

BlOsphere

March 2024

Warch 2024

Volume 11 Issue 1

Awards and Recognitions

Dr. Jannon Fuchs is the recipient of the 2024 Ulys and Vera Knight Faculty Mentor Award, and **Dr. Pudur Jagadeeswaran** has been recommended by the Provost for the honorable appointment as a new UNT Regents Professor. The Board of Regents reappointed **Dr. Kent Chapman** as a Regents Professor. The <u>Ulys & Vera Knight Faculty Mentor Award</u> recognizes a UNT faculty member who demonstrates sustained excellence in mentoring undergraduate students, graduate students, and/or other faculty. Mentoring may include support and guidance in the areas of teaching, research, service, academic achievement and/or professor who have performed outstanding teaching, research and service to the profession, and who have achieved a high level of national and international recognition.

Dr. Vladimir Shulaev was selected by the U.S. Department of State and the Fulbright Program as a Fulbright U.S. Scholar for 2024-2025 for Chile. Fulbright Scholar Awards are prestigious and competitive fellowships that provide unique opportunities for scholars to teach and conduct research abroad. Fulbright scholars also play a critical role in U.S. public diplomacy, establishing long-term relationships between people and nations. Alumni of the Fulbright Program include 62 Nobel Laureates, 89 Pulitzer Prize winners, 80 MacArthur Fellows, and thousands of leaders and world-renowned experts in academia and many other fields across the private, public, and non-profit sectors.

Dr. Jyoti Shah is the recipient of the 2024 <u>Decker Scholar Award</u>, which recognizes outstanding research in the natural sciences, computational sciences, or technology at the University of North Texas. Dr. Shah's research is focused on immunity in plants, including understanding the molecular and physiological underpinnings of systemic acquired resistance, which confers immunity against a broad-spectrum of pathogens, identifying genes that contribute to defense and susceptibility to the green peach aphid and the fungal pathogen *Fusarium graminearum*, and developing effective strategies for enhancing resistance in wheat to Fusarium head blight disease.

Dr. Jaime Baxter-Slye received a UNT Presidential Award: 2024 University of North Texas President's Community Award. The <u>UNT Community Award</u> honors students, faculty or staff members for outstanding service that has enriched the UNT experience for the UNT community. This outstanding service is characterized by consistent and meaningful involvement in the campus community with servant-leadership. The president selects the recipients and presents the awards as the occasion arises. Over the years, Dr. Baxter-Slye has engaged students to learn and value environment, and in conservation and sustainability efforts. She has led student involvement with <u>iNaturalist</u>, worked with the Division of Student Affairs to establish UNT as a <u>Bee Campus USA</u> and <u>Bird Campus USA</u>, and has led efforts to procure funding and develop the <u>Pecan Creek Pollinative Prairie</u>.

The Department of Biological Sciences Instructional Lab Personnel team was selected for the '2024 Teamwork Award' that recognizes cross-divisional staff work groups who collaborate outside their traditional reporting unit to meet institutional goals or needs. The hard work, commitment and dedication of this team, which includes Dr. Jaime Baxter-Slye, Dr. Arland Alberts, Dr. Syeda Alam, Dr. Andrea Bernardino, Claudia Gonzalez Villarreal, Anthony Curran, Ipsita Lahiri, Geoffrey (Lance) Brooks, Nathaniel Peterson, Carey Earthman, Wendy Pace, and Denice Gallagher, is critical for the success of department programs and ensuring that instructional labs provide experiential learning to over 2600 students. As enrollment has grown, instructional lab personnel's responsibilities have also increased, requiring them to continuously improvise and adjust lab offerings to meet instructional needs. The COVID pandemic was a testing time for the team that showcased their teamwork in surmounting all challenges to transition labs from in-person to remote offering, and subsequently to in-person offering with social distancing. In addition, the

instructional lab personnel were also instrumental in helping get Biology's Frisco labs operational. Lab offerings at Frisco have more than tripled since the initial single on-campus and two remote lab offerings in Fall 2020. This team also has a large role in training, guiding and supporting graduate teaching assistants. A large thanks also to **Kim Piccolo** for the leadership and supervision she has provided to this wonderful team.

In Memoriam: The Instructional Lab Personnel share the 2024 Teamwork Award with valued Team member, **Roxana Bejarano Hughes** ('97 M.S.), who tirelessly and joyfully served students in her role as Microbiology Lab Supervisor from 2002-2021. May Roxana's legacy live on through the students, team members, faculty, and staff whose lives she touched.





Dr. Jannon Fuchs

Dr. Pudur Dr. Jagadeeswaran



Dr. Vladimir Shulaev in Chile



Dr. Jyoti Shah

Dr. Jaime Baxter-Slye



Pictured (bottom) Deni Gallagher, Jaime Baxter-Slye, Syeda Alam, (middle) Claudia Gonzalez Villarreal, Andrea Bernardino, Anthony Curran, Jr., Arland Alberts, Ipsita Lahiri, Sr. VP-Student Affairs-Elizabeth With, (back) Kahylen Minniefield, G. Lance Brooks, Wendy Pace, Nathaniel Peterson. Not pictured: Carey Earthman. 2024 Teamwork Award Winners

Christophe Cocuron, BioAnalytical Core Facility Manager at the BioDiscovery Institute received the Staff Excellence in Research Award. This award recognizes the contributions of a staff member who provides excellent service to our research enterprise. The BioAnalytical Facility (BAF) is one of the most well-run core facilities on campus, due in no small part to Christophe's efforts. The facility serves UNT researchers and students while also generating revenue through external clients. Christophe participates in training students and postdocs, often working with them on publications, troubleshooting and methods development. Over the past year, he has worked proactively with Facilities and other campus partners to maintain the BAF's productivity during building renovations, power outages and IT issues. He's also gone beyond management and technical work, publishing scientific journal articles with BAF users and taking on additional responsibilities during staff shortages. Because of his conscientious oversight, the BAF directly contributes to the growth of research activity and expenditures at UNT.

Crystal Garrett-McEwen is the January 2024 recipient of the COS Excellence in Mastering Challenges Continuously (E=mc²) Staff Award. For her distinguished track record of conscientious work supporting our faculty, staff, and students, she received a voucher for a free meal at Avesta. The E=MC2 award was established by Dean Quintanilla to recognize outstanding efforts among full-time staff members within the College of Science and its departments. More on Crystal's award can be found at: https://cos.unt.edu/news/crystal-garrett-mcewenreceives-january-cos-emc%C2%B2-award

Amira Rasoul, Ph.D. student in the Alonso Lab, was awarded a \$500 travel grant from the UNT College of Science, and a \$500 travel grant from the UNT BioDiscovery Institute to present her work at the Southern Section of the American Society of Plant Biologists in Dauphin Island, AL (March 2024).

Debasish Ghosh, graduate student in Dr. Shulaev Lab, received the Graduate Student Research Travel Award for the 2023-2024 academic year offered by the Toulouse Graduate School.

Faculty and Staff Service Awards

The following twenty-two Department of Biological Sciences, BioDiscovery Institute (BDI), BioAnalytical Facility (BAF) and Advanced Environmental Research Institute (AERI) faculty and staff were recognized for their combined 240 years of service with the University of North Texas during the annual Service Awards event on March 27th, 2024. CONGRATULATIONS to all our Service Award honorees!

Celebrating 5 years

Ana Alonso Mauricio Antunes Kelly Basinger Jean Christophe Cocuron Ying Li Jessica Moore Ryan O'Shaughnessy Anil Girija Claudia Gonzalez Villareal Sarah Houdek

Celebrating 10 years Jaime Baxter Slye Lance Brooks Chan Man Ha Ipsita Lahiri Roisin McGarry Gail Lynett Shadle **Celebrating 25 years**

Warren Burggren

Celebrating 15 years Martha Frantz Shanmukh Salimath

Celebrating 30 years

Kent Chapman

Celebrating 20 years Brian Ayre

Celebrating 35 years Jannon Fuchs

Faculty and Staff Appointments

Dr. Bojun Chen has joined the Department of Biological Sciences as an Assistant Professor. He received his PhD from Peking University in China in 2004. Subsequently he worked as a postdoctoral fellow and research associate at the University of Connecticut Health Center. Before joining UNT, Dr. Chen was an assistant professor at Southern Illinois University School of Medicine. Dr. Chen's research centers around the molecular mechanisms of synaptic transmission using the nematode C. elegans as a model organism.

Dr. James Junker has joined the Department of Biological Sciences as a Research Assistant Professor. He received his Ph.D. in Ecology and Environmental Sciences from Montana State University and was a postdoc at Michigan Technological University. His research focuses on the connections between biodiversity and ecosystem function, particularly the dynamics of food webs and their role in the cycling of energy and matter through aquatic ecosystems.

Dr. Juliana D'Andrilli has joined the faculty as an Associate Professor in the Department of Biological Sciences at UNT in January of 2024 and is excited to expand on her biogeochemical and carbon cycling research program with the molecules of dissolved organic matter in the spotlight! She values interdisciplinary and creative avenues for learning and is looking forward to sharing that with students at UNT. Dr. D'Andrilli obtained her B.S. in Chemistry in 2003 from Mary Washington College (Fredericksburg, Virginia), worked as a chemist at Estee Lauder's Research & Development Park for a year (Melville, New York), and then obtained a Ph.D. in Physical Chemistry in 2009 from Florida State University (Tallahassee, Florida). She completed two postdoctoral appointments at Montana State University and was an Assistant Research Professor there for five years before joining the faculty as an Assistant Professor at the Louisiana Universities Marine Consortium (Chauvin, Louisiana) in 2019.





Dr. James Junker



Dr. Juliana D'Andrilli

Debasish Ghosh

Crystal Garrett-McEwen with Dean Dr. John Quintanilla





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The first ever UNT Society for Ecological Restoration (SER) and UNT American Great Backyard Bird Count by The UNT Fisheries Society game night occurred in March, bringing together these awesome

Bird Campus Committee and the UNT Pollinative Prairie Committee

The UNT Bee Campus installed the first bee hotels around the Willis Library rockwall. This project is a WMGF grant by Ethan Philips.

The UNT Society for Ecological Restoration (SER) and the UNT Aquatic Plant Crew conducted a bathymetry assessment of the retention pond at the Diamond Eagles Community Learning Area and Pollinative Prairie (Discovery Park). This project is growing over 2,000 native Texas aquatic plants from 9 species in the ENV greenhouse to be installed at the pond on April 6th 9am to noon.

The UNT Bird Campus Committee reports more successful Eastern Bluebird box, with four chicks currently in the Pollinative Prairie box. Students have been maintaining boxes since last year. In addition, they installed a bird feeder with camera in February.



The UNT Society for Ecological Restoration and the UNT Aquatic Plant Crew growing native Texas aquatic plants

expression of fungal megasynthase genes in Nicotiana benthamiana leaves.

The UNT Bird Campus Committee and the UNT Pollinative Prairie Committee cohosted 2024 Great Backyard Bird Count at the Diamond Eagles Community Learning Area & Pollinative Prairie. The most excellent array of donuts was provided with coffee. Thirty-four species of birds were recorded. Professor Morrow and Giron were delightful guides. Cold, but really fun!! https://ebird.org/checklist/S161843704

Graduate Student and Staff News

Undergraduate Student News

Kelly Camacho is a UNT biology major and one of the most recent recipients of UNT's Kuehne Speaker Series Scholarship, one of the largest donor-funded scholarships at UNT! Kuehne Scholars receive a life-changing \$25,000 scholarship along with mentorship and networking opportunities to help set them up for academic and career success. More on Kelly's award can be found at: https://cos.unt.edu/news/undergraduate-student-spotlight-kelly-camacho.

Thesis and Dissertation

She is glad to be back at UNT.

organizations for a night of fun!

Congratulations to our graduate students who successfully defended their thesis/dissertation.

John Evers successfully defended his PhD dissertation titled "Phloem Loading and Carbon Transport Enhancement in Woody Plants" on March 27th, 2024. John's major advisor was Dr. Brian Ayre.

Jonathan David Elliot successfully defended his PhD dissertation titled, ""GFAP Polarity and Primary Cilia in Astrocytes of the Mouse Brain" on January 12th,2024. His major advisor was Dr. Jannon Fuchs. Jonathan is working as a Senior Research Associate in Neuro-Oncology at UT Southwestern Medical Center.

Kaitlynn Davis successfully defended her MS thesis titled, "An Evaluation OF Chironomidae Pupal Exuviae as Indicators of Changing Environmental Quality in North Central Texas Ponds Along an Urban Gradient" on 25th March 2024. Kaitlynn is currently employed by the Tarrant County Public Health Department as a Vector Control Specialist. Her major advisor is Dr. James Kennedy.

Manuel Ruiz successfully defended his PhD dissertation titled, "Analysis of the impact of hyperglycemia on neuronal functions using genetic approaches in C.elegans." He will be joining Stanford University - School of Medicine as a postdoctoral fellow in the following months. Manuel's major advisor was Dr. Pamela Padilla.

UNT SER and UNT American

Fisheries Society game night



Kelly Camacho



John Evers

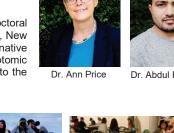


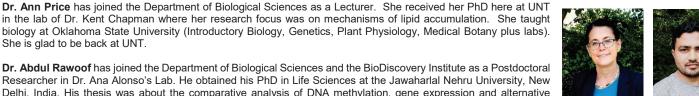


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Dr. Abdul Rawoof

Delhi, India. His thesis was about the comparative analysis of DNA methylation, gene expression and alternative splicing in different Capsicum species. His current postdoctoral research involves metabolomic and transcriptomic analyses to understand the effects of perturbations of metabolic pathways, and their associated genes, due to the **Supuni Silva** successfully defended her PhD dissertation titled, "Understanding Undergraduate STEM Identity through Structural Equation Modeling: The Significance of Informal STEM Experiences and the Interplay Between STEM Identity and Graphical Literacy" on March 4th, 2024. Her major advisor was Dr. Rudi Thompson.

Tanvi Qadri successfully defended her MS thesis titled, "Understanding Antibiotic Effects on Microbial Growth in *Anopheles stephensi* Mosquitoes: Correlating Optical Density Measurements with qPCR Analysis". Her major advisor was Dr. Vanessa Macias. She is currently looking for job opportunities that matches her skill set.

Wendy Pace successfully defended her PhD dissertation titled, "Trypanosoma Cruzi: Awareness and knowledge levels of professional "Dog People", exposure rates in a select group of North Texas client owned dogs, and a historical perspective of screening efforts in domestic dogs" on Marth 27th 2024. Her major advisor was Dr. Joseph Oppong.



Tanvi Qadri Wendy Pace

Extramural Grants and Contracts

Pest- and pathogen-resistant cotton through gene editing. Cotton Incorporated, National Program. PIs Brian G Ayre and Roisin C McGarry, \$30,000.

Publications

Bhat, E.H., Henard, J.M., Lee, S.A., McHalffey, D., Ravulapati, M.S., Rogers, E.V., Yu, L., Skiles, D., and Henard C.A. Construction of a broad-host-range Anderson promoter series and particulate methane monooxygenase promoter variants expand the methanotroph genetic toolbox. Synthetic and Systems Biotechnology, Volume 9, Issue 2, 2024 Feb 19, Pages 250-258, ISSN 2405-805X, <u>https://doi.org/10.1016/j.synbio.2024.02.003</u>.

Burggren W, Fahlman A, Milsom W. Breathing patterns and associated cardiovascular changes in intermittently breathing animals: (Partially) correcting a semantic quagmire. Exp Physiol. 2024 Mar 19. doi: 10.1113/EP091784. PMID: 38502538 Review.

Burgos-Edwards A, Theoduloz C, Miño S, Ghosh D, Shulaev V, Ramírez C, Sánchez-Jardón L, Rozzi R, Schmeda-Hirschmann G. Phenolic composition and bioactivity of *Ribes magellanicum* fruits from southern Patagonia. Heliyon. 2024 Feb 11;10(4):e25542. doi: 10.1016/j.heliyon.2024.e25542. <u>https://www.cell.com/heliyon/fulltext/S2405-8440(24)01573-1</u>

Cocuron JC, Alonso AP. 13C-labeling reveals non-conventional pathways providing carbon for hydroxy fatty acid synthesis in Physaria fendleri. J Exp Bot. 2024 Mar 14;75(6):1754-1766. doi: 10.1093/jxb/erad343. PMID: 37668184

Contador, T., Maturana, C., Gañan, M., Rendoll-Cárcamo, J., Troncoso-Villar, M., Kennedy, J. H., Convey, P., Krzeminska, E., Kim, S., Lobos, I., Piñeiro, A., Hernandez, J., Benítez, H. A. (2024). When ice and sea are not barriers for flies: First report of *Trichocera maculipennis* (Diptera) in South America. Insect Conservation and Diversity, 1–13. DOI: 10.1111/icad.12714

Coxe T, Burks DJ, Singh U, Mittler R, Azad RK. Benchmarking RNA-Seq Aligners at Base-Level and Junction Base-Level Resolution Using the Arabidopsis thaliana Genome. Plants (Basel). 2024 Feb 21;13(5):582. doi: 10.3390/plants13050582. PMID: 38475429

Crossley DA 2nd, Bagatto BP, Dzialowski EM, Burggren WW, Hicks JW. Short communication: Baroreflex function in embryonic emus (Dromiceius novaehollandiae). Comp Biochem Physiol A Mol Integr Physiol. 2024 Apr;290:111576. doi: 10.1016/j.cbpa.2024.111576. Epub 2024 Jan 12. PMID: 38220129

Crossley DA 2nd, Crossley JL, Conner JL, Smith B, Elsey R, Nelson D, Wang T. Short communication: Characterizing arterial and venous blood gases over the gas exchange surface, the chorioallantoic membrane, of embryonic American alligators (Alligator mississippiensis) at two points of development.

Comp Biochem Physiol A Mol Integr Physiol. 2024 Apr;290:111575. doi: 10.1016/j.cbpa.2024.111575. Epub 2024 Jan 12. PMID: 38220130

Cummins JB, Crossley DA 2nd. Cardiovascular physiology of embryonic neotropic cormorants (*Phalacrocorax brasilianus*). Comp Biochem Physiol A Mol Integr Physiol. 2024 Jan;287:111539. doi: 10.1016/j.cbpa.2023.111539. Epub 2023 Oct 24. PMID: 37884170

Delmer, D., Dixon, R.A., Keegstra, K. and Mohnen, D. (2024). The plant cell wall—dynamic, strong, and adaptable—is a natural shapeshifter. Plant Cell (ASPB Centenary Issue), <u>https://doi.org/10.1093/plcell/koad325</u>.

Dixon, R.A. and Dainton, J. (2024). Guest-editing under the spotlight. Philosophical Transactions of the Royal Society B, 379: 20230478. https://doi.org/10.1098/rstb.2023.0478.

Dixon, R.A. and Dickinson, A.J. (2024). A century of plant secondary metabolism- from "what?" to "where, how, and why?" Plant Physiology (ASPB Centenary Issue) <u>https://10.1093/plphys/kiad596</u>.

Dixon, R.A., Puente-Urbina, A., Beckham, G.T., Román-Leshkov, Y. (2024). Enabling lignin valorization through integrated advances in plant biology and biorefining. Annual Review of Plant Biology 75: 6.1-6.25.

Emadi, C., Dos Santos Neto, F., Smithers, B., Acevedo, M., and Mager, E. (2024) Toxicity Assessment and Real-Time Metabolic Trait Responses of Juvenile *Macrobrachium rosenbergii* to Ammonia Exposure at Different Salinities. Texas Chapter of the American Fisheries Society Annual Meeting, Nacogdoches, TX.

Göpel T, Burggren WW. Temperature and hypoxia trigger developmental phenotypic plasticity of cardiorespiratory physiology and growth in the parthenogenetic marbled crayfish, Procambarus virginalis Lyko, 2017. Comp Biochem Physiol A Mol Integr Physiol. 2024 Feb;288:111562. doi: 10.1016/j.cbpa.2023.111562. Epub 2023 Dec 17. PMID: 38113959

Gore S, Meche B, Shao D, Ginnett B, Zhou K, Azad RK. DiseaseNet: a transfer learning approach to noncommunicable disease classification. BMC Bioinformatics. 2024 Mar 11;25(1):107. doi: 10.1186/s12859-024-05734-5. PMID: 38468193

Horn PJ, Chapman KD. Imaging plant metabolism in situ. J Exp Bot. 2024 Mar 14;75(6):1654-1670. doi: 10.1093/jxb/erad423. PMID: 37889862

Ji L, Zhang Z, Liu S, Zhao L, Li Q, Xiao B, Suzuki N, Burks DJ, Azad RK, Xie G. The OsTIL1 lipocalin protects cell membranes from reactive oxygen species damage and maintains the 18:3-containing glycerolipid biosynthesis under cold stress in rice. Plant J. 2024 Jan;117(1):72-91. doi: 10.1111/tpj.16470. Epub 2023 Sep 27. PMID: 37753661

Lu, N. (2024) Revisiting decade-old questions in proanthocyanidin biosynthesis: current understanding and new challenges. Front. Plant Sci. 15:1373975. doi: 10.3389/fpls.2024.1373975

Sundaramoorthi H, Fallatah W, Mary J, Jagadeeswaran P. Discovery of seven hox genes in zebrafish thrombopoiesis. Blood Cells Mol Dis. 2024 Jan;104:102796. doi: 10.1016/j.bcmd.2023.102796. Epub 2023 Aug 30. PMID: 37717409

van Casteren A, Sellers WI, Crossley DA 2nd, Costello LM, Codd JR. Shell shape does not accurately predict self-righting ability in hatchling freshwater turtles. Sci Rep. 2024 Feb 28;14(1):4919. doi: 10.1038/s41598-024-54191-w. PMID: 38418502

Oral Presentations

A Laser Microdissection System to Enhance Agricultural and Food Research in the North Texas and Southern Oklahoma Region. BioDiscovery Institute Seminar Series, University of North Texas, Denton, TX. Talk presented by Dr. Brian G Ayre, Mar. 4, 2024. Co-authors, Roisin C McGarry, Vanessa Macias, Patrick Horn, and Jyoti Shah.

An unconventional proanthocyanidin pathway in maize, Denton Texas, March 4, 2024, Invited Seminar, BioDiscovery Institute by Nan Lu.

Disrupted oxylipin biosynthesis mitigates pathogen infections and pest infestations in cotton (*Gossypium hirsutum*). BioDiscovery Institute Seminar Series, University of North Texas, Denton, TX. Talk presented by Dr. Roisin C McGarry, Feb. 19, 2024. Co-authors, Yen-Tung Lin (PhD candidate), Harmanpreet Kaur (MS graduate), Harrison Higgs (undergraduate), and Dr. Brian G Ayre.

Disrupted oxylipin biosynthesis mitigates pathogen infections and pest infestations in cotton (*Gossypium hirsutum*). Plant and Animal Genome Conference / PAG 31, San Diego, CA., January 12-17, 2024. Invited talk by Dr. Brian G Ayre. Co-authors Dr. Roisin C McGarry, Yen-Tung Lin (PhD candidate), Harmanpreet Kaur (MS graduate), Harrison Higgs (undergraduate), Dr. Omar Arias-Gaguancela.

Disrupted oxylipin biosynthesis mitigates pathogen infections and pest infestations in cotton. 2024 Beltwide Cotton Conference, Fort Worth, TX., January 3-5, 2024. Invited talk by Dr. Brian G Ayre. Co-authors Dr. Roisin C McGarry, Yen-Tung Lin (PhD candidate), Harmanpreet Kaur (MS graduate), Harrison Higgs (undergraduate), Dr. Omar Arias-Gaguancela.

Elucidating the Cellular Machinery for Lipid Storage in Plants, Denton Texas. March 18, 2024, Invited Seminar, BioDiscovery Institute by Yingqi Cai.

Multi-omics Investigation into the Synthesis of Fatty Acids in Alternative Crops. Interdisciplinary Plant Group Seminar Series, University of Missouri, Columbia, MO, February 2024. Invited seminar by Dr. Ana P. Alonso.

Conference Poster Presentations

Girija, A., Nair, S., Shah, S., Alapatt, B., Twayana, M., Shah, J. ER-PM contact site regulate plasmodesmal localization of an insect resistance protein in Arabidopsis. Poster presented by Dr. Anil Grija. Annual meeting of the American Society of Biochemistry & Molecular Biology, San Antonio, TX; March 23-26, 2024.

Mittal, I., Alam, S., Chabra, B., Shulaev, E., Mohan, V., Girija, A., Rawat, N., Dong, Y., Trick, H. N., Scofield, S., Shah, J. Characterizing the contribution of plant 9-lipoxygenase in susceptibility to the Fusarium head blight fungus, Fusarium graminearum. Poster presented by Isha Mitta. Annual meeting of the American Society of Biochemistry & Molecular Biology, San Antonio, TX; March 23-26, 2024.

Rasoul, A., Johnston, C., Alonso, A.P. (2024). Pennycress Powerhouse: Tailoring Fatty Acids for Jet Fuel Production. Southern Section of the American Society of Plant Biologists annual meeting, Dauphin Island Sea Lab, Dauphin Island, AL.

BIOsphere is a quarterly newsletter of the Department of Biological Sciences, University of North Texas

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