Welcome

Welcome to the 10th edition of the Austin College Student Scholarship Conference! We are celebrating an entire decade of this event, which showcases our students’ intellectual curiosity and their participation in the pursuit of new knowledge and new achievement. Over the course of the past 10 years, there have been more than 1,700 student presentations. We are especially pleased that this year the conference is fully in person.

One of the hallmarks of an Austin College education is our belief that learning takes place everywhere. Our students go beyond the boundaries of the classroom and into the laboratory, the studio, the stage, and the community. The work presented here demonstrates how students have extended their learning across many disciplines and methods of study.

Research and scholarship are not only valuable in their own right; the process brings with it many other positive outcomes. Students develop a variety of communication skills to present their results. They gain persistence, patience, and commitment by testing their own hypotheses, considering alternate solutions, and seeing their own original research questions through to completion. All of these efforts serve students well in whatever future interests they pursue.

Another hallmark of an Austin College education is the individual mentoring relationships our students find here. Faculty members demonstrate their own intellectual curiosity through academic pursuits and also create structures that both engage students and provide opportunities for them to embark on independent study. Without faculty support and guidance, this conference would not be possible. I would like to particularly thank the Conference Planning Committee for the time and energy they spent providing a showcase for student achievement of such depth and breadth.

This conference is designed to encourage dialogue and engagement. We hope that you will take this opportunity to meet new people and encounter new ideas.

Sincerely,

Steven P. O'Day, J.D., L.H.D.
President
The Cecil H. and Ida M. Green Chair of Creative Educational Leadership

What is CREATE?
Center for Research, Experiential, Artistic & Transformative Education

CREATE is the home for student research at Austin College. Located in the Wright Campus Center, Room 204, CREATE helps administer opportunities for Undergraduate Research (UR) for Austin College students. What will you CREATE at Austin College?

Director of CREATE
Renee Countryman

ACSC Associate Coordinator
David Whelan

Scarborough Director
Mindy Landeck

Sciences Summer Research Director
David Aiello

Departmental Honors Program
Scott Langton

ENSURE Program Director
Lance Barton

Members at Large
Mikidadu Mohammed
Loriann Garcia

Student Representative
Jessica Hoffman
Congratulations to the 2nd Place Winner of the 2022 Schedule Poster Artwork
Joseph Cernero '25
Intended Majors: Public Health & Business
WHAT DID YOU LEARN TODAY?

We are interested in hearing about your presentation experience at the 2022 ACSC.

Participate in a Research survey for a chance to WIN a prize!!

You have two options:
1. use the QR code provided below, then email your confirmation page to CREATE@austincollege.edu or
2. Sign-in and complete the survey at the registration table or with one of our volunteers
Are you Creative?
Are you Artistic?
Are you Imaginative?

SUBMIT YOUR WORK TO
SUSPENSION
LITERARY MAGAZINE

POETRY
FICTION
DRAMA
PHOTOGRAPHY
ESSAY
ART
ORIGINAL WORK

Send inquiries and submissions to:
suspension@austincollage.edu

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Schedule of Events

Thursday

7:00 - 8:00 p.m.
Elevator Speech Competition
   Wright Campus Center’s Pouch Club

8:00 - 9:00 p.m.
VEX Robots in Action
   Wright Campus Center’s Pouch Club

Friday

1:30 - 3:30 p.m.
Poster Session I
   Mabee Hall, Wright Campus Center

3:45 - 5:05 p.m.
Oral Session I
   Wright Campus Center Rooms

5:30 - 7:30 p.m.
Theatre Reception
   Nation Learning Commons, Ida Green

7:30 p.m.
Theatre Performance: *These Shining Lives*, by Melanie Marnich
   Beardsley Arena Theatre, Ida Green

After Performance
The Austin College Improv Troupe
   Beardsley Arena Theatre, Ida Green

ACUMEN
Call for Papers

ACUMEN is Austin College’s student-run journal of research. Are you involved in a research project on campus? Have you written a paper for class you are particularly proud of? Submit your paper for publication! All subjects welcome.

How to Submit
Send your research paper (with bibliography) as .doc or .rtf to acumen@austincollege.edu

Submission Guidelines

- Submissions should be approximately 7-20 pages in length.
- Submissions may be the products of individual or class research, directed or independent studies. Please do not submit work that is up for publication elsewhere, such as honors theses or research done in collaboration with AC faculty.
- Students should consider their audience to be generally educated and well read. However, the emphasis on interdisciplinary exchange of ideas requires that technical terminology from any field be generally explained for this audience.
- Submissions may be selected for publication on a conditional basis, provided the student makes the necessary revisions.
- All papers must follow college guidelines for academic integrity.

For more information, or if you are interested in participating in Acumen as a member of the review board, please email the editor at acumen@austincollege.edu
Art Reception
Saturday, March 26 5:00 pm
Forester Art Complex

Christine Tomasino
Tristian Reno
Samuel Skinner
Suspension and ALPHA PSI OMEGA

Schedule of Events

Saturday

9:00 - 11:00 a.m.
Poster Session II
Mabee Hall, Wright Campus Center

11:15 - 12:15 p.m.
Honor’s Panel
Wright Campus Center Living Room

1:00 - 2:00 p.m.
Alumni Panel
Wright Campus Center Living Room

2:15 - 3:45 p.m.
Oral Session II
Wright Campus Center Rooms

4:00 - 4:50 p.m.
Music Recital
Craig Recital Hall

5:00 p.m.
Raise Your Voice Performance & Art Reception
Forster Art Gallery
Marginalized voices deserve spaces for their voices to be heard and embrace their sense of self-expression. These individuals with diverse backgrounds can address aspects of their own intersectionality like gender, queerness, ethnicity, and other topics in relation to experiences and identity. Art and literature are thriving spaces of expression for marginalized voice to help get their name and talents out into the world. Suspension Literary Magazine, as a campus publication, works to create such a space for the students of Austin College. This year’s “Raise Your Voice”, a performance produced in collaboration with Alpha Psi Omega, is a celebration of women and non-binary artists and writers of color. Selected students will read literary pieces, ranging from monologues from television shows to original poetry. Since Suspension emphasizes literature as well as visual art, there will be displays with student-made artwork, including digital art, photography, and traditional art. Through this performance and exhibit, we encourage the campus community to listen to marginalized voices as well as create a space for individuals of all backgrounds to be seen and heard.
Conference Music Recital
Saturday, March 26 4:00 pm - 4:50 pm
Craig Recital Hall

L'Estro Armonico: Vivaldi's Harmonic Whim
A Lecture Recital by
Andrew Kim, ’22, violin
Andres Hernandez, ‘22, violin
Assisted by
Timothy Jenkins, piano

Becca Tobias
Alyssa Vyrva
Breana Wooten
Chloë Bachofen

Student Contributors
Katherine McBroom
Carrie McIntyre
Roopika Menta Kishore
Katelyn McComack-Morris
Grace Milligan
Isabel Murphy
Adam Myers
Aguiele Ndoungla
Henry Neal
Keegan Nichols
Tanner O'Dwyer
Madelyn Oliver
Elizabeth Pack
Hersh Patel
Bailey Payne
Enrique Pineda Jr.
Theresa Pohl
Isbah Plumber
Shruti Raghavan
Larry Ramirez Quintana
Weikai Rao
Laila Al-Rifai
Mia Rios
Diego Rodriguez
Zuni-Ire Rubio
Austin Rue
Apoorva Sakthivel
Diego Sanchez
Janaye Scales
Ruthann Schmiege
Sara Schuster
Amelia Schwarz
Michael Selby
Natalie Semine
Kylee Shanks
Lara Shehadeh

Katherine McBroom
Carrie McIntyre
Roopika Menta Kishore
Katelyn McComack-Morris
Grace Milligan
Isabel Murphy
Adam Myers
Aguiele Ndoungla
Henry Neal
Keegan Nichols
Tanner O'Dwyer
Madelyn Oliver
Elizabeth Pack
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Larry Ramirez Quintana
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Diego Sanchez
Janaye Scales
Ruthann Schmiege
Sara Schuster
Amelia Schwarz
Michael Selby
Natalie Semine
Kylee Shanks
Lara Shehadeh

Kennedy Shumate
Storm Simonin
Brett Skinner
Jack Hittson-Smith
Emma Solis
Hanna Stocks
Percy Stout
Allie Straeck
Minaal Syed
Harsha Tamtam
Nikida Thayoutharaj
Mya Thomas
Sierra Thomas
Rebecca Tobias
Paola Torres
Nevaeh Trevino
Olivia Trusty
Gisselle Melendez-Valles
Danya VanVuuren
Ray Vazquez
Sydney Versen
Anna Villasenor
Alyssa Vyrva
Tobias Ward II
Lael Weatherby
Breana Wooten
Michelle Zhu
Wright Campus Center 255

Detection of Chytrid Fungus via Environmental DNA in North Texas
Benjamin Berggren
Biology Department
Faculty Sponsor: Loriann Garcia

The Trials and Tribulations of Conducting Research During COVID
Ava Azizi
Sociology Program
Faculty Sponsor: Cate Bowman

Correlation between the Perpetual Health Disparity in African American Communities and the Standard of Living of Past Generations
Sara Schuster, Isbah Plumber
Public Health Program
Faculty Sponsor: Mathias Akuoko
Craft Talks: Tips for Creative Writers

Isabel Garrison
Zuni-Ire Rubio
Larry Ramirez Quintana
Shannon Fagen

When writers of fiction, poetry, and creative nonfiction speak about what they do, they speak of craft: there are patterns, structures, and tried-and-true methods that can be studied, examined, and emulated in order to construct great writing. Students in the Spring 2021 Form and Theory of Writing course explored various writing techniques and problems, drawing on the works and writing wisdom of writers such as J. R. R. Tolkien, Leigh Bardugo, Suzanne Collins, George Saunders, Gloria Steinem, Ocean Vuong, Jericho Brown, and Yoko Tawada. Craft essays can be both heavily-researched and deeply personal, and these student writers’ engaging essays touch on a variety of topics: effective world-building for fantasy writers, writing in a language other than your “mother tongue,” the utility of love triangles in shaping plot and building characters, and discovering what it means (and how) to write with purpose.

“Art Contest Winner”

Congratulations to the Winner of the 2022 Abstract Book Cover Artwork Design Contest

Ryann Ashlock ‘23
Major: Art
Minor: Media Studies

If you are interested in seeing your art work on our cover or on the posters we will use to advertise our 2023 Austin College Scholarship Conference, please keep in mind that next year’s due date will be at the beginning of the Spring 2023 semester.

2021 Winner Rachel Young
2019 Winner Phung Banh
2020 Winner Nadia Hannon
Elevator Speech Competition

Thursday, March 24 from 7:00 - 8:00 p.m. in the Wright Campus Center’s Pouch Club for an Elevator Speech Competition. Prizes will be awarded. Students will be judged by special “celebrity” judges.

What is an elevator Speech?
Imagine that you have just entered an elevator with Bill and Melinda Gates, who have enough money to fund any research project (and do in many different disciplines). They smile, say hello, and ask “why are you here this evening?” They are now your captive audience for this short elevator ride on your way to the 2020 ACSC. You have only one chance to make your “pitch” and get your project funded to be a hero to your faculty mentor … in your major … in your department … in your division … to be the most awesome person on campus forever … okay well, at least to be able to guarantee that your research project continues and that many other AC students have the opportunity and the experience that you did. What would you do with that one opportunity of a lifetime?

Wright Campus Center 254A

Why do People Enjoy being Afraid? A Guide to Constructing a Safe and Effective Haunted House
William Bridgewater
Art Department
Faculty Sponsor: Kirk Everist

Evaluation of the Relationship Between a High-fat Diet and Gut Microbiome Health in Hibernating Ground Squirrels (Ictidomys tridecemlineatus)
Emma Solis
Biology Department
Faculty Sponsor: Jessica Healy

Are Delta Scuti Stars Different if They are in Algol-type Binaries?
Brett Skinner
Physics Department
Faculty Sponsor: David Whelan
Students from English 114 researched and wrote on various aspects on the condition of loneliness in American society. Through their research they discovered how different writers and thinkers engage with communicating on the "epidemic of loneliness." Students defined, qualified, and put forth various calls to action on how to address this issue and translated their written research papers into different mediums to share their findings to increase awareness and offer further possibilities on how to address this issue. From infographics, podcasts, brochures, videos, and even graphic memoir, students share insights on why and how the epidemic of loneliness effects people from marginalized groups, single parents, students, and other populations.

VEX U is a competition for university students with the aim of getting them involved in real hands-on engineering challenges. Teams around the country start from the same VEX robotics kit and build robots that participate in games at competitions and tournaments. Each game lasts 2 minutes and consists of an autonomous period, during which the robots move based on pre-programmed routines, and a driver control period, during which the robots can be controlled through a radio controller. In preparation for this year’s competition, we have built two robots that are designed to score points by placing rings onto goals and lifting goals onto platforms. We will perform demonstrations of our robots in action.
Austin College Improv Troupe
Performances follow
These Shining Lives at the
Beardsley Arena Theatre

Thursday, March 24, 2022
Saturday, March 26

Olivia Trusty
Chloë Bachofen
Shannon Fagen
Katelyn McComack-Morris
Grant Garrison
Lindy Luker
Roshni Khosla
Percy Stout
Deedee Jansen

Coached by Dr. Kirk Everist

Saturday Oral Session 2: 2:15 pm - 3:45 pm

Room 231
Moderator: Lisha Storey
Expository Writing: Perspectives on Loneliness
Dajia Campbell
Isbah Plumber
Michelle Zhu

Room 254A
Moderator: Jessica Healy
2:15
William Bridgewater
2:35
Emma Solis
2:55
Brett Skinner

Room 254B
Moderator: Meg Brandl
Craft Talks: Tips for Creating Writers
Isabel Garrison
Zuni-Ire Rubio
Larry Ramirez Quintana
Shannon Fagen

Room 255
Moderator: Loriann Garcia
2:15
Benjamin Berggren
2:35
Ava Azizi
2:55
Sara Schuster &
Isbah Plumber
Student Oral Presentations
Block II

Saturday, March 21, 2020
2:15pm - 3:45 pm

Poster Sessions

Mabee Hall

Session 1: Odd Numbers
Friday, March 25, 1:30 p.m. - 3:30 p.m.

Session 2: Even Numbers
Saturday, March 26, 9:00 a.m. - 11:00 a.m.
Using Behavior Risk Factor Surveillance System 2018 Data to Assess the Association Between Insufficient Sleep and Cardiovascular Disease
Isbah Plumber & Saritha Bangara
Public Health Program, Austin College
Abstract #1

Mating Preference and Gender Presentation
Matilda Gajardo, Nevaeh Trevino, Carlos Estrada, Amelia Schwarz, & Matt Findley
Psychology, Austin College
Abstract #2

Undergraduate Research in the Time of COVID: NASA TESS Follow-Up Observations at Austin College’s Adams Observatory Assist in Exoplanet Discoveries
Brett Skinner, Neil Cutting, Lindy Luker, & David Baker
Physics Department, Austin College
Abstract #3

Alumni Panel
Wright Campus Center Living Room
Saturday, March 26, 2022
1:00 p.m. - 2:00 p.m.

Seth Howard ’20 (Economics)
Rachael Newsom ‘18 (Classical and Modern Language)
Rebekah Urban ‘18 (Psychology)

Moderator: President Steven O’Day
Honors Student Panel

Wright Campus Center
Living Room

Saturday, March 26, 2020
11:15 a.m. - 12:15 p.m.

Ishbah Plumber (Public Health)
Charley Bartolo (Anthropology)
Sonia Charales (English)
Jessica Hoffman (Biology)

Moderator: President Steven O’Day

The Effect of Antibiotic Treatment on pCREB and c-Fos expression in the Hippocampus of Male, Long-Evans Rats
Roopika Menta Kishore, Danya Van Vuuren, Janaye Scales, Anna Villasenor, & Renee Countryman
Neuroscience Program, Austin College
Abstract #4

Purification of Beta-2-microglobulin
Georgia Burton & John Richardson
Chemistry Department, Austin College
Abstract #5

Investigating the Role of Epithelial to Mesenchymal Transition (EMT) on PA28-gamma Expression
Taylor-Jade Higgins, Shania Banh, Riley Cregg, & Lance Barton
Biology Department, Austin College
Abstract #6

Species Distributions of Small Mammals in the Blackland Prairie Coregion Change Over Time
Kaitlyn Malone, Abby Maeng, Adam Myers, & Jessica Healy
Biology Department, Austin College
Abstract #7
Curvature and Closed Geodesics in Staircase Metric Manifolds
Justus Fagan & Jack Mealy
Math Department, Austin College
Abstract #8

pH Effects of Beta-2-microglobulin Misfolding
Miranda Galvan & John Richardson
Biochemistry Program, Austin College
Abstract #9

Women in the Circus
Clara Harper & Felix Harcourt
History Department, Austin College
Abstract #10

A Greener Approach to the Synthesis of Bis-Urea Organogelators
Jade Kemp & Andy Carr
Chemistry Department, Austin College
Abstract #11

B2m Aggregation
Hersh Patel & John Richardson
Biochemistry Program, Austin College
Abstract #12
These Shining Lives
by Melanie Marnich
directed by Olivia Trusty '22
Thursday, Friday, and Saturday, March 24 - 26
7:30 pm in the Beardsley Arena Theatre (Ida Green)
Cast and Crew

Catherine Donohue..................................Chloë Bachofen*
Tom Donohue........................................Rhys M‘Comack-Morris*
Charlotte Purcell.....................................Theresa Pohl
Frances O’Connoll....................................Allie Straeck*
Pearl Payne.............................................Kennedy Shumate
Rufus Reed............................................William Bridgwater*
Director................................................Olivia Trusty*
Stage Manager......................................Sydney Versen*
Assistant Stage Manager(s)...............Deedee Jansen &
                                        Elizabeth Funderburk
Lighting..................................................Liz Banks
Board Op..............................................Aguiele Ndoungla
Sound Design and Board Op.....................Chase Chavez
Scenic Design.......................................Dan Pucul*
Costumes..............................................Brooke Lee
Props Master.........................................Sawyer Ahmad*
Crew....................................................Megan Kiel
Projection Design and Op.........................Mia Rios
Stage Makeup Artists.........................Mia Rios & Bailey Payne
House Manager.................................Bailey Payne

*Denotes membership in Alpha Psi Omega

The Spectral Type of Algol C
Megan Frank, Jessica Junginger, & David Whelan
Physics Department, Austin College
Abstract #13

Health Behaviors and Outgroup Prejudice during COVID-19
Cielo Carreno & Michele Helfrich
Psychology Department, Austin College
Abstract #14

Temporal Changes in Mammalian Carnivore Distribution in the Texas Blackland Prairies
Adam Myers & Jessica Healy
Biology Department, Austin College
Abstract #15

The Effect of Diet Manipulation on Long-Evans Rats as Represented in the Hypothalamus and Hippocampus
Danya Van Vuuren, Roopika Menta Kishmore, Janaye Scales, Ana Villasenor, & Renee Countryman
Neuroscience Program, Austin College
Abstract #16
Gender, Social Ostracism, Prosocial Behavior, and (Pretty Much) Everything in Between
Storm Simonin, Logan Herring, Grace Milligan, & Michele Helfrich
Psychology Department, Austin College
Abstract #17

Presence of Deer Mice (*Peromyscus maniculatus*) and Hantavirus Cases Correlated with Human Population Densities in Texas
Abbigal Maeng & Jessica Healy
Biology Department, Austin College
Abstract #18

Glyphosate’s Effects on the Development of Zebrafish (*Danio rerio*)
Mia Hibner & Kelli Carroll
Biology Department, Austin College
Abstract #19

Synthesis and Characterization of Materials for Radiation Detection
Kylee Shanks, Paola Torres, & Andra Petrean
Physics Department, Austin College
Abstract #20

Wright Campus Center 231

Interdisciplinary Interactions Between Science and Theatre
Olivia Trusty
Theatre Program
Faculty Sponsor: Kirk Everist

The Creation of Contemporary Indian American Poetry
Sonia Charales
English Department
Faculty Sponsor: Greg Kinzer

Who’s Your Neighbor? Understanding the Minimal Neighborhood Property for Finding Limits
Prithvi Kalkunte
Mathematics and Computer Science Department
Faculty Sponsor: Andrea Overbay
The Fibrous Co-assembly of Oppositely Charged alpha-helical Peptides
Austin Rue
Biochemistry Program
Faculty Sponsor: Jim Hebda

A Proposal for the Student Loan Crisis
Shannon Fagen
Psychology Department
Faculty Sponsor: Peter Marks

Investigating the role of RNA Polymerase II Stalling in spt4Δ-mediated Rescue of Saccharomyces cerevisiae Mutants lacking PGM2
Ruthann Schmiege
Biology Department
Faculty Sponsor: David Aiello

Neurocognitive Performance During Recreational Lobster Harvesting Dives
Gabriel Graf1, Stefanie Martina2, Benjamin Kistler2, Grant Dong1, Rhiannon Brenner1, Elizabeth Helfrich1, Catherine Harris1, Elissa Scherer1, Robert Furberg3,4, & Frauke Tillmans1
Biology Department, Austin College1, Divers Alert Network, Durham, NC2, RTI International Research Triangle Park, NC3, Eir Labs, Chapel Hill, NC4
Abstract #21

Women’s Health Education for Victims of Intimate Partner Violence (IPV) at the Grayson Crisis Center, Sherman, TX
Sarah Joesph, Kathy Tran, Rebecca Osei, & Saritha Bangara
Public Health Program, Austin College
Abstract #21

Identification and Characterization of Tango6 in Development
Sydney Versen, Hannah Herron, & Kelli Carroll
Biology Department, Austin College
Abstract #23
Characterization of PA28-gamma-deficient MEF Mutagenesis in Comparison with the 4T1 Breast Cancer Model
Electra Coffman, Ray Vazquez, & Lance Barton
Biology Department, Austin College,
Abstract #24

Efforts Towards the Total Synthesis of Anisucoumaramide
Andrew Kim, Beau Beshires,
Jack Hittson-Smith, & Ryan Felix
Chemistry Department, Austin College
Abstract #25

Synthesis and Characterization of Thin Films
Nereida Martinez, Paola Torres,
Kylee Shanks, & Andra Petrean
Physics Department, Austin College
Abstract #26

Exploration of the Biological Hallmarks of Cancer in Mus musculus cell lines A9 and Mutated PA28-gamma Deficient Cancer Clones
Brigid Fox, Henry Neal, & Lance Barton
Biology Department, Austin College
Abstract #27

Wright Campus Center 254A

Weight Stigma and Mental Health
Carrie McIntyre
Psychology Department
Faculty Sponsor: Danielle Franks

Investigating the Downstream Effect of the HOG and CWI MAPK Pathways on Gene Expression Changes Observed in the Saccharomyces cerevisiae pgm2Δ Mutant
Madelyn Oliver
Biology Department
Faculty Sponsor: David Aiello

An Anthropological Perspective on Gentrification in a Historic Neighborhood and the Restructuring of a City: the Case of the Lavaca Neighborhood in San Antonio
Nicole DeLuna
Anthropology Program
Faculty Sponsor: Terry Hoops
Exploring the Effects of MG Exposure on Cytosolic Ca$^{2+}$ Levels in the Absence of HACS and Intracellular Ca$^{2+}$ Efflux Channels
Harsha Tamtam
Biology Department
Faculty Sponsor: David Aiello

The Social Support Network and Community Difficulties Faced by Individuals with Ehlers-Danlos Syndrome and Their Perspective for People Outside Their Social Group
Charley Bartolo
Anthropology Program
Faculty Sponsor: Terry Hoops

Phenotypic Analysis of Cancer Cell Lines Following PA28-gamma Reduction Through CRISPR/Cas9
Jessica Hoffman
Biology Department
Faculty Sponsor: Lance Barton

Investigation of Anion Influence on 1,1’-methylenebis-4,4’-bipyridinium and its Coordination to (maleonitrile-2,3-dithiolato) Platinum(II)
Sara Schuster & Brad Smucker
Chemistry Department, Austin College
Abstract #28

The Fibrous Co-assembly of Oppositely Charged Alpha-helical Peptides
Austin Rue & Jim Hebda
Biochemistry Program, Austin College
Abstract #29

The Relationship Between Perceived Parenting Styles and Young Adult’s Sexual Self-concept
Eesha Hayee, Madison Gilmore, & Matt Findley
Psychology Department, Austin College
Abstract #30

VEX-U Robotics Competition: Change Up
Neil Cutting, Lindy Luker, Nereida Martinez, Diego Rodriguez, & Andra Petrean
Physics Department, Austin College
Abstract #31
Characterization of the Novel Gene Family DUF4585 in Zebrafish
Yasmine Bukhari¹, Douglas Anderson², Rhonda Bassel-Duby², Eric Olson², & Kelli Carroll²
Biology Department, Austin College & Molecular Biology, UT Southwestern²
Abstract #32

COVID-19 Masking Behaviors and the Perceived Empowerment and Confidence of Veiling Muslims
Hanna Stocks, Sierra Thomas, Rosemary Cortez, Carmen Guerrero-Castillo, & Michelle Helfrich
Psychology Department, Austin College
Abstract #33

A Characterization of the Role of the MRTF/SRF Pathway in Zebrafish Development
Taylor Dornseifer, BIOL324, & Kelli Carroll
Biology Department, Austin College
Abstract #34

College Distance from Home: Retrospective Study of First-Year Academic Performance
Natalie Semine, Marianna Bert, Logan Brummer, Lael Weatherby, & Matt Findley
Psychology Department, Austin College
Abstract #35

Friday Oral Session 1: 3:45-5:05

Room 255
3:45
Harsha Tamtam
4:05
Charley Bartolo
4:25
Prithvi Kalkunte
Moderator: Mindy Landeck

Room 254A
3:45
Carrie McIntyre
4:05
Madelyn Oliver
4:25
Nicole DeLuna
Moderator: Danielle Franks

Room 254B
3:45
Austin Rue
4:05
Shannon Fagan
4:25
Ruthann Schmiege
Moderator: David Whelan

Room 231
3:45
Olivia Trusty
4:05
Sonia Charales
4:25
Jessica Hoffman
Moderator: Kirk Everist
Student Oral Presentations
Block 1

Friday, March 20, 2020
3:45 p.m. - 5:05 p.m.

Exploring the Effects of MG Exposure on Cytosolic Ca$^{2+}$ Levels in the Absence of HACS and Intracellular Ca$^{2+}$ Efflux Channels
Harsha Tamtam, Michael Selby, Katherine McBroom, & David Aiello
Biology Department, Austin College
Abstract #36

Investigation of the Role of Anions in the Coordination of Bipyridinium Ligands with Platinum(II) Dithiolene Complexes
Henry Neal & Brad Smucker
Chemistry Department, Austin College
Abstract #37

A Tale of Three Widgets: Solutions for Improved Focusing of the Adams Observatory Guide Camera
Taiton Fox, Tanner O'Dwyer, & David Baker
Physics Department, Austin College
Abstract #38

PA28y Regulation of H4K20me3 under Genotoxic Stress
Electra Coffman, Astrid Grouls, Anna Sliz, & Lance Barton
Biology Department, Austin College
Abstract #39
The Selectivity of Plant and Pollinator
Frank Goodavish & Loriann Garcia
Biology Department, Austin College
Abstract #40

Utilizing Python to Create a 2D Model of the Incompressible Navier-Stokes Equations
Enrique Pineda Jr. & Huy Nguyen
Math and Computer Science Department, Austin College
Abstract #41

Synthesis of Carboxylic Acid Mono-Urea Ligands and Coordination to +2 Transition Metals
Rebecca Tobias & Andy Carr
Chemistry Department, Austin College
Abstract #42

Effect of High Fat Diet on 13-lined Ground Squirrel Food Consumption and Metabolic Rate
Emily Davis, Carolina Coreas, Emma Solis, Adam Myers, & Jessica Healy
Biology Department, Austin College
Abstract #43

VEX-U Robotics: Project ROO-STR
Enrique Pineda Jr., Diego Sanchez, & Andra Petrean
Physics Department, Austin College
Abstract #44

Examining Growth Phenotypes of the pgm2Δ Mutation in Saccharomyces cerevisiae Lacking or Overexpressing TPS1, NTH1, and ATH1
Shruti Raghavan, Lara Shehadeh, & David Aiello
Biology Department, Austin College
Abstract #45

Native Bee Biodiversity of Grayson Co.
Keegan Nichols, Ben Bergger, Frank Goodavish, & Loriann Garcia
Biology Department, Austin College
Abstract #46

Electrostatic Interactions in the C-Terminus of αB-Crystallin
Christian Peterson, Javier Moya, & Jim Hebda
Chemistry Department, Austin College
Abstract #47