



August 5th, 2026: Directory of Undergraduate Student Presenters

Posters 1-93 in Centennial Room

Applied Plant Systems REEU

Beran, Thomas	67
Edwards, Trinity	68
Jurik, Lena	69
Kwasnick, Julia	70
Mann, Solomon	71
Moises, Jordan Ralph	72

Beneficial Bacteria REU

Luna Lopez, Rhaisabel	106
McIntyre, Grace	107

Beneficial Insects & Plant-Insect

Systems REEU

Calvert, Kimber	18
Dorsey, Alissa	20
Flint, Daisy	38
Gulley, Madylin	27
Linden, Andy	29
Marietta, Bryn	30
Palmer, Luke	35
Phillips, Mack	36
Plis, Elizaveta	28
Raynes, Ava	37
Rico-Gomez, Violeta	46
Slosser, Eleanor	19

Biomedical Engineering REU

Dudley, Elizabeth	84
Denzin, Allison	85
Gardner, Caroline	86
Knight, Maxwell	87
Manian, Sagarika	88
Rivadeneira-Vivar, Joshua	89
Walters, Lorelei	90
Weiby, Claire	91

Chemical Assembly REU

Adu-Prah, Vanessa	94
Crews, Isabel	95
Edward, Dagny	96
Gawron, Henry	97
Horn, Nathan	98
Inman, Ryan	99
Lee, Braden	100
Morrow, Gabriel	101
Steckel, Gina	102
Vlcek, Oscar	103

Crop-to-Food Innovation REEU

Crum, Makenzie	53
Fulton, Jennifer	54
Huynh, William	55
Jakes, Shayna	56
Kim, Noah	57
Olafuyi, Temitope	58
Ropa, Lorena	59
Stratman, Ryan	60
Walter, Joey	61
Whitlow, Naomi	62

Engineering Education Research

Messineo, Sophia	92
Vesely, Soren	93

Nanotechnology REU

Delja, Mia	126
Gutierrez, Amanda	127
Loos, Jake	128

Quantum Materials REU

Hanson, Victor	113
----------------	-----

Sustainability & Resilience in Rural Areas REU

Bolton, Isabelle	63
Casaje, Tiffany	64
Cauley, Anthony	73
Gabrys, Grace	74
Gaines, Aniya	75
Gordon, Alex	76
Kahler, Amy	77
Neblett, Nathan	78
Paschke, Lillian	79
Staines, Phoenix	80
Velazquez, Amanda	81
Veras, Angel	82

US CMS PURSUE

Martinez Baron, Julian	112
Alejandro	

Virology USREV

Herrera, Oscar	43
Shulyak, Mary	44
Wolfe, Alexander	45

McNair Scholars Program

Bilby, Trace	21
Boutard, Harley	33
Burks, Aida	31
Cemer, Caitlin	26
Chhoeung, Elizabeth	23
Hernandez, Justin	34
Maddox, Isabella	25
Nielson, Grant	24
Schutte, Savannah	22
Winn, Lauren	32

Nebraska Center for Energy Sciences Research

Davidson, Trent	129
Hixson, Morgan	130
Pirali, Aram	131
Mohanty, Samarpan	132
Richler, Olivia	144
Rivera Romero, Jorge	145
Sayre, Calvin	146

Nebraska Center for Materials & Nanoscience (NCMN)

Coleman, Jeyvin	125
-----------------	-----

Nebraska Center for Materials and Nanoscience & Young Nebraska Scientists High School Interns

Ahmed, Nsreen	139
Ariunsaikhan, Irmuun	120
Bitker, Josiah	138
Bobaru, Brad	121
Erickson, Ezra	122
Foss, Peter	140
Kumm, Emily	118
Lerda, Santino	123
Mawut, Amuor	124
Sintsky, Victoria	137
Sorto, Xavier	136
Wang, Christopher	134
Wang, Luca	119
Wang, Wei	133
Zhang, Edward	135

Nebraska Water Center

Undergraduate

Student Research Fellowship

Vandenberg, Tucker	108
--------------------	-----

STEM-POWER

Castro Portales, Kevin	11
Kuenzler, Jordan	12
Montepeque, Lily	13
Rogers, Alexandra	14

Ciobanu Lab

Fernando, Supun	10
-----------------	----

Saha Lab

Proctor, Hannah	65
-----------------	----

Sukumaran Lab

Sathish, Shriish	1
Minoungou, Stives JB	
Wendyam	2

UCARE

Aikin, Kalyx	4
Alesio, Josephine	114
Belleque, Caroline	39
Bhowmick, Aruneem	41
Cancino, Alex	83
Conway, Eamonn	47
Davis, Owen	116
Flyr, Matthew	7
Gamez Martinez, Jennifer	8
Isom, Evy	7
Lackey, Gabriel	66
Lionberger, Alexandria	49
Lu, Jessica	40
Moore, Macey	143
Murphy, Sophia	48
Natho, Kaylee	3
Nguyen, Angella	51
Nutzman, Jeffrey	9
Popa, Markus	83

UCARE (Cont.)

Raghuvanshi,	11
Shrimai	115
Rousseau, Desiree	15
Schubert, Henrike	117
Schuerman, Eli	16
Snodgrass, Owen	109
Spiehs, Hannah	52
Stewart, Anna	47
Stokes, Hadley	6
Walkenhorst, Chloe	110
Washburn, Sam	50
Wong, Emmalee	17

Visit the symposium webpage by scanning the QR code below to take the directory with you!



Poster Details – Alphabetical by Last Name

Adu-Prah, Vanessa

Research Group: Nebraska Summer Research Program

Poster Location: 94

Poster Title: Analysis of Binding by Antibiotic Micropollutants with Polystyrene Nanoparticles using Microscale Affinity Chromatography

Advisor: David Hage

Ahmed, Nsreen

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 139

Poster Title: Ferroelectricity in Hafnium Oxide (HfO₂)

Advisor: Xiaoshan Xu

Aikin, Kalyx

Research Group: UCARE

Poster Location: 4

Poster Title: Lemon Shark Growth: A Tail of Two Nursery Habitats

Advisor: Rene Martin

Alesio, Josephine

Research Group: UCARE

Poster Location: 114

Poster Title: Development of Novel Fluorogenic Dyes to Explore the Role of Fluorine in Fluorescence Activation

Advisor: Catherine Eichhorn

Ariunsaikhan, Irmuun

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 120

Poster Title: PFAS Removal Using Regenerated 3D Printed Graphene-Polymer Aerogel

Advisor: Nirupam Aich

Belleque, Caroline

Research Group: UCARE

Poster Location: 39

Poster Title: What makes something a college course?: Trigonometry at the high school and collegiate levels

Advisor: Yvonne Lai

Beran, Thomas

Research Group: Nebraska Summer Research Program

Poster Location: 67

Poster Title: A Sustainability & Effectiveness Comparison:
Irrigation with Synthetic and Natural Hydrogels

Advisor: Christian Stephenson

Bhowmick, Aruneem

Research Group: UCARE

Poster Location: 41

Poster Title: On Representation-Geometric Approaches to Principled Early Halting in Large
Language Models

Advisor: Seth Polsley

Bilby, Trace

Research Group: McNair Scholars Program

Poster Location: 21

Poster Title: Risk and Resilience in School-Based Delinquency

Advisor: Trisha Rhodes

Bitker, Josiah

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska
Scientists High School Interns

Poster Location: 138

Poster Title: Torsional Chiral Piezoelectrics

Advisor: Shireen Adenwalla

Bobaru, Brad

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska
Scientists High School Interns

Poster Location: 121

Poster Title: Evaluation-Driven LLM Agents for Nonlinear Dynamics Visualization

Advisor: Piyush Grover

Bolton, Isabelle

Research Group: Nebraska Summer Research Program

Poster Location: 63

Poster Title: Evaluating LaserGenerated Micro- and Nanoplastics as Realistic Surrogates for ConsumerDerived Particles

Advisor: Yusong Li

Boutard, Harley

Research Group: McNair Scholars Program

Poster Location: 33

Poster Title: Characterizing How and Why Sexual and Gender Minority College Students Use Cannabis in a Cannabis-Prohibitive State

Advisor: Dennis McChargue

Burks, Aida

Research Group: McNair Scholars Program

Poster Location: 31

Poster Title: Childhood BMI and Self-Worth: Do Parental Emotional Support Matter?

Advisor: Seulki Kim

Calvert, Kimber

Research Group: Nebraska Summer Research Program

Poster Location: 18

Poster Title: Mutation in the Flavonoid Biosynthesis Pathway Affects Sorghum Defense Against Sugarcane Aphid

Advisor: Joe Louis

Cancino, Alex

Research Group: UCARE

Poster Location: 83

Poster Title: Tunable Friction through Electroosmotic Actuation for a Bio Inspired Robot

Advisor: Eric Markvicka

Casaje, Tiffany

Research Group: Nebraska Summer Research Program

Poster Location: 64

Poster Title: Rapid Large-Scale Screening and Mapping of Ballast Fouling Using UAS Imagery and Deep Learning

Advisor: Richard Wood

Castro Portales, Kevin

Research Group: STEM-POWER

Poster Location: 11

Poster Title: Studies of pharmaceutical micropollutant-humic acid interactions using microscale affinity chromatography

Advisor: David Hage

Cauley, Anthony

Research Group: Nebraska Summer Research Program

Poster Location: 73

Poster Title: Improving Fixed-Facility Accessibility Through Budgeted Network Modification

Advisor: Nathan Huynh

Cemer, Caitlin

Research Group: McNair Scholars Program

Poster Location: 26

Poster Title: Understanding the interaction of the gap genes *kruppel* and *hunchback* in the embryological development of the western corn rootworm (*Diabrotica vigifera vigifera* LeConte)

Advisor: Ana M. Velez

Chhoeung, Elizabeth

Research Group: McNair Scholars Program

Poster Location: 23

Poster Title: Nitrate, Nitrite, and Arsenic Co-occurrence in Lower Elkhorn Natural Resources District Groundwater Wells.

Advisor: Martha Rhoades

Coleman, Jeyvin

Research Group: Nebraska Center for Materials and Nanoscience (NCMN)

Poster Location: 125

Poster Title: Polypeptide-based Bio-organic Ambipolar Transistors

Advisor: Peter Dowben

Conway, Eamonn

Research Group: UCARE

Poster Location: 47

Poster Title: Nicotine Enhancement of Sucrose-, Stevia-, and Sucralose- Sweetened Alcohol Reinforcement
Advisor: Scott Barrett

Crews, Isabel

Research Group: Nebraska Summer Research Program
Poster Location: 95
Poster Title: High-Throughput Fabrication of Shape-Controlled Microgels
Advisor: Stephen A. Morin

Crum, Makenzie

Research Group: Nebraska Summer Research Program
Poster Location: 53
Poster Title: Precision Nutrition: Variation in maize arabinoxylan drives differential growth of Bifidobacterium longum populations in the gut microbiome
Advisor: Andrew K. Benson

Davidson, Trent

Research Group: Nebraska Center for Energy Sciences Research
Poster Location: 129
Poster Title: Solid-State Transformers (SSTs) for AI Infrastructure Power Distribution
Advisor: Jun Wang

Davis, Owen

Research Group: UCARE
Poster Location: 116
Poster Title: Plasma-Assisted Destruction on Polypropylene Nanoparticles
Advisor: Barry Cheung

Delja, Mia

Research Group: Nebraska Summer Research Program
Poster Location: 126
Poster Title: Exploring Ion-Conducting Polymer Membranes for Renewable Energy Technologies
Advisor: Shudipto Konika Dishari

Denzin, Allison

Research Group: Nebraska Summer Research Program
Poster Location: 85

Poster Title: Nitric Oxide's Role in Doxorubicin Sensitivity for Breast Cancer Cells
Advisor: Nicole Iverson

Dorsey, Alissa

Research Group: Nebraska Summer Research Program

Poster Location: 20

Poster Title: Mosquito-Associated Yeasts and Fungi in Pollinator Gardens

Advisor: Troy Anderson

Dudley, Elizabeth

Research Group: Nebraska Summer Research Program

Poster Location: 84

Poster Title: Optimization and Prototyping of Upper Limb Rehabilitation Robot using 5-Bar Linkage Mechanism with Variable Stiffness

Advisor: Carl Nelson

Edward, Dagny

Research Group: Nebraska Summer Research Program

Poster Location: 96

Poster Title: Adaptation of E. coli Protocol to P. urativorans Ribosomal Top-Down Analysis

Advisor: Jared Shaw

Edwards, Trinity

Research Group: Nebraska Summer Research Program

Poster Location: 68

Poster Title: Productivity and Diversity Across an Agricultural Intensity Gradient in Nebraska's Grazing Lands

Advisor: Daniel Uden

Erickson, Ezra

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 122

Poster Title: Electroosmosis-Driven Soft Valve for Robotic Control

Advisor: Eric Markvicka

Fernando, Supun

Research Group: Ciobanu Lab

Poster Location: 10

Poster Title: Understanding Host x Pathogen interactions in Swine Infectious Diseases
Advisor: Daniel Ciobanu

Flint, Daisy

Research Group: Nebraska Summer Research Program

Poster Location: 38

Poster Title: The Diverse Ecology of Insect Interactions with Milkweed Flowers

Advisor: Tom Weissling, Doug Golick, Louis Nastasi

Flyr, Matthew

Research Group: UCARE

Poster Location: 7

Poster Title: Investigating Demographics and Dynamics of a Bullsnaek (Pituophis catenifer) population after a rodent population surge

Advisor: Dennis Ferraro

Foss, Peter

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 140

Poster Title: Impact of Ir-Doping and Oxygen Vacancies on RuO₂ Facet Stability

Advisor: Vitaly Alexandrov

Fulton, Jennifer

Research Group: Nebraska Summer Research Program

Poster Location: 54

Poster Title: Structural Specificity of γ -Glutamyl Valine in Promoting the Growth of Akkermansia muciniphila for Atherosclerosis Prevention

Advisor: Amanda Ramer-Tait

Gabrys, Grace

Research Group: Nebraska Summer Research Program

Poster Location: 74

Poster Title: Where Pharmaceutical Deserts Are and How to Serve Them: A Geospatial Index and Autonomous Routing Study in Rural Nebraska

Advisor: Wissam Kontar

Gaines, Aniya

Research Group: Nebraska Summer Research Program

Poster Location: 75

Poster Title: Investigating Rain-on-Snow Flood Events in the Shell Creek Watershed

Advisor: Tirthankar Roy

Gamez Martinez, Jennifer

Research Group: UCARE

Poster Location: 8

Poster Title: Construction of Plasmids for mRNA Epigraph Influenza Vaccine

Advisor: Eric A. Weaver

Gardner, Caroline

Research Group: Nebraska Summer Research Program

Poster Location: 86

Poster Title: Wearable Ultrasound Patch: Fabrication of a Matching Layer

Advisor: Gregory Bashford

Gawron, Henry

Research Group: Nebraska Summer Research Program

Poster Location: 97

Poster Title: Thermally Ultra-Robust Phototetrazoliny Radicals

Advisor: Andrzej Rajca

Gordon, Alex

Research Group: Nebraska Summer Research Program

Poster Location: 76

Poster Title: Characterization of Granular Particle Shape Effect in Rotary Vane Shear Testing

Advisor: Yumeng Zhao

Gulley, Madylin

Research Group: Nebraska Summer Research Program

Poster Location: 27

*Poster Title: Influence of Substrate Composition on Soybean Gall Midge (*Resseliella maxima* Gagné) Adult Emergence*

Advisor: Anthony Justin McMechan

Gutierrez, Amanda

Research Group: Nebraska Summer Research Program

Poster Location: 127

Poster Title: Characterization and Fabrication of Isotropic Liquid Metal Composites for Soft Robotics

Advisor: Eric Markvicka

Hanson, Victor

Research Group: Nebraska Summer Research Program

Poster Location: 113

Poster Title: Freestanding PbZr_{0.2}Ti_{0.8}O₃ Membrane Top-Gated MoS₂ Field Effect Transistor

Advisor: Xia Hong

Hernandez, Justin

Research Group: McNair Scholars Program

Poster Location: 34

Poster Title: Which Playground Features Do Children Use Most? Examining Children's Use of Natural and Manufactured Playground Features in Early Childhood Outdoor Environments

Advisor: Anne Schutte

Herrera, Oscar

Research Group: Nebraska Summer Research Program

Poster Location: 43

Poster Title: Evaluation of Nucleofection Solutions for Kasumi-3 Transfection Efficiency and Cell Viability

Advisor: Lindsey Crawford

Hixson, Morgan

Research Group: Nebraska Center for Energy Sciences Research

Poster Location: 130

Poster Title: Engineering Energy Metabolism in the Methanogenic Archaeon *Methanosarcina acetivorans*

Advisor: Nicole Buan

Horn, Nathan

Research Group: Nebraska Summer Research Program

Poster Location: 98

Poster Title: Optimizing DMS Chemical Mapping Conditions for RNA Structural Analysis

Advisor: Yesselman

Huynh, William

Research Group: Nebraska Summer Research Program

Poster Location: 55

Poster Title: Molecular Confirmation of Quality Protein Popcorn's Genetic Background

Advisor: David Holding

Inman, Ryan

Research Group: Nebraska Summer Research Program

Poster Location: 99

Poster Title: Design and Synthesis of Disulfide-Ligated Z-Domain Peptide Analogs for Protein Binding Applications

Advisor: James W. Checco

Isom, Evy

Research Group: UCARE

Poster Location: 7

Poster Title: Investigating Demographics and Dynamics of a Bullsnake (*Pituophis catenifer*) population after a rodent population surge.

Advisor: Dennis Ferraro

Jakes, Shayna

Research Group: Nebraska Summer Research Program

Poster Location: 56

Poster Title: Validation of Using Digital Near-Infrared Spectroscopy for Soybean Composition Analysis

Advisor: Catelyn Bridges

Jurik, Lena

Research Group: Nebraska Summer Research Program

Poster Location: 69

Poster Title: Height Stability of Wheat Lines in Response to Drought Conditions

Advisor: Katherine Frels

Kahler, Amy

Research Group: Nebraska Summer Research Program

Poster Location: 77

Poster Title: Effects of Nanomaterial Surface Functionalization on PFAS Removal in Single and Mixed Systems

Advisor: Nirupam Aich

Kim, Noah

Research Group: Nebraska Summer Research Program

Poster Location: 57

Poster Title: Functional Profiling of Gut Microbiomes from Individuals with Cystic Fibrosis in Response to Whole Foods: A Case-Control In Vitro Fermentation Study

Advisor: Edward C. Deehan

Knight, Maxwell

Research Group: Nebraska Summer Research Program

Poster Location: 87

Poster Title: Acoustic Optimization of a Wearable Ultrasound Patch for Cerebral Blood Flow Monitoring

Advisor: Eric Markvicka

Kuenzler, Jordan

Research Group: STEM-POWER

Poster Location: 12

Poster Title: Identification of Resident Gut Microbial Species that Promote *Faecalibacterium duncaniae* Growth

Advisor: Amanda Ramer-Tait

Kumm, Emily

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 118

Poster Title: The Effect of Supercritical CO on the Synthesis and Crystal Growth of Metal-Organic Frameworks

Advisor: Siamak Nejati

Kwasnick, Julia

Research Group: Nebraska Summer Research Program

Poster Location: 70

Poster Title: Assessing Soil Health: The Effects of Agricultural Management on Aggregate Stability

Advisor: Carolina Cordova

Lackey, Gabriel

Research Group: UCARE

Poster Location: 66

Poster Title: Engineering Ionomer Membranes using Natural Polymers for Sustainable Energy Conversion Systems

Advisor: Shudipto K. Dishari

Lee, Braden

Research Group: Nebraska Summer Research Program

Poster Location: 100

Poster Title: Development of an Improved Surface-Enhanced Raman Spectroscopy(SERS) Substrate to Robustly Detect Soil Nitrate

Advisor: Yinsheng Guo

Lerda, Santino

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 123

Poster Title: Enabling Distributed Computing Across Underutilized Lab Computers

Advisor: Kirill Belashchenko

Linden, Andy

Research Group: Nebraska Summer Research Program

Poster Location: 29

Poster Title: Screening Wild Aedes albopictus from Lincoln, Nebraska for West Nile Virus and Pyrethroid Resistance-Associated kdr Mutations

Advisor: Leslie Rault

Lionberger, Alexandria

Research Group: UCARE

Poster Location: 49

Poster Title: Healing Body and Soul; Religion and Reliquaries as Medical Science in Early Byzantine

Advisor: Carolyn Twomey

Loos, Jake

Research Group: Nebraska Summer Research Program

Poster Location: 128

Poster Title: Development of 3D Printed Stamps for Extracellular Nitric Oxide Gradient Quantification via Single Walled Carbon Nanotubes

Advisor: Nicole Iverson

Lu, Jessica

Research Group: UCARE

Poster Location: 40

Poster Title: Neighborhood Disparities in Machine Learning: The Role of Synthetic Census Data

Advisor: Seth Polsley

Luna Lopez, Rhaisabel

Research Group: Nebraska Summer Research Program

Poster Location: 106

Poster Title: An Inositol-associated Gene Cluster Contributes to the Antimicrobial Activity of *Pseudomonas protegens* PBL3 Against *Burkholderia glumae*

Advisor: Clemencia Rojas

Maddox, Isabella

Research Group: McNair Scholars Program

Poster Location: 25

Poster Title: Characterizing Soybean Stem Fungal Communities and Their Antagonistic Potential Against Key Pathogens

Advisor: Dylan Mangel

Manian, Sagarika

Research Group: Nebraska Summer Research Program

Poster Location: 88

Poster Title: Design of a Silicone Overmold for a Continuous Blood Flow Wearable Ultrasound Patch

Advisor: Eric Markvicka

Mann, Solomon

Research Group: Nebraska Summer Research Program

Poster Location: 71

Poster Title: Evaluating an Ultra High Precision Spray System for Targeted Weed Control and Herbicide Savings in Soybean

Advisor: Amit Jhala

Marietta, Bryn

Research Group: Nebraska Summer Research Program

Poster Location: 30

Poster Title: Oral Delivery of Molecular Tags in Insect Pests of Public Health and Animal Health Importance.

Advisor: Lise Pingault

Martinez Baron, Julian Alejandro

Research Group: Nebraska Summer Research Program

Poster Location: 112

Poster Title: Kinematic Study for Effective Field Theory Analysis of Top Quark Events

Advisor: Ken Bloom

Mawut, Amuor

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 124

Poster Title: Engineering Seniors' Perceptions of What School Taught Them Vs. What Industry Prioritizes in New Hires

Advisor: Jessica Deters

McIntyre, Grace

Research Group: Nebraska Summer Research Program

Poster Location: 107

Poster Title: Defining the Mechanism of Action of Pyoverdine Related Molecules in the Pseudomonas protegens PBL3 Secretome Against Burkholderia glumae

Advisor: Clemencia M. Rojas

Messineo, Sophia

Research Group: Nebraska Summer Research Program

Poster Location: 92

Poster Title: Growth vs Fixed: A Look into the Mindset of Undergraduate Engineering Students from Rural Communities

Advisor: Jessica Deters

Minoungou, Stives JB Wendyam

Research Group: Sukumaran Lab

Poster Location: 2

Poster Title: Role of zinc transporters in taste cell regeneration

Advisor: Sunil Sukumaran

Mohanty, Samarpan

Research Group: Nebraska Center for Energy Sciences Research

Poster Location: 132

Poster Title: Molytics: Entropy-Guided AutoML with Deep Clustering for Materials Science

Advisor: Mona Bavarian

Moises, Jordan Ralph

Research Group: Nebraska Summer Research Program

Poster Location: 72

Poster Title: Machine Learning in Agronomy: Strategic Regression Models for Crop Yield Forecasting and Nitrogen Management.

Advisor: Guillermo Balboa

Montepeque, Lily

Research Group: STEM-POWER

Poster Location: 13

Poster Title: Exploring Giant gene role within *Diabrotica virgifera virgifera* LeConte embryological development

Advisor: Ana Velez Arango and Marija Milosevic

Moore, Macey

Research Group: UCARE

Poster Location: 143

Poster Title: Determining the Vitamin Supplementation Requirements of the Methanogenic Archaeon *Methanosarcina acetivorans*

Advisor: Nicole Buan

Morrow, Gabriel

Research Group: Nebraska Summer Research Program

Poster Location: 101

Poster Title: Computational and photophysical investigation of fluorogenic Pepper RNA aptamers

Advisor: Catherine Eichhorn

Murphy, Sophia

Research Group: UCARE

Poster Location: 48

Poster Title: Association Between Parents' Responses During Off-Task Social Exchanges and Children's Math Anxiety

Advisor: Jenna Finch

Natho, Kaylee

Research Group: UCARE

Poster Location: 3

Poster Title: Palmitoleate Protects Against Zika Virus Infection in Human Placental Explants

Advisor: Sathish Kumar Natarajan

Neblett, Nathan

Research Group: Nebraska Summer Research Program

Poster Location: 78

Poster Title: Examination of Deck Cracking Susceptibility and Ultimate Load Capacity of a Simple for Dead Load - Continuous for Live Load Steel Bridge Connection using Ultra-High Performance Concrete

Advisor: Joshua Steelman

Nguyen, Angella

Research Group: UCARE

Poster Location: 51

Poster Title: Technoference and Technology-Use During Parent-Child Interactions

Advisor: Patty Kuo

Nielson, Grant

Research Group: McNair Scholars Program

Poster Location: 24

Poster Title: Investigating the Subcellular Localization of Puccinia sorghi effector proteins.

Advisor: Saet-byul Kim

Nutzman, Jeffrey

Research Group: UCARE

Poster Location: 9

Poster Title: Developing and Comparing Venom Extraction Protocols in Native Nebraska Spiders.

Advisor: Eileen Hebets

Olafuyi, Temitope

Research Group: Nebraska Summer Research Program

Poster Location: 58

Poster Title: Pigment to nourishment: Bioproduction of Astaxanthin and Its Application in Food

Advisor: Edgar Cahoon

Palmer, Luke

Research Group: Nebraska Summer Research Program

Poster Location: 35

Poster Title: Species Composition of Late-Season Polistes Aggregations as a Foundation for Semiochemical-Based Management

Advisor: Georgina Bingham

Paschke, Lillian

Research Group: Nebraska Summer Research Program

Poster Location: 79

Poster Title: Surface Modification of Graphene-Iron Nanohybrids for Enhanced PFAS Removal from Water

Advisor: Nirupam Aich

Phillips, Mack

Research Group: Nebraska Summer Research Program

Poster Location: 36

Poster Title: Can Wheat Streak Mosaic Virus and Triticum Mosaic Virus Infect Grassy Weed Species?

Advisor: Shaonpius Mondal

Pirali, Aram

Research Group: Nebraska Center for Energy Sciences Research

Poster Location: 131

Poster Title: Ferroelectric Field Effect induced Metal-Insulator transition in ReS₂ via Epitaxial P(VDF-TrFE) Nanowires

Advisor: Xia Hong

Plis, Elizaveta

Research Group: Nebraska Summer Research Program

Poster Location: 28

Poster Title: Evaluating Imidacloprid Efficacy and Its Impact on Parasitoids of the Soybean Gall Midge

Advisor: Anthony Justin McMechan

Popa, Markus

Research Group: UCARE

Poster Location: 83

Poster Title: Tunable Friction through Electroosmotic Actuation
for a Bioinspired Robot

Advisor: Eric Markvicka

Proctor, Hannah

Research Group: Nebraska Summer Research Program

Poster Location: 65

Poster Title: Exophiala viscosa's Preferred Nutrients Correspond to Symbiotic
Microorganism Metabolites, Inducing Cell Growth and Melanin Secretion

Advisor: Rajib Saha

Raghuvanshi, Shrimai

Research Group: UCARE

Poster Location: 115

Poster Title: Investigating Evolutionary Conservation of 7SK Stem-Loop 3 RNA Structural
Dynamics

Advisor: Catherine D. Eichhorn

Raynes, Ava

Research Group: Nebraska Summer Research Program

Poster Location: 37

Poster Title: Discovering Dipteran Diversity: Fly Feeding Guilds on Milkweed Flowers

Advisor: Tom Weissling

Richler, Olivia

Research Group: Nebraska Center for Energy Sciences Research

Poster Location: 144

Poster Title: Angular and Spacial Dependence of Impedance of Hydrogenated Boron
Carbide Films

Advisor: Robert Streubel

Rico-Gomez, Violeta

Research Group: Nebraska Summer Research Program

Poster Location: 46

Poster Title: Identification of lateral transfer of carotenoid genes in soybean gall midge
(Resseliella maxima Gagné)

Advisor: Ana Maria Velez Arango

Rivadeneira-Vivar, Joshua

Research Group: Nebraska Summer Research Program

Poster Location: 89

Poster Title: Deliberate Under-Fitting of Vision Transformers for Cross-Modal Recognition

Advisor: Benjamin Riggan

Rivera Romero, Jorge

Research Group: Nebraska Center for Energy Sciences Research

Poster Location: 145

Poster Title: Template Guided Growth of Lead Halide Perovskites for Scalable Neuromorphic Computing

Advisor: Laura Wang

Rogers, Alexandra

Research Group: STEM-POWER

Poster Location: 14

Poster Title: Carotenoids gene transfer in Soybean Gall midge (*Resseliella maxima*)

Advisor: Ana Maria Velez Arango

Ropa, Lorena

Research Group: Nebraska Summer Research Program

Poster Location: 59

Poster Title: The Influence of Chive Extracellular Vesicles on the Growth of Gut Microbes

Advisor: Jennifer Auchtung

Rousseau, Desiree

Research Group: UCARE

Poster Location: 15

Poster Title: Spatial population dynamics of stored-product beetles around grain elevators in Nebraska: Comparing baited and unbaited trap species assemblies

Advisor: Georgina Bingham

Sathish, Shriish

Research Group: Sukumaran Lab

Poster Location: 1

Poster Title: Role of zinc transporters in taste signaling

Advisor: Sunil Sukumaran

Sayre, Calvin

Research Group: Nebraska Center for Energy Sciences Research

Poster Location: 146

Poster Title: Nanoscale Studies of Ferroic Materials for Energy Storage Applications

Advisor: Alexei Gruverman

Schubert, Henrike

Research Group: UCARE

Poster Location: 117

Poster Title: UV Printing of Multi-Hydrogel Arrays

Advisor: Stephen Morin

Schuerman, Eli

Research Group: UCARE

Poster Location: 16

Poster Title: Effects of Thermal Stress on the Fitness of Pyrethroid-Resistant and Susceptible *Aedes aegypti*

Advisor: Leslie Rault

Schutte, Savannah

Research Group: McNair Scholars Program

Poster Location: 22

Poster Title: Exploring the Fractal Patterns in Pascal's Triangle and the Trinomial Triangle modulo n

Advisor: Mark Walker

Shulyak, Mary

Research Group: Nebraska Summer Research Program

Poster Location: 44

Poster Title: Rapid Whole-Genome Sequencing and Genomic Characterization of H5N1 Influenza Viruses Using Nanopore Technology

Advisor: Eric Weaver

Sinitsky, Victoria

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 137

Poster Title: Broadband Dielectric Spectroscopy in Nitrous Oxide and Argon/Oxygen Plasma

Advisor: Li Tan

Slosser, Eleanor

Research Group: Nebraska Summer Research Program

Poster Location: 19

Poster Title: Role of Bmr2 Gene in Sorghum Resistance to Sugarcane Aphids

Advisor: Joe Louis

Snodgrass, Owen

Research Group: UCARE

Poster Location: 109

Poster Title: Polarimetric Radar Characterization of Cold Pool Raindrop Distributions and Their Role in QLCS Tornado Dynamics

Advisor: Matthew Van Den Broeke

Sorto, Xavier

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 136

Poster Title: Influence of Deposition Angles In Magnetic Iron Germanium Films

Advisor: Robert Streubel

Spiehs, Hannah

Research Group: UCARE

Poster Location: 52

Poster Title: Evaluating Drivers of Grassland Heterogeneity Across a Temporal Gradient of Bison Reintroduction

Advisor: Nic McMillan

Staines, Phoenix

Research Group: Nebraska Summer Research Program

Poster Location: 80

Poster Title: Advancing Environmental Surveillance of Pathogens in Surface Water for Early Detection of Biological Threats

Advisor: Xu Li

Steckel, Gina

Research Group: Nebraska Summer Research Program

Poster Location: 102

Poster Title: Kinetic Analysis of Intramolecular Cyclization in Aryl Diazonium-Containing Peptides with Tyrosine and Histidine Residues
Advisor: James W. Checco

Stewart, Anna

Research Group: UCARE
Poster Location: 47
Poster Title: Nicotine Enhancement of Sucrose-, Stevia-, and Sucralose- Sweetened Alcohol Reinforcement
Advisor: Scott Barrett

Stokes, Hadley

Research Group: UCARE
Poster Location: 6
Poster Title: Are they structured? Genomic connectivity of Trumpeter Swans across the Sandhills of Nebraska
Advisor: Robert Wilson

Stratman, Ryan

Research Group: Nebraska Summer Research Program
Poster Location: 60
Poster Title: Effects of Sodium Chloride Addition on the Texture and Protein Digestibility of Cooked Sorghum bicolor
Advisor: Devin Rose, Edward Deehan

Vandenberg, Tucker

Research Group: Nebraska Water Center Undergraduate Student Research Fellowship
Poster Location: 108
Poster Title: A Comprehensive Assessment of Precipitation Variability in Nebraska Using High-Resolution Climate Projection
Advisor: Liang Chen

Velazquez, Amanda

Research Group: Nebraska Summer Research Program
Poster Location: 81
Poster Title: From Wildfire Impacts to Engineering Solutions: Alternative Windbreaks for Rural Nebraska
Advisor: Christine Wittich

Veras, Angel

Research Group: Nebraska Summer Research Program

Poster Location: 82

Poster Title: Understanding Driver and Passenger Experiences in Automated Shuttle Operations

Advisor: Li Zhao

Vesely, Soren

Research Group: Nebraska Summer Research Program

Poster Location: 93

Poster Title: Enhancing the Engineering Experience: Understanding the Stress of Women in Undergraduate Engineering Programs

Advisor: Jessica Deters

Vlcek, Oscar

Research Group: Nebraska Summer Research Program

Poster Location: 103

Poster Title: Lysobacter Co-Cultures as a Potential Next Step in Biologically Derived Pesticides

Advisor: Liangcheng Du

Walkenhorst, Chloe

Research Group: UCARE

Poster Location: 110

Poster Title: Determining Warning Implications for Right Moving Members of Splitting Supercells

Advisor: Matthew Van Den Broeke

Walter, Joey

Research Group: Nebraska Summer Research Program

Poster Location: 61

Poster Title: From Seed to Sustainability: Agrobacterium Transformation of Camelina sativa to Produce Newly Identified Oil

Advisor: Tara Nazarens, Kiyoul Park

Walters, Lorelei

Research Group: Nebraska Summer Research Program

Poster Location: 90

Poster Title: Optimization of Nitric Oxide Induction and Treatment for Quantification with Single Walled Carbon Nanotube Sensors

Advisor: Nicole Iverson

Wang, Luca

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 119

Poster Title: Transforming Flood and Climate Research into Public Education Materials for Nebraska Communities

Advisor: Jahangeer Jahangeer

Wang, Weili

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 133

Poster Title: Interface-Tuning of Domain Structures in Nanoscale CuInP(2)S(6) via Ferroelectric Oxide

Advisor: Xia Hong

Wang, Christopher

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns

Poster Location: 134

Poster Title: Genetic Dissection of Sorghum Leaf Greenness Through Digital Phenotyping and Genome Wide Association Analysis

Advisor: James Schnable

Washburn, Sam

Research Group: UCARE

Poster Location: 50

Poster Title: Americanization, For What?: Hisanori H. Kano's Leadership Among Japanese Nebraskans in the 1920s-1940s

Advisor: Donna Doan Anderson

Weibye, Claire

Research Group: Nebraska Summer Research Program

Poster Location: 91

Poster Title: Therapeutic Potential of Parabuthus villosus Venom-Derived Extracellular Vesicles in Triple Negative Breast Cancer
Advisor: Angela K. Pannier

Whitlow, Naomi

Research Group: Nebraska Summer Research Program
Poster Location: 62
Poster Title: Generating Deletions in Arabidopsis using the Cas3 Plant Genome-editing System
Advisor: Nathaniel Butler

Winn, Lauren

Research Group: McNair Scholars Program
Poster Location: 32
Poster Title: Identifying Biconditional Occasion Setting Drug Discrimination through Nicotine and Amphetamine Studies
Advisor: Kaitlyn Steck and Scott Barrett

Wolfe, Alexander

Research Group: Nebraska Summer Research Program
Poster Location: 45
Poster Title: Palmitoleate protects against ZIKV infection-induced apoptosis: Role of host-virus lipid metabolism
Advisor: Sathish Kumar Natarajan

Wong, Emmalee

Research Group: UCARE
Poster Location: 17
Poster Title: Effects of Black Soldier Fly Larvae on Microbial Load in Organic Waste
Advisor: Georgina Bingham

Zhang, Edward

Research Group: Nebraska Center for Materials and Nanoscience and Young Nebraska Scientists High School Interns
Poster Location: 135
Poster Title: Predicting Where Youth Hockey Players Can Play in College Using Machine Learning
Advisor: Mohammad Rashedul Hasan

