



EAST TENNESSEE STATE
UNIVERSITY

2022 Appalachian Student Research Forum

April 6 & 7, 2022

D.P. Culp Student Center on the ETSU Campus
Johnson City, Tennessee

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About the Trailblazer Summit

The ETSU Office of the Vice Provost for Research and the Research Corporation are excited to sponsor the inaugural Trailblazer Summit: A Celebration of ETSU Research and Innovation. The week of events will celebrate ideas, convene scholars, foster connections, and position ETSU's researchers and innovators to blaze new trails.

Schedule of Events

Tuesday, April 5th

9:00 am - 3:30 pm

[Trailblazer Summit Workshops](#)

Wednesday, April 6th

9:00 am - 4:00 pm

[Appalachian Student Research Forum](#)

8:30 am - 2:30 pm

[Dr. Jay S. Boland Undergraduate Research Symposium](#)

Thursday, April 7th

9:00 am - 4:00 pm

[Appalachian Student Research Forum](#)

Friday, April 8th

9:00 am - 2:00 pm

[Faculty 3-Minute Mixer](#)

4:30 pm

[The Art and Science of Distilling](#)

About the ASRF

The Appalachian Student Research Forum is an annual event hosted by East Tennessee State University. The Forum brings together undergraduate, graduate, medical and pharmacy students, post-doctoral fellows and medical residents to present their original research in a formal, juried setting.

Beginning in 1985 as a program within the Medical School with only 19 participants, the 2022 Forum will host over 150 participants from East Tennessee State University presenting in fields as diverse as nursing, medicine, pharmacy and public health; chemistry, biology, economics and other natural, physical and social sciences; computing and engineering; education, and the humanities.

A cadre of distinguished researchers, faculty and physicians evaluate and award top prizes for poster presentations for which all levels of participant are eligible, and oral presentations for which all levels of participant except undergraduates are eligible.

The Forum culminates with an awards presentation and a keynote address given by Dr. Derek H. Alderman a distinguished researcher. Past presenters include Dr. Shilpa Buch, a leading researcher in the connection between HIV and drug abuse; Dr. Richard Ignace, an ETSU professor in the Department of Physics and Astronomy; Dr. Karl H. Hasenstein, whose research into the use of high-gradient magnetic fields as surrogate for gravity resulted in a successful space experiment onboard a Space-X3 flight.

The Forum is organized by the ETSU Office of Research and Sponsored Programs Administration with input from the ASRF Faculty Advisory Committee. To learn about past ASRF events, please visit: <https://www.etsu.edu/studentresearch/default.php>.

Schedule of Events

ASRF Day One: Wednesday, April 6, 2022

TIME	LOCATION	ACTIVITY
9:00 am - 4:00 pm	D.P. Culp Student Center, 3rd Floor, Rooms 303, 304, Forum	ASRF Oral Presentation Sessions
11:00 am - 3:00 pm	D.P. Culp Student Center, 3rd Floor, Ballroom	ASRF Poster Registration and Setup

ASRF Day Two: Thursday, April 7, 2022

TIME	LOCATION	ACTIVITY
9:00 am - 12:00 pm	D.P. Culp Student Center, 3rd Floor, Ballroom	ASRF Poster Presentation Sessions
1:30 - 2:00 pm	D.P. Culp Student Center, 1st Floor, Martha Street Culp Auditorium Annex	ETSU Bluegrass Band
2:00 - 3:00 pm	D.P. Culp Student Center, 1st Floor, Martha Street Culp Auditorium	ASRF Keynote Address
3:00 - 4:00 pm	D.P. Culp Student Center, 1st Floor, Martha Street Culp Auditorium	ASRF Awards Ceremony

Keynote Presentation



Dr. Derek Alderman

Professor, Department of Geography
University of Tennessee

Past President
American Association of Geographers
(2017-2018)

Keynote Address Abstract:

“Research as Reparative Storytelling: Lessons from the Black Living Atlas”

Dr. Derek Alderman argues for enhancing storytelling as a core professional skill and responsibility among researchers. Importantly, he calls for the stories written, told, performed, and visualized by scholars to be reparative in nature. They should challenge and redress the fallacies and inequalities that have come to characterize our “post-truth” world. Reparative storytelling, according to Alderman, is about scholars translating their science, theory, methods, and technologies into clear, compelling accounts that make an intervention in how public groups and decision-makers think about, care for, and act on today’s pressing social and environmental issues. Reparative storytelling is also an ethical commitment to create spaces for amplifying and responding to the voices, experiences, and knowledge production of diverse, historically marginalized groups within our society and professional communities. Mapping and geospatial analysis—which now stretches across many disciplines and professions—is a potentially powerful tool in creating and transmitting reparative stories. Yet, realizing this potential requires a reckoning with the politics of maps in America, including their involvement in settler colonialism, racism, patriarchy as well as tool for resisting these forces. Being a reparative researcher requires looking beyond just academic conventions and expert practices and allowing oneself to acknowledge and learn from the everyday public intellectualism and oppositional research practices of oppressed communities. A growing generation of anti-racist mappers and scientists in universities can learn much from the “living atlas” that constitutes the Black Freedom Struggle. More than simply a passive collection of maps, this atlas is the embodied and always emerging ways that Black communities have deployed counter- and restorative-mapping and other forms of data analysis and visual storytelling as they live with and against White supremacy. In doing so, they redefine what counts as maps and data and what social and political work maps and data can and should do to advance equality and justice.

Thank You to our ASRF Partners!

The Forum is made possible with generous support from the University community.
Financial contributions go to fund over fifty student awards.

- Arts & Sciences
- Biomedical Sciences
- Bureau of Business & Economic Research
- Center for Community Outreach & Applied Research
- Center of Excellence for Appalachian Studies & Services
- Clemmer College
- Communication & Performance
- Criminal Justice
- Curriculum & Instruction
- Dean of the College of Business & Technology
- Dean of the College of Pharmacy
- Educational Foundations & Special Education
- Educational Leadership & Policy Analysis
- Engineering, Engineering Technology, Surveying, & Interior Architecture
- Environmental Health
- Graduate School
- Health Sciences
- Internal Medicine
- Medical Library
- Nursing Center for Nursing Research
- OB/GYN
- Office of the Provost
- Pathology
- Pediatrics
- Philosophy & Humanities
- Physics & Astronomy
- Political Science
- Psychology
- Public Health
- Roan Scholars Leadership Program
- Sherrod Library
- Sociology & Anthropology
- TRIO/McNair Program

ASRF Judges

We gratefully acknowledge the following faculty and staff for giving their time and expertise to serve as ASRF Judges

Dr. Rebecca Adkins
Fletcher

Dr. Kate Beatty

Dr. Sharon Bigger

Dr. Whitney Bignell

Dr. Reid Blackwelder

Dr. Myra Carew

Dr. Michelle Chandley

Dr. Allie Chroust

Dr. Suman Dalal

Dr. Gerald Deehan

Dr. Anthony DeLucia

Dr. Julia Dodd

Dr. William R. Duncan

Dr. Saravanan Elangovan

Dr. Mohamed Elgazzar

Dr. Susan Epps

Dr. Eileen Ernenwein

Dr. Brandi Eveland-Sayers

Dr. Ruth Facon-Granadozo

Dr. Marc Fagelson

Dr. William Flora

Dr. Robin Foreman

Dr. James Fox

Dr. Chaya Guntupalli

Dr. Nick Hagemeyer

Dr. Theo Hagg

Dr. Nathan Hale

Dr. Jennifer Hall

Dr. JeanMarie Hendrickson

Dr. Mike Hoff

Dr. Donald Hoover

Dr. Stephanie Horvath

Dr. Scott Jeffress

Dr. Cuihong Jia

Dr. Yong Jiang

Dr. Thomas Jones

Dr. Ismail Kady

Dr. Alissa Lange

Dr. Ying Li

Dr. Ingrid Luffman

Dr. Jane MacMorran

Dr. Wondi Samuel Manalew

Dr. Laura Maphis

Dr. Greta Marek

Dr. Charles Mays

Dr. Kimberly McCorkle

Dr. Sharon McGee

Dr. Hua Mei

Dr. Martha Michieka

Dr. Pam Mims

Dr. Renee Miranda

Dr. Paula Moody

Dr. Darrell Moore

Dr. Diana Morelen

Dr. Shunbin Ning

Dr. Brian Noland

Dr. Erik Petersen

Dr. Brooks Pond

Dr. Ashana Puri

Dr. David Roane

Dr. Diego Rodriguez-Gil

Dr. Phillip Scheuerman

Dr. Laurie Schroder

Dr. Dane Scott

Dr. Eric Sellers

Ms. Ashley Sergiadis

Dr. Abbas Shilabin

Dr. Candice Short

Dr. Bess Sirmon-Taylor

Dr. Mike Smith

Dr. Michael Stone

Dr. Kendrea Todt

Dr. Joseph Tucciarone

Dr. Jonathan Wilson

Dr. Valentin Yakubenko

Dr. Lev Yampolsky

ASRF Advisory Committee

Dr. Joseph Shrestha, ASRF Chair

Asst. Professor, Engineering, Engineering Technology and Surveying

John Bossaer
Asst. Professor, Pharmacy Practice

Kwangman Ko
Asst. Professor, Counseling & Human Services

Candace Bright,
Asst. Professor of Sociology

Ingrid Luffman
Asst. Professor, Geosciences

Russell Brown
Professor, Biomedical Sciences

Sharon McGee
Dean, College Graduate Continuing Studies

Wendy Eckert
Director, Research & Sponsored Programs

Trena Paulus
Director, Undergraduate Research

Ruth Facun-Granadozo
Asst. Professor, Early Childhood Education

Ashley Sergiadis
Asst. Professor, Library Administration

Nick Hagemeyer
Interim Vice Provost for Research

Kendrea Todt
Asst. Professor, Nursing Undergraduate Programs

Advisory Committee Administrative Support:

Ms. Angela Clark, Ms. Camille Josey, and Ms. Lindsay Keitzer, Office of Research & Sponsored Programs

A Special Thanks

We gratefully acknowledge the following faculty, staff and students for giving their time to serve the Appalachian Student Research Forum

ASRF Backup Judges:

Dr. Biju Bajracharya, Dr. Russell Brown, Dr. Ginger Christian, Dr. Scott Honeycutt, Dr. Michelle Hurley

McNair Program Students:

Amyre Cain, Kailey Magiera

Student Employees:

Lillie Edmonds, Mofeoluwa Jide-Jegede, Austin Kincer, Josie Vest

Office of Research & Sponsored Programs' Staff:

Ms. Cynthia Hardin, Ms. Christine Skalko, Mr. Morgan Taylor

Appendix A: Oral Presentation Schedule

Wednesday, April 6, 2022

Location, Time, Subject Area-Presenter Class >> Presenter Name, Link to Abstract, Presentation Title

CULP FORUM 303

9:00 AM-10:00 AM

BioSciences-Doctoral Students

Behera, Jyoti

<https://dc.etsu.edu/asrf/2022/schedule/153>

Novel Structural Characteristics of Oil Biosynthesis Regulator Protein Wrinkled2 in Avocado

Birchfield, Aaron

<https://dc.etsu.edu/asrf/2022/schedule/5>

Crystallization of a Unique Flavonol 3-O Glucosyltransferase found in Grapefruit

10:00 AM-11:00 AM

BioSciences-Doctoral Students

Aldridge, Jessa

<https://dc.etsu.edu/asrf/2022/schedule/160>

Decreased Reactive Oxygen Species Buffering Capacity May Underlie Arrhythmia Susceptibility in the Scn1b^{-/-} Mouse Model of Dravet Syndrome

Keever, Kasey

<https://dc.etsu.edu/asrf/2022/schedule/168>

Cholinergic Signaling Regulates Macrophage Migration During Acute and Chronic Inflammation via A7 Nicotinic Acetylcholine Receptor

Kennard, Ben

<https://dc.etsu.edu/asrf/2022/schedule/6>

N-acetylcysteine (NAC) and Ondansetron (Zofran) Intravenous Compatibility Determination via RP-HPLC and LC-MS/MS Methods

1:00 PM-2:00 PM

Bio-Chem Sciences-Masters Students

Agbakpo, Andy

<https://dc.etsu.edu/asrf/2022/schedule/155>

Extraction, Purification, and Characterization of Bioactive Compounds Produced by Janthinobacterium Lividum Strain TAJX1901

1:00 PM-2:00 PM

Caesar, Aaron

<https://dc.etsu.edu/asrf/2022/schedule/10>

Use of Selected Melatonin Derivatives as Spin Traps for Hydroxy Radicals: A Computational Studies.

Tetteh, Michael

<https://dc.etsu.edu/asrf/2022/schedule/9>

Folic Acid-Carbon Dots-Doxorubicin (FA-CD-DOX) Nanoparticles as Cancer Theranostic

2:00 PM-3:00 PM

Bio-Chem Sciences-Masters Students

Moore, Emma

<https://dc.etsu.edu/asrf/2022/schedule/162>

Co-flowering Community Effects on the Relative Contribution of Pollen Quantity and Quality Limitation to the Reproductive Success of Four Clarkia Species

Rockow, David

<https://dc.etsu.edu/asrf/2022/schedule/8>

The Impact of Urbanization on Pollination Success in Asclepias syriaca (Common Milkweed), A Comprehensive Study

Snipes, Chelsie

<https://dc.etsu.edu/asrf/2022/schedule/164>

Variation in the Stylohyal-Tympanic Bone Articulation in Laryngeally Echolocating Bats and Its Implications Regarding Function

CULP FORUM 304

9:00 AM-10:00 AM

Bio & Social Sciences-Doctoral Students & Fellows

Cartwright, Jake

<https://dc.etsu.edu/asrf/2022/schedule/42>

Development of Metastatic Merkel Cell Carcinoma Following the Excision of Same-Sided Recurrent Auricular Melanoma

Stanton, Melanie

<https://dc.etsu.edu/asrf/2022/schedule/158>

A Nurse Leader Residency Program: Improving Leadership Competencies

10:00 AM-11:00 AM

Bio & Social Sciences-Doctoral Students & Fellows

Jones, Marissa

<https://dc.etsu.edu/asrf/2022/schedule/166>

Effects of Alcohol Withdrawal on Sleep Macroarchitecture and Microarchitecture in Female and Male Rats

Olomofe, Charles

<https://dc.etsu.edu/asrf/2022/schedule/15>

Tobacco use among blue collar workers in Nigeria: A survey of Construction Artisans in Ekiti state

Zarin, Tyler

<https://dc.etsu.edu/asrf/2022/schedule/156>

Hypocretin-Receptor Antagonists for Treatment of Methamphetamine Use Disorder

11:00 AM-12:00 AM

Bio & Social Sciences-Doctoral Students & Fellows

Dismuke, Alexandria

<https://dc.etsu.edu/asrf/2022/schedule/16>

The Interaction Effect of Impression Motivation and Impression Efficacy on Social Anxiety: Analyzing Situational and Dispositional Differences

Mahan, Kristin

<https://dc.etsu.edu/asrf/2022/schedule/14>

Examining Effects of Direct and Indirect Experiences of Childhood Adversity on Suicidality in Youth who have Engaged in Sexually Abusive Behaviors

1:00 PM-2:00 PM

Public Health-Masters Students

Abakah, Bernard

<https://dc.etsu.edu/asrf/2022/schedule/161>

Non-Destructive Imaging of Phytosulfokine Trafficking Using a Fiber-Optic Fluorescence Microscope

Headrick, Joseph

<https://dc.etsu.edu/asrf/2022/schedule/151>

The Effects of Dysregulating Cyclic-di-GMP Pathways on Survival of Salmonella in Chicken Eggs

Reynolds, Garrett

<https://dc.etsu.edu/asrf/2022/schedule/13>

Cyclic Di-GMP Regulates Biofilm Formation, Desiccation Tolerance, and Motility in Acinetobacter Baumannii

2:00 PM-3:20 PM

Public Health-Masters Students

Daniel, Kelly

<https://dc.etsu.edu/asrf/2022/schedule/1>

Building the Puzzle: An Exploration of Parenting, Emotion Socialization, Adversity and their Associated Psychosocial Outcomes in Appalachia.

Howard, Amy

<https://dc.etsu.edu/asrf/2022/schedule/163>

At the Intersection of Transgender Attitudes, Identity Politics, and Vote Choice

Nriagu, Valentine

<https://dc.etsu.edu/asrf/2022/schedule/7>

The Prevalence of Cardio-Metabolic Conditions (Diabetes, Hypertension, and Obesity) Before and During COVID-19 and Association with Health and Sociodemographic Factors

Nwaneki, Chisom

<https://dc.etsu.edu/asrf/2022/schedule/152>

Chronic Disease Risk Factors among Women in Tennessee

CULP FORUM 311

9:00 AM-10:00 AM

HealthCare-Doctoral Students

Al Ksir, Kawther

<https://dc.etsu.edu/asrf/2022/schedule/167>

Motivational Interviewing to Improve Self-Management in Youth with Type 1 Diabetes : A Randomized Clinical Trial

Ayo, Adeola

<https://dc.etsu.edu/asrf/2022/schedule/150>

A Cross-sectional Descriptive Study of Patient Satisfaction among Community-dwelling Medicare Beneficiaries with Diabetes

Oke, Adekunle

<https://dc.etsu.edu/asrf/2022/schedule/3>

COVID 19 Vaccine Hesitancy and Health Literacy among Southern States in the United States

10:00 AM-11:00 AM

HealthCare-Doctoral Students

Adebayo-Abikoye, Esther

<https://dc.etsu.edu/asrf/2022/schedule/157>

The Association Between Substances Related Behavior and High Blood Pressure Among Women in the United States

10:00 AM-11:00 AM

Adelli, Rakesh

<https://dc.etsu.edu/asrf/2022/schedule/154>

Access to Contraceptive Services during the COVID-19 Pandemic: Perceptions of Choose Well Hospital Partners

Osedeme, Fenose

<https://dc.etsu.edu/asrf/2022/schedule/2>

Perceptions, knowledge, and attitudes about Long-Acting Reversible Contraceptives (LARCs) among Women in Appalachian Tennessee

1:00 PM-2:40 PM

Bio-Environmental Sciences -Masters Students

Bittner, Kyle

<https://dc.etsu.edu/asrf/2022/schedule/165>

Amine and Pesticide Detection with Phthalocyanines

Clark, Sarah

<https://dc.etsu.edu/asrf/2022/schedule/12>

Community Structure Analysis of Mammals Found at the Gray Fossil Site, TN

Fashina, Lukman

<https://dc.etsu.edu/asrf/2022/schedule/149>

Evaluation of Karst Spring Water Quality Using Water Quality Indices in Northeast Tennessee

Hardgrave, Aaron

<https://dc.etsu.edu/asrf/2022/schedule/11>

*Osteological Comparisons of the Eastern Newt (*Notophthalmus viridescens*) Between the Terrestrial Eft and Adult Stage.*

Wiser, Darrell

<https://dc.etsu.edu/asrf/2022/schedule/159>

Evaluating Spatiotemporal Patterns in US Tornado Occurrence with Space Time Pattern Mining: 1950-2019 and 1980-2019

Appendix B: Poster Presentation Schedule

9am to 12pm, Thursday, April 7, 2022

CULP CENTER BALLROOM

Presenter Class-Subject Area >> Presenter Name, Link to Abstract, Presentation Title

Doctoral Students-BioSciences

Caviness, Dalton

<https://dc.etsu.edu/asrf/2022/schedule/74>

Olfactory Dysfunction in SARS-CoV-2 Infection: Benefits of Including Smell Tests in COVID-19 Patients

Hudson, Rachel

<https://dc.etsu.edu/asrf/2022/schedule/85>

Noise Exposure Effects in Extended High Frequencies

Owens, Misty

<https://dc.etsu.edu/asrf/2022/schedule/99>

Transcutaneous Auricular Vagal Nerve Stimulation (taVNS) as a Potential Treatment for Cardiac, Gastric Motility, and Migraine Disorders

Peeters, Loren

<https://dc.etsu.edu/asrf/2022/schedule/113>

Metabotropic Glutamate Receptor Type 5 (Mglu5) as a Therapeutic Target Towards the Enhanced Rewarding Effects of Nicotine and Deficits in Sensorimotor Gating in a Heritable Model of Drug Abuse Vulnerability in Psychosis

Toma, Nicholas

<https://dc.etsu.edu/asrf/2022/schedule/31>

An SEM Study of Blastodinium Parasitism of Estuarine Calanoid Copepods: Impact on Mankind

Doctoral Students-HealthCare Group A

Adeniran, Esther

<https://dc.etsu.edu/asrf/2022/schedule/127>

Prevalence and Determinants of Dental Care Visits among Tennessee Seniors: Results from a Longitudinal Study

Diem, Karee

<https://dc.etsu.edu/asrf/2022/schedule/73>

Assessing Self-Efficacy in Families of Children with Hearing Concerns through an Audiological Early Intervention Training

Johnson, Haley

<https://dc.etsu.edu/asrf/2022/schedule/103>

Readability and Quality of Patient Education Materials Pertaining to Benign Paroxysmal Positional Vertigo

Parungao, Daryl

<https://dc.etsu.edu/asrf/2022/schedule/144>

Exploring the Experiences of Emerging Adulthood Among Rural Appalachian Students

Ridley, Elizabeth

<https://dc.etsu.edu/asrf/2022/schedule/128>

The Effects of Rejection Sensitivity on Attention and Performance Monitoring Event-Related Potentials

Doctoral Students-HealthCare Group B

Ameh, Mary

<https://dc.etsu.edu/asrf/2022/schedule/92>

Screening for Adverse Childhood Experiences in Primary Care.

Burleson, Courtney

<https://dc.etsu.edu/asrf/2022/schedule/112>

Improving Coordinated Mental Health Care Through an Enhanced Referral Process: A Quality Improvement Project

Melton, Margaret

<https://dc.etsu.edu/asrf/2022/schedule/114>

Do Block Grant Resources Equitably Reach Rural Communities? A 50 State Analysis

Minnick, Christen

<https://dc.etsu.edu/asrf/2022/schedule/140>

An Economic Assessment of Smokefree Restaurant Establishments in Tennessee: Implications for Other Smoking Establishments

Sossong, Stephanie

<https://dc.etsu.edu/asrf/2022/schedule/104>

Improving Diabetes Self-Management Education and Support (DSMES) Referrals in the Primary Care Setting

Surles, Kristen

<https://dc.etsu.edu/asrf/2022/schedule/64>

Clinic Capacity to Provide Patient-centered Contraceptive Care to Adolescents in the U.S. South: Impact of Rurality and Clinic Type

Doctoral Students-Non-competitive

Bowman, Jacqulyne

<https://dc.etsu.edu/asrf/2022/schedule/87>

Implementation of Evidenced-based Practices to Improve Follow-up Care Following an Inpatient Mental Health Hospitalization

Galler, Nicole

<https://dc.etsu.edu/asrf/2022/schedule/78>

The Relationship Between Health Care Utilization and Social Engagement Among Aging Populations in Urban and Non-urban Communities

Jones, Caitlin

<https://dc.etsu.edu/asrf/2022/schedule/77>

*Light level contributes to habitat selection in the Common House Spider *Parasteatoda tepidariorum* (Araneae: Theridiidae)*

Kalariya, Deep

<https://dc.etsu.edu/asrf/2022/schedule/45>

Case of Fluoxetine-induced Enuresis in a Female Patient

Masters Students-Bio-Chem Sciences

Aldridge, Gabriel

<https://dc.etsu.edu/asrf/2022/schedule/122>

Effects of Single and Dual Hypocretin-receptor Blockade or Knockdown of Hypocretin Amygdalar Projections on Alcohol Drinking in Dependent Male Rats

Arije, Amonah

<https://dc.etsu.edu/asrf/2022/schedule/124>

*Purification and Structural Elucidation of Bioactive Metabolites Isolated From Soil Bacterium *Arthrobacter* Sp. Strain TAJX1902*

Cornett, Abigail

<https://dc.etsu.edu/asrf/2022/schedule/90>

*Determining the Polymicrobial Relationship Between *Candida albicans* and *Enterobacter* spp*

Holman, Miranda

<https://dc.etsu.edu/asrf/2022/schedule/82>

Investigating the Effect of Salcaprozate Sodium on Skin Permeation of Cromolyn Sodium

Peprah-Yamoah, Emmanuel

<https://dc.etsu.edu/asrf/2022/schedule/29>

Phosphorus-Doped Carbon Fiber Ultramicroelectrodes as Electrochemical Sensors for Detection of Hydrogen Peroxide

Masters Students-Bio-Geo Sciences

Bruce, Charles

<https://dc.etsu.edu/asrf/2022/schedule/38>

*Affinity of *Arctomeles dimolodontus* and other Old-World Badgers (Melinae: Mustelidae: Carnivora)*

Jaffe, Karah

<https://dc.etsu.edu/asrf/2022/schedule/133>

Evaluating Bat Roost Abundance: A Comparison of Drone-Acquired Thermal Imagery and Acoustic Recordings with Visual Observers

Long, Mitchell

<https://dc.etsu.edu/asrf/2022/schedule/69>

Risk-Prone and Risk-Averse Foraging Strategies Enable Niche Partitioning in Two Diurnal Orb-Weaving Spider Species

Ragsdale, Raven

<https://dc.etsu.edu/asrf/2022/schedule/75>

*Ecdysis and Locomotor Circadian Rhythms and Differently Entrained to Temperature and Light Cycles in the Flesh Fly *Sarcophaga Crassipalpis**

Xu, Ziqi

<https://dc.etsu.edu/asrf/2022/schedule/102>

Mice and Rats (Rodentia: Cricetidae) from the Pliocene Age Gray Fossil Site of Tennessee and Their Paleocological Implications

Masters Students-GeoSpatial Sciences

Linam, Bob

<https://dc.etsu.edu/asrf/2022/schedule/107>

Mapping the Buried Fort of Los Adaes, Capital of Spanish Texas 1729-1770, Using Geophysics

Olawuyi, Omobolaji

<https://dc.etsu.edu/asrf/2022/schedule/120>

Spatiotemporal Analysis of the COVID-19 Pandemic in School-age Children (5-18 years) in Washington and Johnson County, TN

Pierce, Briar

<https://dc.etsu.edu/asrf/2022/schedule/26>

History to Data: Converting Topographic Maps into Digital Elevation Models

White, Heather

<https://dc.etsu.edu/asrf/2022/schedule/62>

Searching for Unmarked Graves at Historic Carter Mansion, Elizabethton, TN

Whiteman, Rachel

<https://dc.etsu.edu/asrf/2022/schedule/142>

Risk Assessment of Slope Movement in Watauga County, North Carolina

Masters Students-Public Health

Adenusi, Adedeji

<https://dc.etsu.edu/asrf/2022/schedule/58>

Do Heavy Smoking and Early Onset of Smoking and Heavy Alcohol Intake Increase the Chance of Heart Condition?

Asifat, Olamide

<https://dc.etsu.edu/asrf/2022/schedule/119>

Low Birth Weight and Its Associated Risk Factors in The United States Using National Survey of Children Health Data 2016-2020

Kearley, Justin

<https://dc.etsu.edu/asrf/2022/schedule/116>

Surveillance of COVID-19 in Two Northeast Tennessee School Districts

Olagunju, Olajide

<https://dc.etsu.edu/asrf/2022/schedule/59>

The Effect of Heavy Alcohol Consumption On Coronary Heart Disease Among U.S. Adults: Using The 2020 BRFSS Annual Survey Data

Onakpoma, Francis

<https://dc.etsu.edu/asrf/2022/schedule/118>

National and Tennessee Trends in the Prevalence of Obesity and Overweight among High School Students Using YRBS Data 1999-2019

Sloop, Ada

<https://dc.etsu.edu/asrf/2022/schedule/97>

The Importance of Positive Interaction within Assistance Work in Appalachia

Turner, Marissa

<https://dc.etsu.edu/asrf/2022/schedule/67>

Malaria in Children Under the Age of 5 from Sierra Leone in 2019

Williams, Mekyala

<https://dc.etsu.edu/asrf/2022/schedule/23>

Helping or Hovering: Examining Social Loafing and the Free-Rider Effect in Youth's Transition Readiness

Masters Students-Non-competitive

Annor, Eugene

<https://dc.etsu.edu/asrf/2022/schedule/33>

Race, Gender and Mental Health Outcomes in Tennessee

Jones, Carmen

<https://dc.etsu.edu/asrf/2022/schedule/145>

Enhanced Integration of Behavioral/Mental Health Care at a Nurse-Managed Federally Qualified Health Center (FQHC) in Southern Appalachia

Smith, Mary

<https://dc.etsu.edu/asrf/2022/schedule/88>

School-Based SLPs' Perceptions and Attitudes of Leadership

Tafesse, Yordanos

<https://dc.etsu.edu/asrf/2022/schedule/117>

Racial Disparities Associated With Colon Cancer Screening in a Nationally Representative Sample; A Cross-sectional Study

Medical Students-BioSciences

Noordin, Naveed

<https://dc.etsu.edu/asrf/2022/schedule/34>

Evaluating the Efficacy of Thiel Cadavers Versus Low Fidelity Simulation Plastic Mannequins for Teaching Intubation Skills in Medical Education

Razura, Diego

<https://dc.etsu.edu/asrf/2022/schedule/95>

Design, Molecular Cloning and Expression of Integrin α D Mutants for the Functional Analysis of Integrin Ligand Binding Properties

Roberts, Nicholas

<https://dc.etsu.edu/asrf/2022/schedule/130>

Production of NRF2 and p62 in EBV Latency

Siddiqui, Nausheen

<https://dc.etsu.edu/asrf/2022/schedule/111>

The Effects of Chronic Stress on CNTF/UCN3 in the pBNST and Hypothalamic PVN in Mice

Yang, Yong

<https://dc.etsu.edu/asrf/2022/schedule/135>

The Anxiety- and Depression-like Behavioral Profile of Astrocytic FAK Knockout Mice

Medical Students-Case Studies

Gersch, Hannah

<https://dc.etsu.edu/asrf/2022/schedule/56>

Factitious Disorder Presenting as the Intentional Swallowing of Foreign Objects

Howard, Rebecca

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Minimally Conjoined Craniopagus Twins: Case Report, Review of the Literature, and 28-Year Follow-up

Robinson, Fulton

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Combining Sharp Excision and Electrocautery Dermabrasion in the Treatment of Rhinophyma

Santulli, Madeline

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MIS-C with Neurologic Features

Medical Students-HealthCare

Bethurum, Alva

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How Low Can We Go?: Comparing Long-term Oncologic Outcomes for APR and LAR in Very Low Rectal Cancer

Gudger, Deirdre

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Investigating HIV/HCV Incidence and Barriers to Care in the Region of Northeast Tennessee

Mason, James

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Detering Substance Use in Grade School Children through Mental Health Awareness and Coping Skills Training

Millard, Jarred

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Assessing Virtual and Augmented Reality Training for Paramedic Students

Miller, William

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Stigma Related To Medication Assisted Treatment in Rural Appalachia

Shore, Summer

<https://dc.etsu.edu/asrf/2022/schedule/91>

Rise in Neonatal Abstinence Syndrome Rate is Associated With Increased Buprenorphine Prescription Rate

Pharmacy Students-Pharmaceutical Sciences

Akeemat, Tijani

<https://dc.etsu.edu/asrf/2022/schedule/115>

Rapidly Dissolving Polymeric Microneedle Skin Patch of Naloxone for Opioid Overdose Treatment

Belcher, Dewey

<https://dc.etsu.edu/asrf/2022/schedule/110>

Structurally Related Flavonoids CT1 and CT3 Have Cytotoxic Activity On Triple Negative MDA-MB-231 Breast Cancer Cells By Targeting The MEK-ERK

Frempong, Dorcas

<https://dc.etsu.edu/asrf/2022/schedule/138>

Qualitative and Quantitative Analysis of Drug Diffusion Into and Across Derma planed Skin

McCurry, Abby

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The Association Between Grandparents as Caregivers and Overdose Mortality in Appalachia vs. Non-Appalachia

Owens, Hillary

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A Method for Measuring Nicotine in Animals Following a Vaping Model

Sigmund, Hanna

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Experiences of Care Among Women of Childbearing Age Receiving Medications for Opioid Use Disorder in East Tennessee

Sundin, Ashley

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An Exploration of Bacterial Microbiome in E. TN Ambulances

Willcoxon, Tess

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Cost-Related Suboptimal Insulin Use

Pharmacy Students-Non-competitive

Carnevale, Patrick

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Linear and Circular Human ZNF292 RNAs Decrease after Anti-Cancer Treatment of HCT116 Colorectal Cancer Cells

Morris, Samantha

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Expression of ZNF292 Linear and Circular RNAs in Rat MtT Pituitary Cell Lines is Related to Somatotroph Differentiation

Residents & Fellows-BioSciences

Adams, Ezra

<https://dc.etsu.edu/asrf/2022/schedule/19>

Apples to Apples: Effective Clinical Comparisons of Medications Used in Treating CoVid-19 Apples to Apples: Effective Clinical Comparisons of Medications Used in Treating CoVid-19

Eddy, Eric

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Improving Resident Knowledge of Point of Care Ultrasound in an Outpatient Residency Clinic

Farrand, Ariana

<https://dc.etsu.edu/asrf/2022/schedule/108>

Vagus Nerve Stimulation Mitigates Cardiac Symptoms and Alters Inflammatory Markers in Heart Failure Rats

Horne, Dustin

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"Improving Diabetic Patient Engagement through Implementation of Diabetic Care Cards"

Wills, Liza

<https://dc.etsu.edu/asrf/2022/schedule/146>

Behavioral Effects and Neurobiological Mechanisms of 3-Aminobenzimidazole in a Rodent Model of Chronic Psychological Stress

Residents & Fellows-Case Studies

Cantor, Morgan

<https://dc.etsu.edu/asrf/2022/schedule/48>

Clinical Phenotype of Bernard Soulier Syndrome Case Resulting from Compound Heterozygous Inheritance

Cecchini, Arthur

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Percutaneous Mechanical Right Ventricular Support

Khazrik, Hakam

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Refractory/Relapsed Aplastic Anemia Responds to Anti-CD52 Antibody

Kim, Do Young

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A Rare Case of Non-Functional Urinary Bladder Paraganglioma

Kim, James

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Complete Response of Light Chain Amyloidosis to Daratumumab/ Bortezomib/ Cyclophosphamide/ Dexamethasone Regimen

Kommineni, Sai Karthik

<https://dc.etsu.edu/asrf/2022/schedule/44>

Apixaban-induced Nephropathy Causes a Significant Decline in Patients' Health and the Ever-developing Concept of Anti-Coagulant-Induced Nephropathy

Mohammadi, Oranus

<https://dc.etsu.edu/asrf/2022/schedule/52>

Eosinophilia as Initial Presentation of Occult Malignancy

Sanku, Koushik

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Furosemide Induced Tubulointerstitial Nephritis

Residents & Fellows-Non-competitive

Helton, Corey

<https://dc.etsu.edu/asrf/2022/schedule/134>

Digital Resident Handbook

Kamireddy, Chandana

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Recurrent Dural based Extra Nodal marginal Zone Lymphoma of Central Nervous System

Largent, Christina

<https://dc.etsu.edu/asrf/2022/schedule/41>

COVID-19's Impact On The Use Of Media, Educational Performance, And Learning In Children And Adolescents With ADHD Who Engaged In Virtual

Morampudi, Sril Pallavi

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"Everything seems like a Cartoon"- Single, Oral ingested Cannabis induced Depersonalization-Derealization Disorder

Namburu, Lalith

<https://dc.etsu.edu/asrf/2022/schedule/46>

Severe Hypercalcemia With Chronic Gout, a Correlation or Causation?

Undergraduate Students-BioMedical Sciences

Amirfaiz, Sheyda

<https://dc.etsu.edu/asrf/2022/schedule/106>

Using Transposon Mutagenesis to Discover Novel Polymicrobial Therapeutic Targets

Foster, Kayla

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Improving Cardiovascular Disease Outcomes Through Improved Risk Assessment

Fuller, Nicolas

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Neuroanatomical Distribution of Neurons within the Hypothalamic Paraventricular Nucleus that Project to the Brainstem Rostral Ventrolateral Medulla

Garrett, Dewayne

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Does Transgenic Overexpression of Ctrp3 Alter Kidney Morphology?

Gilbert, Jocelyn

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Innervation of Blood Vessels in the Human Heart

Gilmer, Cori

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The Effects of a High Caloric Diet and CTRP3 Over-expression on the Myometrium of the Mouse Uterus

Jennings, Olivia

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*Investigating the Relationship between Motility and Overproduction of Inhibitory Compound by *Alcaligenes faecalis**

Kirkland, Logan

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Exploration of Cholinergic and Noradrenergic Innervation of the Human Atrioventricular Node

Turney, Seth

<https://dc.etsu.edu/asrf/2022/schedule/65>

Investigation of the Adenosine A(2A) Receptor on the Enhanced Rewarding Effects of Nicotine and Dopamine D2 Receptor Signaling in a Novel Heritable Model of Drug Abuse Vulnerability

Undergraduate Students-HealthCare

Averhart, Kennedy

<https://dc.etsu.edu/asrf/2022/schedule/100>

Profile of Poaceae Airborne Pollen (PAP) from 2005 to 2017 in Johnson City, Tennessee

Downing, Amanda

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Do Nurses in the Clinical Setting Who Are Experiencing Burnout Influence Patient Safety and Quality of Care?

Foster, Stephen

<https://dc.etsu.edu/asrf/2022/schedule/143>

Effects of Long-acting Kappa-opioid Receptor Antagonism on Compulsive Cocaine Self-administration

Gaskill, Ellen

<https://dc.etsu.edu/asrf/2022/schedule/35>

Comparison of Short Chain Volatile Fatty Acids in the Breastmilk of Normal and Overweight/Obese Mothers

Kleine, Hazlee

<https://dc.etsu.edu/asrf/2022/schedule/39>

Circadian Effects of Acebutolol Administration in the Scn1b^{-/-} Dravet Syndrome Mouse Model

Magiera, Kailey

<https://dc.etsu.edu/asrf/2022/schedule/132>

Conditioned Flavor Cues Associated with Alcohol-Drinking during Adolescence Affect The Incentive Properties of The Cue in Adulthood

Patel, Shivam

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Charting the Microbiome Biodiversity of the Appalachian Highlands Region: A Novel Study

Stallworth, Lindsey

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Fecal Fermentation Profile, Nutrient Proximate Analysis and Well-being of Aerobic versus Anaerobically Trained Female Athletes

Undergraduate Students-Social Sciences

Armstrong, Baylee

<https://dc.etsu.edu/asrf/2022/schedule/139>

Risk and Protective Factors for Depression and Anxiety in PCOS

Boyer, Thomas

<https://dc.etsu.edu/asrf/2022/schedule/27>

An Exploratory Analysis of Stress, Burnout, and Depression in the IECMH Workforce

Carter, Gracie

<https://dc.etsu.edu/asrf/2022/schedule/17>

The Effect Of Openly LGBTQ+ Faculty on LGBTQ+ Students at a University In Central Appalachian

Colbert, Janaya

<https://dc.etsu.edu/asrf/2022/schedule/81>

Drug Related Crimes and Overdoses During the COVID-19 Pandemic

Jordan, Meredith

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The Negative Relationship between Religiosity and Substance Use

Siegel, Erin

<https://dc.etsu.edu/asrf/2022/schedule/79>

Intimate Partner Violence and COVID-19

Terrell, Carmen

<https://dc.etsu.edu/asrf/2022/schedule/137>

Healthcare Discrimination in Gender and Ethnically Diverse Individuals Living with PCOS

Tisinger, Sarah

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Emergency Management Service (s) Endorsement for First Generational Students: Understanding, Validating, and Promoting Vulnerable Population

Whisman, Emily

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Nonverbal Autism

Undergraduate Students-STEM + C

Bowen, Noah

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*Survey of Sites Where *Notophthalmus viridescens* May Come into Contact with Human Activity*

Cain, Amyre

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Comparative Case Study: The history of Sundown Towns

Cutright, Josh

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Heterogeneous Superacidic Catalyst for Friedel-Crafts Alkylation

Eaton, Danielle

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Hydrologic analyses of Rocky Mount State Historic Site

Hewa, Joseph

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Classifying Quenching Galaxies: Comparing Methods

Martinson, Brianna

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Stumbling into Virtual Worlds. How Resolution Affects Users' Immersion in Virtual Reality and Implications for Virtual Reality in Therapeutic Applications

Shepherd, Alexandria

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Extraordinary Variation in Circadian Free-Running Periods Observed in Spiders Appears to be Limited to the Superfamily Araneoidea

Whitinger, Andrew

<https://dc.etsu.edu/asrf/2022/schedule/21>

Intraday Algorithmic Trading using Momentum and Long Short-Term Memory Network Strategies

Undergraduate Students-Non-competitive

Brown-Ezell, Dawson

<https://dc.etsu.edu/asrf/2022/schedule/60>

The Fecal Fermentation Profile of Twins and Infants with Opioid Exposure

Erhabor, Eseosasere

<https://dc.etsu.edu/asrf/2022/schedule/25>

The Development of a Hybrid Ergonomic Walker for a Patient Suffering from Multiple System Atrophy Cerebellar Type I

Faidley, Paula

<https://dc.etsu.edu/asrf/2022/schedule/147>

Android-Based Mobile App Design for COVID-19 Tracking

Hart, Maverick

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Designing an Economical Vertical Conveyor to Model Industry Practice in Technology Lab

Lewis, Willow

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The Fecal Fermentation Profile of Infants with Different Feeding Modalities

Randolph, Griffin

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An Examination of Reported Child Sexual Abuse Cases Before and During COVID-19 in Tennessee

Truelove, Julianne

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Experimental Food Explorations: Increasing the Antioxidant Content of a Reese's Dessert Cup has Potential for Improved Dietary Intake in Cancer Patients