



TEXAS TECH UNIVERSITY

**CISER: Center *for the* Integration
of STEM Education & Research**

6th Annual CISER SCHOLAR RESEARCH FORUM

Saturday, November 11th, 2017 from 10:00 am - 3:00 pm

The CISER Undergraduate Research Scholars' presentations are in video format followed by in-person questions to the presenters. This format is part of our newest initiative to give Scholars a presence on the World Wide Web and an opportunity to connect with other researchers globally.

Welcome - Roman Taraban, Ph.D., Psychological Sciences

Kill Those Cancer Cells

Nitish Mittal

Mentor: Dr. Stephanie Filleur

Department: Urology, TTUHSC

Development of Collaborative, Hands-on High School Physics Activities

Rachel Smith

Mentor: Dr. Jerry Dwyer

Department: Curriculum & Instruction, TTU

Blood and Bacteria: Interactions in the Host Environment

Brittany Herrin

Mentor: Dr. Catherine Wakeman

Department: Biological Sciences, TTU

Differences in Size, Using Skulls, Between Males and Females in the White-Lined Broad-Nosed Bat

Ashlyn Kildow

Mentor: Dr. Richard Stevens

Department: Natural Resources Management, TTU

Cooperation of Bacteria in Cystic Fibrosis Lungs Through Production of Pyomelanin Pigment

Obadeh Shabaneh

Mentor: Dr. Catherine Wakeman

Department: Biological Sciences, TTU

Protein Synthesis and Disease

Kristen Baca

Mentor: Dr. Andrey Karamyshev

Department: Cell Biology and Biochemistry, TTUHSC

The Pricelessness of the Nano Scale: Creating Biofilm-Busting Magnets

Amanda Miller

Mentor: Dr. Dominick Casadonte

Department: Chemistry and Biochemistry, TTU



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Crocodiles: Who's related to who?

Zach Nguyen

Mentor: Dr. David Ray

Department: Biological Sciences, TTU

The Influence of Informal STEM Education on Overall Student Interest in STEM

Brianna Crosier

Mentor: Dr. Jerry Dwyer

Department: Education, TTU

Effects of Early Type II Diabetes on Testicular Health

Robin Greer

Mentor: Dr. Jannette Dufour

Department: Cell Biology and Biochemistry, TTUHSC

Difference of Cretaceous Limestones at Comanche Peak

Alex Blizzard

Mentor: Dr. Jerry Dwyer

Department: Education, TTU

Sterol Lipids in Leishmania

James Huffman

Mentor: Dr. Kai Zhang

Department: Biological Sciences, TTU

The Competitive Nature of Polymicrobial Interactions in Biofilms

Shawna Gallegos

Mentor: Dr. Kendra P. Rumbaugh

Department: Surgery, TTUHSC

Effects of Acute Stress on Attention in a Mouse Model of Alzheimer's Disease

Giuliana DiMarco

Mentor: Dr. Brianna Harris & Dr. Paul Soto

Departments: Biological Sciences and Education, TTU

LUNCH BREAK and Invited Speakers

Scholar Service Organization President, Zach Nguyen

NI-07 - The War on Cancer: A Natural Product That Kills Cancer Cells Without Harming Normal Cells

Stacy Galvan

Mentor: Dr. Lauren Gollahon

Department: Biological Sciences, TTU



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Assessment of Short Term Memory Changes in a Transgenic Alzheimer's Mouse Model

Rebekah Salinas

Mentor: Dr. Breanna Harris

Department: Biological Sciences, TTU

Bacteria on Bacteria Warfare

Jorge Franco

Mentor: Dr. Mindy Brashears and David Campos, PhD Graduate Student

Department: Animal and Food Sciences, TTU

Radioactive Tin in the Treatment of Arthritis

Aashish Chandra Gupta

Mentor: Dr. Richard E. Wendt III

Department: Imaging Physics, UT MD Anderson Cancer Center, Houston

Using Socially Assistive Robots in Autism Therapy

Vijayanta Jain

Mentor: Dr. Wesley Dotson

Department: Education/EPL, TTU

Plant Diversity

Samantha M. Soto

Mentor: Dr. Matt Olson

Department: Biological Sciences, TTU

Interesting Intestines: How Pregnancy Changes the Guts of Bats (in absentia)

Gregory Knox

Mentor: Dr. Caleb Phillips

Department: Biological Sciences, TTU

Alzheimer's Transgenic Mouse Model's Hormonal Stress Response to Predator Odor

Mackenna Wollet

Mentors: Dr. Breanna Harris & Dr. Paul Soto

Department: Biological Sciences, TTU

Galactic Dynamics

Brody Allen Moore

Mentor: Dr. Kevin Long

Department: Physics and Mathematics, TTU

Identifying Microorganism Biodiversity in West Texas Vineyards (in absentia)

Kenia Ascencio

Mentor: Dr. Marie Bugarel

Department: Animal and Food Sciences, TTU



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Salty Shrimp: Mutations That Allow Them to Survive in One of the Saltiest Places on Earth (in absentia)

Brittany Gaither

Mentor: Dr. Pablo Artigas

Department: Cell Physiology and Molecular Biophysics, TTUHSC

Automatic Cell Counting in Microfluidic Analysis Systems

Adrian Falco

Mentor: Dr. Dimitri Pappas

Department: Chemistry and Biochemistry, TTU

Gulf Killifish Invade the Pecos River

Jesus Salazar

Mentor: Dr. Allison Pease

Department: Natural Resources Management, TTU

The Man with the Golden Gun

Colt Cagle

Mentor: Dr. Michelle Pantoya

Department: Mechanical Engineering, TTU