

MINNESOTA
UNDERGRADUATE
SCHOLARS



11th Annual Minnesota Scholars Symposium

April 28, 2022



MINNESOTA STATE



ANOKA-RAMSEY
COMMUNITY COLLEGE
CAMBRIDGE • COON RAPIDS

Day At A Glance

Student Professional Development 9:30-10:30am

1. Grad School 101
2. Publishing Your Research

More Student Professional Development 2:15-3:15pm

1. Alumni Research Showcase
2. Career Services

Morning Meetings

8:00 Minnesota Scholars Planning Council
9:00 Conference Welcome and Introductions

Student Research Presentations

10:45-11:45am Session B
1:00-2:00pm Session C

Poster Session and Virtual Social Reception 3:30-5pm

Discussions with Poster Presenters, Professional Networking, and Social Hour

Morning Meetings

- 8:00 am – 9:00 am
MN State Scholars Planning Committee Meeting
(invitation only)
<https://minnstate.zoom.us/j/92694818743>
Meeting ID: 926 9481 8743 Passcode: 706556
 - 9:00 am – 9:30 am
General Welcome and Opening Remarks
<https://minnstate.zoom.us/j/93414280004>
Meeting ID: 934 1428 0004 Passcode: 300406
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Student Professional Development Concurrent Session A 1. Grad School 101 9:30-10:30am

(Facilitators: Alyssa Anderson and Marina Cetkovic-Cvrlje)

<https://minnstate.zoom.us/j/99720151468>

Meeting ID: 997 2015 1468 Passcode: 189191

Considering graduate school but not quite sure what to expect, how to find an advisor, or what type of program to pursue? This session is for you! Come learn from a student panel and hear about their experience and advice.

Student Panelists:

Alise Mendoza-ARCC/UofM: Alise transferred from Anoka Ramsey to the University of Minnesota in 2019 and graduated with her bachelor of science in Biology summer of 2021. She is currently working as a drug safety specialist for a pharmaceutical consulting company and is pursuing further education in medical writing and editing.

Christos Robertson -ARCC/UofM: Christos returned to school three years ago. I was a chef for a decade and grew a passion for cooking and growing food that was sustainably grown and healthy for you. I am now in the college of biological sciences at the University of Minnesota Twin-Cities in the department of Plant and Microbial Biology. I am doing research on plant-bacteria symbiotic interactions under Dr. Ford Denison. I have been accepted into the Trio-McNair Scholars program and am preparing my applications for graduate school and a NSF grant. I plan on getting my PhD in plant and microbial sciences.

Taylor Borgman-ARCC/Columbia University: In 2018 I transferred from Anoka Ramsey community college to the University of Minnesota where I obtained my bachelor's degree in Biochemistry with a minor in Nutrition. I am now attending Columbia University to pursue my PhD in Nutritional and Metabolic Biology. The majority of research I've conducted has a central focus on mechanisms of disease and medicine, including biochemical development of antibiotics, potential therapeutics for hepatocellular carcinoma, and mechanistic studies of ER stress, which occurs in neurodegenerative and metabolic diseases.

Kelsie Becklin-ARCC/UofM: Kelsie transferred from ARCC to the UMN College of Biological Sciences and graduated with her bachelor of science in Biology spring of 2017. She immediately entered the Comparative and Molecular Biosciences program at the UMN college of vet med where she studies childhood cancer using genetic engineering and stem cell biology.

Student Professional
Development
Concurrent Session A
2. Publishing your
Undergraduate
Research
9:30-10:30am

Facilitator: John Sinko, SCSU

<https://minnstate.zoom.us/j/98877286311>

Meeting ID: 988 7728 6311 Passcode: 152189

Pre-career student publications meaningfully document your research as you participate in the critical scientific process of sharing out discoveries. Published work demonstrates communication skills and work ethic for employers or graduate school committees. This workshop, intended for students who are new to academic publication, will explore the broad context of publishing, and discuss options, guidelines, and potential pitfalls.

Student Research Presentations Session B 10:45-11:45am

<https://minnstate.zoom.us/j/98046897280>

Meeting ID: 980 4689 7280 Passcode: 379209

Moderator - Alyssa Anderson, SMSU

1. Jessica Strand, Anoka-Ramsey Community College: *White-tailed Deer (Odocoileus virginianus) Behavior in an Actively Restored and Maintained Minnesota Wetland Ecosystem*
2. Joey Heinen, Southwest Minnesota State University: *Aggression in male Madagascar hissing cockroaches and its correlation with body size*
3. Adam Pagnano, Rochester Community and Technical College: *Analysis of Peroxide Bleach*

Student Research Presentations Session C 1-2pm

<https://minnstate.zoom.us/j/96475230989>

Meeting ID: 964 7523 0989 Passcode: 569548

Moderator: Marina Cetkovic-Cvrlje, SCSU

1. Kristopher Honetschlager, Winona State University: *A Brute Force Method of Discovering Information Hidden in Datasets*
 2. Tim Lux, St. Cloud State University: *Putin and the Czar: Autocracy and Dissent*
 3. Suad Ali, St. Cloud State University: *Is what you remember real? Quantitatively investigating the recognition of synthetic Generative Adversarial Network pictures (GANs)*
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Student Professional
Development
Concurrent Session D
Alumni Research
Showcase
2:15-3:15pm

<https://minnstate.zoom.us/j/92314313804>

Meeting ID: 923 1431 3804 Passcode: 025120

Christos Robertson -ARCC/UofM:

The Fitness of Rhizobia and the Plants
They Inhabit.

Taylor Borgman-ARCC/Columbia University:

A Novel Role for Lipid droplets in ER
Proteostasis

Kelsie Becklin-ARCC/UofM:

Bottom-up Cancer Modeling: Harnessing the
Power of Genetic Engineering and iPSC to
Understand Cancer Initiation and
Development

Student Professional Development Concurrent Session D Career Services 2:15-3:15pm

Presenter: Michelle Mucha (ARCC)

<https://minnstate.zoom.us/j/92766727392>

Meeting ID: 927 6672 7392 Passcode: 659620

Deciding on your future career can feel overwhelming. Career Counseling can help you find your way. Please join us for an introduction to services and resources that are available to help you to help discover your path. In addition, learn about job preparation and placement services.

Virtual Poster Session

Networking and Socializing in the Main Room, Poster Presenters in Breakout Rooms

<https://minnstate.zoom.us/j/99540962779> Meeting ID: 995 4096 2779 Passcode: 262991

Breakout Room 1

Himanshu Bhushan, WSU: Automatic Polyp Detection in Colonoscopy using Deep Learning

Bethany Lieser, ARCC: The Conservation of the GlyP Gene Across Highly Divergent Species of *Drosophila*

Jessica Strand, ARCC: Analysis of eIF4E1 Conservation and Synteny across *Drosophila* Species to Understand the Evolution of the Insulin Pathway

Courtney Snyder, SMSU: Mapping and Quantifying Bird Window Strikes at the SMSU Campus

Breakout Room 2

Hunter Harnett and Asma Yusuf, SCSU: Does Coca-Cola consumption potentiate diabetes development in NOD female mice?

Sierra Bermudez and Ujala Chawla, SCSU: Study of Immune Cells in Streptozotocin-Induced Diabetic C57CL/6 Mice Consuming Coca-Cola

Andrew Nardi, Wengelawit Molla and Ridwan Yussuf, SCSU: *The effects of Coca-Cola on diabetes incidence and glycemia levels in C57BL/6J mouse model*

Mitchell Fournier and Lacey Hallstrom, SCSU: Effects of Coca-Cola consumption in healthy mice

Alli Beste and Enock Ombengi, SCSU: T-Cell Function and Composition in NOD Mice Exposed to Coca-Cola

Breakout Room 3

Megan Reis, Jenna Dale and Skylar Fedoravicius, WSU: Emotional Experiences Among College Students Returning to Campus Amid the COVID-19 Pandemic.

Sean Bresnahan, SCSU: Online Eating Disorder Recovery Communities: Levels of engagement and perceived recovery help

Haneum Claude Lee, SCSU: Effect of Teleworking on Retirement Age