**The Texas A&M University System Pathways Student Research Symposium**

**2022**

**Award Winners**

(Listed by presentation type, student level and discipline.)

**Poster Presentation Competition**

*Undergraduate Presentations*

**Agriculture & Natural Resources**

1. **Faith Isabelle**, Prairie View Texas A&M University, [*The Effects of Nitrogen Rate on the Growth of Green Malabar Spinach (Basella alba L.) in Sandy Loam Soil in Southeast Texas*](https://drive.google.com/file/d/1_64_CPxKhwgY2gbsutdmRvRlVwqkdADd/view?usp=sharing)*.*
2. **Lenaye Palmer**, Prairie View Texas A&M University, [*Analyzing the microbial population on the fresh produce collected from the community garden*](https://drive.google.com/file/d/1-I7GKVp24EAXWmkNlvW1VPBI0YFpjd3s/view?usp=sharing)*.*
3. **A’naya Ware**, Prairie View Texas A&M University, [*Morphological and phytochemical diversity of grain-type industrial hemp (Cannabis sativa)*](https://drive.google.com/file/d/1CQEotr79TBXGWO0gFdWddsByz8OAuwcq/view?usp=sharing)*.*

**Biomedical & Health Sciences**

1. **Ananya Pillai**, Texas A&M University – College Station, [*Self-Powered Implantable Pacemaker- will it become a reality?*](https://drive.google.com/file/d/17DxiFTZN55FnCHC38DpHB-XHh36Jg8_7/view?usp=sharing)
2. **Anil Pournouri**, Texas A&M University – Texarkana, [*Hypertensive Stimuli Increases Lymphangiogenesis in Human Lymphatic Endothelial Cells*](https://drive.google.com/file/d/1xwVWSs43_LjW5StL8B5fzsNKAjUHFqk0/view?usp=sharing)*.*
3. **Samhitha Ramanuja & Devon Roeming**, Texas A&M University – College Station, [*AAV9/shRNA Knockdown of RANKL Protein Expression Utilizing Systemic Intraperitoneal Injections to Inhibit NADPH Oxidase-2*](https://drive.google.com/file/d/1CB_R9qQ0myX6vo1nb1xodMrSGVhSBAkJ/view?usp=sharing)*.*

**Business & Information Technology**

1. **Kylea Marlow**, Tarleton State University,

**Education**

1. **Elpida Cervantes**, Tarleton State University, [*Using the Student Perception Survey to Cultivate a Community of Care in the 5th Grade Classroom.*](https://drive.google.com/file/d/1cBgxMdlwJ9u_C2zJwWahmEmqMNBKUxC7/view?usp=sharing)

**Engineering & Computer Science**

1st Place

2nd Place

2nd Place

3rd Place

3rd Place

**Michael Ramos & Joseph Saenz**, Texas A&M University – Kingsville, [*Updating the Historical Records of the Carrizo-Wilcox Aquifer Groundwater Availability Model for Improved Model Predictions.*](https://drive.google.com/file/d/1QyQMUZRvgGewQZTAjRJ7NsJVISRYOw1Q/view?usp=sharing)

**Jose Falcon,** Texas A&M University – Corpus Christi, [*Image Processing through ArUco Marker Instruction in a UAV System and IoT Application.*](https://drive.google.com/file/d/1XLXA_UU6E0j5FzHU2CI0d-ylWUvG8d7P/view?usp=sharing)

**Ian Lopez**, Texas A&M International University, [*Improving CO2 storage and oil recovery in shale oil reservoirs using dual lateral wells.*](https://drive.google.com/file/d/1Rl1bB67y9FApSsyQbEKX5tIfgjg8aWog/view?usp=sharing)

**Jackson Black & Zackery Watson,** Tarleton State University, [*Design and Fabrication of Space Exploration Vehicle for Extraterrestrial Terrain*.](https://drive.google.com/file/d/1nqwf81fdikxqFu_Xmv5I0XxDOlajgpiV/view?usp=sharing)

**Tyler Pillman & Hannah Rudewick**, Texas A&M University - College Station, [*Developing a method to scale the degree of packing in MAP scaffolds*](https://drive.google.com/file/d/1pJj28BKtmiBu3R7ysX38fz-2bKLsmnbB/view?usp=sharing)

**Life Sciences**

1st Place

2nd Place

3rd Place

3rd Place

**Abcde Cirilo**, Texas A&M University – Kingsville, [*Effects of Snake Venom CRiSPs on the Production of Cytokines in Human Dermal Blood and Lympatic Endothelial Cells.*](https://drive.google.com/file/d/1ugnL4kLHrpgSm6gPyYv4TnHuDYN9waHk/view?usp=sharing)

**Diksha Shakya**, Texas A&M University – Commerce, [*CAV1-Rho pathway mediates G1P3-induced Breast cancer cell migration.*](https://drive.google.com/file/d/1Eot8v6xAfS9q1HoqwVbMqnsio983prgD/view?usp=sharing)

**Elizabeth Carrillo**, Texas A&M University – Corpus Christi, [*In-Vitro Analysis of the Contribution of S-Nitrosylation to the Learning-Induced Neuronal Plasticity in the Mollusk Aplysia*](https://drive.google.com/file/d/1uwC7viic1irwk2h0m6Zke8bl5rmeJwWG/view?usp=sharing)

**Eliza Perez**, Texas A&M University – Galveston, [*Mechanical Properties of Kemp’s Ridley (Lepidochelys kempii) and Loggerhead (Caretta caretta) Sea Turtle Rhamphothecae.*](https://drive.google.com/file/d/1uwSMuGWNq0u6tsjtgmytGkirpW1IS-de/view?usp=sharing)

**Mathematics & Physical Science**

1. **Caroline Valdes**, Texas A&M University – College Station, [*Formation of Polyetherimide Nanocomposite Coatings for Maximization of Corrosion Inhibition of Base Metals.*](https://drive.google.com/file/d/1g1WMKkW727AY7Oo0_PMhStzb89o31m02/view?usp=sharing)
2. **Vida Robertson**, Texas A&M University – Commerce, [*Substituent Effect Analysis of the Synthesis of 1-Azabicyclo[2.2.1]heptan-2-one Using Diels-Alder Reactions.*](https://drive.google.com/file/d/12hthEbYRvex9N5k_f8mE05bmH3XmHQtN/view?usp=sharing)
3. **Michael Brdeka**, Texas A&M University – Commerce, [*Hydrothermal Liquefaction of Chlorella and Reeds to Bio-oils and other Value added products.*](https://drive.google.com/file/d/1ZMf7QQVFNx0anYFzWB3yjd6ItOwPeoap/view?usp=sharing)

**Poster Presentation Competition**

*Master’s Presentations*

**Agriculture & Natural Resources**

1. **Ryon Springer**, Tarleton State University, [*Palatability of hempseed meal pellets compared to mainstream feedstuffs in horses*](https://drive.google.com/file/d/1z8gB_LGnx7wgCbZAWNfE0y9ZUP5KdJvw/view?usp=sharing)*.*
2. **Emily Purnell**, Tarleton State University, [*Effect of Cannabidiol on Follicular Growth and Ovulation in Cattle*](https://drive.google.com/file/d/1vB-I4AJPXaCDDRAyt7kaFWUPkyrFKenk/view?usp=sharing)*.*
3. **Heather Ruemke**, Tarleton State University, [*Beyond the Breeding Soundness Exam: The evaluation of the motility and viability of sperm cells as well as a quantification and evaluation of miRNA 26a-5p, miRNA 574, as parameters for bull infertility*](https://drive.google.com/file/d/18vpRxqFRPrlVo3YibA5yCNHJ9qYZ2-9J/view?usp=sharing)*.*

**Biomedical & Health Sciences**

1. **Lyric Richardson**, Tarleton State University, [*Effects of Low-Intensity Fatigue on Motor Unit Firing Properties*](https://drive.google.com/file/d/1wXDbqWLiOsLFTXf_pLbWOM411ZA6auv8/view?usp=sharing)*.*
2. **Jesse Delacruz and Joo Hyun Kim**, Texas A&M University – San Antonio, [*Acupuncture Treatments Mitigate Muscle Atrophy induced by Casting Model*](https://drive.google.com/file/d/1Mhuqp5tnU1fMMhkvl8FbMTHb9ZtgzbrD/view?usp=sharing)*.*

**Business & Information Technology**

1. **Chiho Kim**, Texas A&M University – Commerce, [*Zero-day Malware Detection using Threshold-free Autoencoding Architecture.*](https://drive.google.com/file/d/1XoxvwHz_zQscmt62cNSOXary4_sC53ZO/view?usp=sharing)

**Engineering & Computer Science**

1. **Gabriela Ramos**, Texas A&M University – College Station, [*Exposure to Bacterial Aerosols with Antimicrobial Resistance Surrounding Septic Systems.*](https://drive.google.com/file/d/1dMZToRpqN-YIWUzNSfEYrMjiKbToVdI-/view?usp=sharing)
2. **Layla Ogletree**, Prairie View Texas A&M University, [*Fabrication of Thin Film Nanocomposite Forward Osmosis Membranes for the Treatment of Produced Water.*](https://drive.google.com/file/d/1_1tBlJGnBzzWoS0is4Wsj_p7tAKdPEoI/view?usp=sharing)
3. **Faryal Fatima**, Prairie View Texas A&M University, [*Poultry Slaughterhouse Wastewater Treatment with Membrane Technologies.*](https://drive.google.com/file/d/1_1tBlJGnBzzWoS0is4Wsj_p7tAKdPEoI/view?usp=sharing)

**Life Sciences**

1st Place

2nd Place

3rd Place

3rd Place

**Eliza Mills**, Texas A&M University – Corpus Christi, [*Shore-based Theodolite Tracking of Bottlenose Dolphin Movement and Behavior in the Corpus Christi Ship Channel*](https://drive.google.com/file/d/1nqM_XbZM7GoYSmiLkIEH33TInwUNQMxz/view?usp=sharing)*.*

**Oscar Sanchez**, Texas A&M University – Kingsville, [*Purification of a novel recombinant cysteine-rich secretory protein (rCRiSP) expressed in E.coli for the development of egg yolk antibody (IgY).*](https://drive.google.com/file/d/1-RFHP-YhNNCBpiHWMGmhK7Mzw_cp9zuF/view?usp=sharing)

**Robert Mueller,** Texas A&M University – Corpus Christi, [*Analysis of Gene Transcription and mRNA Translation Requirements for Experience-Dependent Long-Term Changes in Appetitive Neural Circuits in an Invertebrate Model.*](https://drive.google.com/file/d/1tghMOCbtHC_kAFuo5aK5qxC-ts87uG45/view?usp=sharing)

**Maxwell Portmann**, Texas A&M University – Corpus Christi, [*Post-disturbance below- and aboveground recovery of Avicennia germinans (L.) L. on the Texas Gulf Coast*](https://drive.google.com/file/d/10k6agMkH84nx92M4-Szm3vy3gIFPSc4i/view?usp=sharing)*.*

**Mathematics & Physical Science**

1. **Hailey Burt**, Texas A&M University – Commerce, [*Promoted Palladium Catalysts for Liquid Phase Selective Hydrogenation of Alkynes.*](https://drive.google.com/file/d/1C652zbSexHvrzXtHlpbE5082WpFQNOGa/view?usp=sharing)
2. **Justin Elliot**, Texas A&M University – Corpus Christi, [*Increasing the Analytical Window of Marine Dissolved Organic Matter for HRMS Analysis.*](https://drive.google.com/file/d/1wMKbLPkC9uO3lO4LoU4HcQwrAEL4hysR/view?usp=sharing)
3. **Allyson Girard**, Texas A&M University – Corpus Christi, [*Sulfide Intrusion in the Seagrass Halodule wrightii as Assessed by Tissue Sulfur Isotopic Composition.*](https://drive.google.com/file/d/1-6caRZ2jZtDuiyNvng0asePAMznoWt34/view?usp=sharing)

**Oral Presentation Competition**

*Undergraduate Presentations*

**Humanities**

1. **Ashlyn Lester**, West Texas A&M University, [*Women and the Making of a Nation: An analysis of the South Korean Family Planning Program.*](https://drive.google.com/file/d/1VN7VxNHMKQRZTqHKNEh25tBoVHi8uJ3n/view?usp=sharing)
2. **Leah Green**, Texas A&M University – Texarkana, [*Numbers of The Library of Babel*](https://drive.google.com/file/d/1VIB_fhXD6EDG0h4Qa1gn3Yg058HnSL4v/view?usp=sharing)*.*
3. **Sarah Rutherford**, Texas A&M University – College Station, [*Called and Challenged: Examining the Experiences of Women Clergy in Brazos County and Harris County, Texas.*](https://drive.google.com/file/d/13qz4wRhFaP36JOLtypqiutFNtGTkEnHe/view?usp=sharing)

**Social Sciences**

1. **Gerald Farrell**, West Texas A&M University, [*Movies and Mood: How Family Movies and Horror Movies affect mood, life satisfaction, and perceived stress.*](https://drive.google.com/file/d/1rIKmw7ION5CGaMBhk1fZLvasJNapkGNQ/view?usp=sharing)
2. **Luis Perez**, Texas A&M University – San Antonio, [*Verifying a New Measure of Traditional Masculinity.*](https://drive.google.com/file/d/1Ba20rQ1Ct6ctpOYeQwcR76TE2nI03Z8L/view?usp=sharing)
3. **Sophia North**, Texas A&M University – College Station, [*Devaluation of Alternative Partners in the Presence of Cognitive Load.*](https://drive.google.com/file/d/1R5q6mbUaQrO1_Qr6T1ibrKWpsi82ev73/view?usp=sharing)

*Master’s Presentations*

**Humanities**

1. **Kribi Kelley-Diaz,** West Texas A&M University, [*Costly Articles of Adornment: The Substitution, Economy, and Morality of Food 1880-1920*.](https://drive.google.com/file/d/1HY589t8A5RxUcnTMBz3aeN96sFxt2Nr3/view?usp=sharing)

**Social Sciences**

1. **Amber Meegan**, Texas A&M University – San Antonio, [*Moderating Effects of Caregiver Attachment Style on Treatment Outcomes among Youth in a Long-Term Residential Trauma Treatment Program.*](https://drive.google.com/file/d/1la0ynJGmakWIS4uxOw0Wp7Mu_ueqsTmv/view?usp=sharing)
2. **Krista Rodriguez**, Texas A&M International University, [*Virtual Psychoeducational Groups with Latino College Students: Findings from Focus Groups.*](https://drive.google.com/file/d/151I8CLIKEhqkubme7GALTdDiyk5xLbRZ/view?usp=sharing)
3. **Quinesha Bentley**, Prairie View Texas A&M University, [*Black Trauma: The Impact of Desecrating Black Historical Markers and the Racist Effects on the Black Experience.*](https://drive.google.com/file/d/14y_fhlVxMNebHYaoLjyyWeArMXQNjmyK/view?usp=sharing)

**Doctoral Lightning Talk Competition**

1. **Ahnesi Shon,** Texas A&M University – College Station, [*Fully Implantable Closed-loop Neural Interface System Augmenting Plantar Cutaneous Sensory Feedback for Locomotor Rehabilitation.*](https://drive.google.com/file/d/1WDXhfiVTYHfsyYaS9lqnr4qa1jl0jhEj/view?usp=sharing)
2. **Abbey Hotard,** Texas A&M University – Galveston, [*Household Adaptations to Coastal Hazards.*](https://drive.google.com/file/d/19K67dvvHvNlrk7gIR12h3y918vtL18ec/view?usp=sharing)
3. **Brooke Smith,** Texas A&M University – College Station, [*Aerosolization Triggers Immediate Antibiotic Resistance in Bacteria.*](https://drive.google.com/file/d/1pN2YEMqvOFwKQPqL8TjHd4FhNJebwdjN/view?usp=sharing)