Programmed Translational Frameshift in Tail Assembly Chaperone Genes of Streptomyces phage BryanRecycles. Texas Branch – ASM Spring Meeting, New Braunfels, TX. March 2018


