



# August 5<sup>th</sup>, 2025: Directory of Student Presenters

## Posters 1-93 in Centennial Room

## Posters 94-131 in Ballroom

### Applied Plant Systems

Dickson, Kayla	19
Long, Mackenzie	20
Miller, Annalise	21

### Applied Unmanned Systems

McIntire, Ansonia	64
Stonestreet, Liam	65

### Beneficial Bacteria REU

Behrends, Sonya	25
Chen, Melody	22
Cordero Morales, Ailanys	24
Shreve, Logan	23

### Chemistry REU

Bradford, Samuel	33
Giese, Sarah	34
Graham, Lillian	35
King, Noah	36
Munro, Jessica	37
Murray, Owen	38
Oluseyi-Oke, Naomi	39
Ryan, Maura	45
Teggatz, Anna	46
Wotler, Rylee	47

### Crop-to-Food REEU

Brown, Katharine	60
Buchanan, Laura	62
Colvin, Charles	63
Ge, Angelina	59
Harris-Smith, Laila	61
Ibarra, Concepcion	69
Igwilo, Favor	70
Nance, Corwin	71
Rose, Abigail	72
Ruberte, Adriana S	73

### Department of Food Science and Technology

Jackson, Emily May	54
--------------------	----

### Engineering Education REU

Dudley, Elizabeth	94
Esquivias, Anthony	95
Garcia, Isabel	96
Ocanas, Dbanhy	97
Petersen, Mollie	102
Renner, Lane	99
Sansone, Brooke	100
Tort Casiano, Kiara	101
Vega, Genevieve	98

### James Schnable Lab

Quach, Ha	55
-----------	----

### McNair Scholars Program

Al-Jayashi, Zainib	12
Basi, Maathir	13
Diaz, Sarah	14
Guerra, Ella	15
Macias-Villegas, Gabriel	16
Santos, Carlo	17
Tapia, Alex	18

### Nebraska Center for Energy Sciences Research

Andersen, Noah	123
Gonzalez, Octavious	124
Hemphill, Thomas	125
Moore, Macey	126
Prakapchuk, Vladislav	127
Purbey, Yashraj	128
Rogers, Seth	129
Swoboda, Cooper	130
Thompson, Braedyn	131

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

Albright, Kayla	106
Alsalem, Hamzah	107
Gonzalez, Naira	108
Hunt, Alden	109
Killeen, Patrick	110
Melton, Liam	111
Nguyen, Khang	113
Nguyen, Steven	112
Reeb, Joelle	114
Sajeesh, Samarth	115
Shen, Jeff	118
Sorto, Xavier	119
Wang, Albert	121
Wang, WeiLi	120
Wegener, Verity	122

### North Central Region Watershed Network: Next Generation of Extension

Cartwright, Aliviah	93
Walker, Olivia	93

### Plant-Insect Interaction REU

Pouliot, Corrine	30
Waite, Maria	31

### Quantum Materials REU

Abruscato, Christopher	105
Anderson, Tremaine	103
Lawson, Jenna	104

### Science Bound

Bryant, Hannah	91
----------------	----

### STEM-POWER

Al-Ramahy, Ruqiah	92
Nguyen, Trish	42

### Sustainability of Civil Structures REU

Arena, Jack	74
Farlow, Natalie	75
Ferrer, Damaris	76
Koester, Jamie	77
Moon, Eric J.	78
Palacio, Chabelly	84
Salami, Semih	85
Soto, Savannah	86
Spaho, Anisa	87
Tchamdja, Aureliane	88

### Systems & Synthetic Biology (SSBio) Lab

Barton, Quin	90
--------------	----

### UCARE

Akash, Sajid Raihan	116
Alhejaj, Zackarea	32
Andersen, Elizabeth	56
Anderson, Hailey	117
Babica, Tyler	9
Barrera-Bojanski, Danielle	79
Bhojwani, Samay	66
Bohls, Serenity	2
Boyer, Kaden	67
Cox, Adrian	10
Dendinger, Marisa	26
Engel, Riah	3
Eurek, Bell	80
Farnam, Lily	6
Larson, Sarah	52
Lueders, Ted	57

### UCARE (Cont.)

Mahmood, Onjoy	81
Mohanty, Samarpan	44
Nguyen, Hanny	41
Nguyen, Kathleen	58
Nguyen, Ryan	82
Parent, Symone	4
Puoch, Lim	5
Pushkaran, Devadarshan	68
Raghuvanshi, Shrimai	43
Reiser, Kaleb	83
Stone, Edward	89
Treijis, Eva	28
Udby, Andreas (Mick)	11
Van Haren, Christina	53
Wenninghoff, Sydnee	7
Wickham, Sidney	1
Wilhelm, Michael	29
Zhang, Zora	8

### University of Utah Summer Program for Undergraduate Research: American Heart Association

McManus, Emma	40
---------------	----

### UNL Department of Biochemistry

Texel, Ashley	27
---------------	----

### Virology USREV

Alemam, Basmala	48
Gordon, Audrey	49
Sicks, Allyssa	50
Wyllie, Andrew	51

## Poster Details – Alphabetical by Last Name

### **Abruscato, Christopher**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 105

*Poster Title:* The Exploration of Ferroelectricity in Hafnia Thin Films

*Advisor:* Xiaoshan Xu

### **Akash, Sajid Raihan**

*Research Group:* UCARE

*Poster Location:* 116

*Poster Title:* Calibration Driven Enhancements in Neutrino Signal Reconstruction for the Radio Neutrino Observatory in Greenland.

*Advisor:* Ilya Kravchenko

### **Albright, Kayla**

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

*Poster Location:* 106

*Poster Title:* Developing Surface-Enhanced Raman Spectroscopy Toward Field Deployable Soil Nutrient Sensing Technology

*Advisor:* Yinsheng Guo

### **Alemam, Basmala**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 48

*Poster Title:* Examining the Effects of Antibiotics on Porcine Microbial Communities

*Advisor:* Samodha Fernando

### **Alhejaj, Zackarea**

*Research Group:* UCARE

*Poster Location:* 32

*Poster Title:* Identification of Small RNA Pseudoknots with DMS Mapping

*Advisor:* Joseph Yesselman

### **Al-Jayashi, Zainib**

*Research Group:* McNair Scholars Program

*Poster Location:* 12

*Poster Title:* Help-Seeking Preferences Among Latine Immigrants: Impact of Immigration-Related Stressors on Seeking Formal vs. Informal Care

*Advisor:* Arthur "Trey" Andrews III

### **Al-Ramahy, Ruqiah**

*Research Group:* STEM-POWER

*Poster Location:* 92

*Poster Title:* Differential Lipid Profiles of the bacteria *Rhodopseudomonas palustris* with PFAS exposure (Erin)

*Advisor:* Rajib Saha

**Alsaleem, Hamzah**

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

*Poster Location:* 107

*Poster Title:* Electronic Nose Detection of Disease-Related Skin Gases

*Advisor:* Eric Markvicka

**Andersen, Elizabeth**

*Research Group:* UCARE

*Poster Location:* 56

*Poster Title:* Novel Documentation of Amoebidium parasite transmission between Daphnia magna hosts

*Advisor:* Clay Cressler

**Andersen, Noah**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 123

*Poster Title:* Heat Exchanger for Molten Salt Small Modular Reactor

*Advisor:* Bai Cui

**Anderson, Hailey**

*Research Group:* UCARE

*Poster Location:* 117

*Poster Title:* Exploring the Ferroelectricity in 2D Ferroelectric CuInP2S6 and its Modulation on the Channel Conductance of MoS2 Field-Effect Transistor

*Advisor:* Xia Hong

**Anderson, Tremaine**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 103

*Poster Title:* Imaging the Magnetic Field of Ferritin

*Advisor:* Abdelghani Laraoui

**Arena, Jack**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 74

*Poster Title:* SEM-EDX for Simultaneous Identification and Quantification of Nano- and Microplastics

*Advisor:* Yusong Li

**Babica, Tyler**

*Research Group:* UCARE

*Poster Location:* 9

*Poster Title:* How Does Cattle Grazing of Corn Residues Affect Soil Health in the Long Term?

*Advisor:* Humberto Blanco

**Barrera-Bojanski, Danielle**

*Research Group:* UCARE

*Poster Location:* 79

*Poster Title:* The Occurrence of Microplastics in Sediment of an Agricultural Watershed

*Advisor:* Shannon Bartelt-Hunt

**Barton, Quin**

*Research Group:* Systems & Synthetic Biology (SSBio) Lab

*Poster Location:* 90

*Poster Title:* Exposure to Dryland Cyanobacteria and Their Metabolites Induces Melanin Secretion by Fungi

*Advisor:* Rajib Saha

**Basi, Maathir**

*Research Group:* McNair Scholars Program

*Poster Location:* 13

*Poster Title:* Effects of Probable Brain Injury on Depression and Coping in People Who Inject Drugs

*Advisor:* Kathy Chiou

**Behrends, Sonya**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 25

*Poster Title:* Uncovering antimicrobial compounds in *Pseudomonas* sp through comparative metabolomics

*Advisor:* Clemencia Rojas

**Bhojwani, Samay**

*Research Group:* UCARE

*Poster Location:* 66

*Poster Title:* Generating Dyslexia-Friendly Summaries Using Machine Learning-LexiSmart

*Advisor:* Lisong Xu

**Bohls, Serenity**

*Research Group:* UCARE

*Poster Location:* 2

*Poster Title:* Criminal Liability in Third Party Cases that Surround Juveniles and AI

*Advisor:* Eve Brank

**Boyer, Kaden**

*Research Group:* UCARE

*Poster Location:* 67

*Poster Title:* A Task-Based Assessment of the Feasibility of Webcams as Eye Trackers

*Advisor:* Bonita Sharif

**Bradford, Samuel**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 33

*Poster Title:* Reagent Synthesis and Cross-Coupling for Sulfur-Fluorine Compound Production

*Advisor:* Tim Gatzemeier

**Brown, Katharine**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 60

*Poster Title:* Screening of Hard Winter Wheat Germplasm for High Fiber Content

*Advisor:* Katherine Frels

**Bryant, Hannah**

*Research Group:* Science Bound

*Poster Location:* 91

*Poster Title:* Mapping Genetic and Metabolic Redundancy: Insights into Plant Lipid Biosynthesis via Integrative Modeling and Experimentation

*Advisor:* Rajib Saha

**Buchanan, Laura**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 62

*Poster Title:* Exploring a Nebraskan Cohort Interested in Volunteering for Food for Health Research

*Advisor:* Edward C. Deehan

**Cartwright, Aliviah**

*Research Group:* North Central Region Watershed Network: Next Generation of Extension

*Poster Location:* 93

*Poster Title:* Backyard composting: how different methods, mixes, and additives change the efficacy of using composting to manage chicken mortalities for backyard poultry farmers

*Advisor:* Amy Schmidt

**Chen, Melody**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 22

*Poster Title:* Using CRISPR-Cas3 to Dissect Antimicrobial Activity of *Pseudomonas protegens* PBL3

*Advisor:* Clemencia M. Rojas

**Colvin, Charles**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 63

*Poster Title:* Mining the Mycobiome: Uncovering Host Regulation of Leaf-Associated Fungi in Maize and Sorghum

*Advisor:* James C. Schnable

**Cordero Morales, Ailanys**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 24

*Poster Title:* Evaluating the antimicrobial activity of *Pseudomonas protegens* PBL3 mutants against *Bulkolderia glumae*.

*Advisor:* Clemencias M. Rojas

**Cox, Adrian**

*Research Group:* UCARE

*Poster Location:* 10

*Poster Title:* Exploring the Motivations and Needs of Urban Growers

*Advisor:* S. Carolina Cordova

**Dendinger, Marisa**

*Research Group:* UCARE

*Poster Location:* 26

*Poster Title:* Impacts of Mutations in tetX8 Gene on Tetracycline Destructase Activity

*Advisor:* Karin van Dijk

**Diaz, Sarah**

*Research Group:* McNair Scholars Program

*Poster Location:* 14

*Poster Title:* Yes, But Not Really. The Relationship Between Consensual Unwanted Sexual Experiences and Body Image in Queer Women.

*Advisor:* Kathryn Holland

**Dickson, Kayla**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 19

*Poster Title:* The Stalker: An Alternative Approach for Assessing Stem Solidness in Wheat

*Advisor:* Katherine Frels

**Dudley, Elizabeth**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 94

*Poster Title:* Overcoming the Limitations of Curriculum Complexity Diagrams: Developing a Rubric to Capture Academic and Personal Factors

*Advisor:* Jessica Deters

**Engel, Riah**

*Research Group:* UCARE

*Poster Location:* 3

*Poster Title:* When Violence Plays Favorites: Representations of Ideal Victims in Violent Films

*Advisor:* Colleen Kadleck

**Esquivias, Anthony**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 95

*Poster Title:* Evaluating uses of Neural Imaging (fNIRS): One Potential Application in Engineering Education Research

*Advisor:* Grace Panther

**Eurek, Bell**

*Research Group:* UCARE

*Poster Location:* 80

*Poster Title:* Exploring the Feasibility of Waste Plastic Incorporation in Concrete for Use in Sustainable Pavements in Nebraska

*Advisor:* Jamilla Teixeira

**Farlow, Natalie**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 75

*Poster Title:* Evaluating Terrain Influence on Tornado Severity

*Advisor:* Richard Wood

**Farnam, Lily**

*Research Group:* UCARE

*Poster Location:* 6

*Poster Title:* From Nebraska to Japan: Lessons From a Culture Abroad Experience

*Advisor:* Edmund Hamann

**Ferrer, Damaris**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 76

*Poster Title:* Agricultural Community Resilience: Vulnerability of Center Pivot Irrigators to Hurricane Winds

*Advisor:* Christine E. Wittich

**Garcia, Isabel**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 96

*Poster Title:* 'Engineering is Hard': Identifying Sources of Difficulty Faced by Undergraduate Engineering Students

*Advisor:* Jessica Deters

**Ge, Angelina**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 59

*Poster Title:* The Effects of Condensed Tannins and *F. duncaniae* on Tight Junction and Cytokine Gene Expression in a Mouse Colitis Model

*Advisor:* Amanda Ramer-Tait

**Giese, Sarah**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 34

*Poster Title:* Understanding Ribosome Heterogeneity using Top-Down Proteomics

*Advisor:* Jared Shaw

**Gonzalez, Naira**

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

*Poster Location:* 108

*Poster Title:* Manufacture of Apple Ginger Jam

*Advisor:* Steven Wignall

**Gonzalez, Octavious**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 124

*Poster Title:* Continuous Flow Polymerization: Energy Usage and Characterization of Functional Copolymers

*Advisor:* Mona Bavarian

**Gordon, Audrey**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 49

*Poster Title:* Analysis of Benzothiophene-Derived Inhibitors of Zika Virus RNA Polymerase

*Advisor:* Shi-Hu Xiang

**Graham, Lillian**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 35

*Poster Title:* Characterization of Affinity Chromatographic Supports with Entrapped Polystyrene Nanoplastics for Pharmaceutical Microcontaminant Interactions

*Advisor:* David Hage

**Guerra, Ella**

*Research Group:* McNair Scholars Program

*Poster Location:* 15

*Poster Title:* Empowering Youth Workers: A Systematic Review of the Key Elements in Successful Training Frameworks Designed to Identify and Respond to Adolescent Mental Health Struggles

*Advisor:* Cody Hollist

**Harris-Smith, Laila**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 61

*Poster Title:* Development of a Cas3 System for Plant Genome Editing

*Advisor:* Ming Guo

**Hemphill, Thomas**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 125

*Poster Title:* Developing a Plasmid Library for Expressing Novel Gene Variants in Methanogenic Archaea

*Advisor:* Nicole Buan

**Hunt, Alden**

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

*Poster Location:* 109

*Poster Title:* Design of an Improved Self-Driving Robot

*Advisor:* Santosh Pitla

**Ibarra, Concepcion**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 69

*Poster Title:* From DNA to Pigment: Biodesign of Yeast for Carotenoid Production

*Advisor:* Edgar Cahoon



**Igwilo, Favor**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 70

*Poster Title:* Structural Variations in Maize Arabinoxylans Influence Gut Microbiota Colonies, Highlighting Effects on Bifidobacteria

*Advisor:* Andrew Benson

**Jackson, Emily May**

*Research Group:* Department of Food Science and Technology

*Poster Location:* 54

*Poster Title:* Relationship Between Surrogate Outcomes and Bioelectrical Impedance Analysis Estimated Body Composition in a Healthy Nebraskan Cohort

*Advisor:* Edward C. Deehan

**Killeen, Patrick**

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

*Poster Location:* 110

*Poster Title:* Two Photon Polymerization: Three-Dimensional Printing at the Micro/Nano Scale

*Advisor:* Xi Huang, Yongfeng Lu

**King, Noah**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 36

*Poster Title:* Transfer Printing of Responsive Micro-Hydrogel Arrays onto a Soft Surface

*Advisor:* Stephen Morin

**Koester, Jamie**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 77

*Poster Title:* Effects of Salt and Material Functionalization on PFAS Remediation Using Boron Nitride Nanosheets

*Advisor:* Nirupam Aich

**Larson, Sarah**

*Research Group:* UCARE

*Poster Location:* 52

*Poster Title:* From polygenic sex chromosomes to brain and gonad gene expression: combining genotypic sex, primary sex characteristics, and behavior

*Advisor:* Emily Moore

**Lawson, Jenna**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 104

*Poster Title:* Investigating Ferroelectricity in AgInP2S6 and Its Gating Effect on MoS2 Field Effect Transistors

*Advisor:* Xia Hong

**Long, Mackenzie**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 20

*Poster Title:* Capsaicinoid Production in Capsicum annum with Injury and Cover Cropping

*Advisor:* Christian Stephenson

**Lueders, Ted**

*Research Group:* UCARE

*Poster Location:* 57

*Poster Title:* Utilization of selective screening to isolate Faecalibacterium duncaniae from a human fecal microbiome

*Advisor:* Amanda Ramer-Tait

**Macias-Villegas, Gabriel**

*Research Group:* McNair Scholars Program

*Poster Location:* 16

*Poster Title:* Accessible and Accurate Q-Meter to Evaluate High Frequency Magnetics for the Next Generation of Power Converters

*Advisor:* Jun Wang

**Mahmood, Onjoy**

*Research Group:* UCARE

*Poster Location:* 81

*Poster Title:* A Systematic Literature Review on Solutions for Shrinking Water Systems

*Advisor:* Kaycie Lane

**McIntire, Ansonia**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 64

*Poster Title:* Assessing Correlating User Preference in Drone Interactions

*Advisor:* Brittany Duncan

**McManus, Emma**

*Research Group:* University of Utah Summer Program for Undergraduate Research:  
American Heart Association

*Poster Location:* 40

*Poster Title:* Role of the soluble (pro)renin receptor in aristolochic acid induced model of chronic kidney disease

*Advisor:* Nirupama Ramkumar

**Melton, Liam**

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

*Poster Location:* 111

*Poster Title:* Kirigami-Based Structures for Blood Flow Monitoring

*Advisor:* Eric Markvicka

**Miller, Annalise**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 21

*Poster Title:* Vegetation and grassland bird communities in small-scale grazing systems

*Advisor:* Daniel Uden

**Mohanty, Samarpan**

*Research Group:* UCARE

*Poster Location:* 44

*Poster Title:* Molytics - A Modular AutoML Framework for Predicting Any Chemical Property

*Advisor:* Mona Bavarian

**Moon, Eric J.**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 78

*Poster Title:* Enhancing Work Zone Safety with Roadside Camera-Based Tracking and Truck-Aware Traffic Simulation

*Advisor:* Nathan Huynh, Li Zhao

**Moore, Macey**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 126

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

*Advisor:* Nicole Buan

**Munro, Jessica**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 37

*Poster Title:* Sequence-Dependent Kinetics of the Methyltransferase Ribozyme MTR1

*Advisor:* Catherine D. Eichhorn

**Murray, Owen**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 38

*Poster Title:* Developing a Synthetic Pathway for a New Organic Tetrazolynyl Diradical

*Advisor:* Andrzej Rajca

**Nance, Corwin**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 71

*Poster Title:* The Effect of High Pressure Processing on Proteolytic Activity and Peptide Formation

*Advisor:* Mary-Grace Danao

**Nguyen, Hanny**

*Research Group:* UCARE

*Poster Location:* 41

*Poster Title:* The Optimization of Polypropylene Nanoparticle Synthesis

*Advisor:* Bai Cui

**Nguyen, Kathleen**

*Research Group:* UCARE

*Poster Location:* 58

*Poster Title:* Protective Effects of -Glutamyl Peptides on Atherosclerosis and the Gut Microbiota Under High-Fat Dietary Conditions

*Advisor:* Barry Cheung

**Nguyen, Khang**

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

*Poster Location:* 113

*Poster Title:* IV Characterization and Temperature Dependence Resistance Behavior of NiCo<sub>2</sub>O<sub>4</sub> Thin Film

*Advisor:* Xiaoshan Xu

**Nguyen, Ryan**

*Research Group:* UCARE

*Poster Location:* 82

*Poster Title:* Light Through Ceramics: Optimizing Viritolite-Based 3D Printing

*Advisor:* Vitaly Alexandrov

**Nguyen, Steven**

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

*Poster Location:* 112

*Poster Title:* Investigating Doping on Oxygen Evolution Electrocatalysis

*Advisor:* Shudipto Dishari

**Nguyen, Trish**

*Research Group:* STEM-POWER

*Poster Location:* 42

*Poster Title:* Lignin/Cellulose Based Antimicrobial Membranes

*Advisor:* Amanda Ramer-Tait

**Ocanas, Dbanhy**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 97

*Poster Title:* Eye movement modeling examples for Program comprehension and Debugging

*Advisor:* Grace Panther

**Oluseyi-Oke, Naomi**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 39

*Poster Title:* Determining the Extinction Coefficient of an Azo Group in a Peptide

*Advisor:* James Checco

**Palacio, Chabelly**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 84

*Poster Title:* Developing Passive Samplers for Antimicrobial Resistance (AMR) Surveillance in Surface Water

*Advisor:* Xu Li

**Parent, Symone**

*Research Group:* UCARE

*Poster Location:* 4

*Poster Title:* Whose Mental Health Are You Talking About?: The Influence of Racial Bias when Identifying Mental Illness in a Carceral Environment.

*Advisor:* Cynthia Willis-Esqueda

**Petersen, Mollie**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 102

*Poster Title:* Course Detective: Changes in Instructional Practices Observed in Syllabi Over Nine Semesters

*Advisor:* Grace Panther

**Pouliot, Corrine**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 30

*Poster Title:* Role of Liguleless (LG1) Gene in Sorghum Defense Against Sap-feeding Aphids

*Advisor:* Joe Louis

**Prakapchuk, Vladislav**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 127

*Poster Title:* Surface Evolution of Femtosecond Laser Processed Copper Subject to Hydrogen Annealing

*Advisor:* Graham Kaufman

**Puoch, Lim**

*Research Group:* UCARE

*Poster Location:* 5

*Poster Title:* Painting in Practice

*Advisor:* Byron Anway

**Purbey, Yashraj**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 128

*Poster Title:* Developing a software tool to identify genotype-specific RNA splicing events in rice, maize, and sorghum populations to link them to the phenotype of oil accumulation and biomass

*Advisor:* Chi Zhang

**Pushkaran, Devadarshan**

*Research Group:* UCARE

*Poster Location:* 68

*Poster Title:* Developing an LLM Pipeline for Bloom's Taxonomy-Aligned Statistics Quiz Question Generation with Iterative Feedback Refinement

*Advisor:* Seth Polsley

**Quach, Ha**

*Research Group:* James Schnable Lab

*Poster Location:* 55

*Poster Title:* miR172 Plays a Role in Regulating the Plasticity of Flowering in Sorghum in Response to Variable Environments

*Advisor:* James Schnable

**Raghuvanshi, Shrimai**

*Research Group:* UCARE

*Poster Location:* 43

*Poster Title:* Investigating the Sequence Dependence of 7SK RNA SL3 in Vertebrates

*Advisor:* Catherine Eichhorn

**Reeb, Joelle**

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

*Poster Location:* 114

*Poster Title:* Release of Nano- and Microplastics During Infant Formula Preparation from Various Bottle Materials

*Advisor:* Yusong Li

**Reiser, Kaleb**

*Research Group:* UCARE

*Poster Location:* 83

*Poster Title:* Vehicle-to-Grid Technology: A Comprehensive Analysis

*Advisor:* Wei Qiao

**Renner, Lane**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 99

*Poster Title:* Course Detective: Investigating Environmental Changes in Engineering Courses Through Syllabi

*Advisor:* Grace Panther

**Rogers, Seth**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 129

*Poster Title:* Controlling Liquid Metal Droplet Morphology for Thermal Interface Material Optimization

*Advisor:* Eric Markvicka

**Rose, Abigail**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 72

*Poster Title:* Cross-Feeding Interactions Between *Anaerostipes caccae* and *Bifidobacterium animalis* subsp. *lactis* Induce Gas and Butyrate Production during Raffinose Metabolism

*Advisor:* Devin Rose

**Ruberte, Adriana S**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 73

*Poster Title:* Exploring the Crosstalk Between Gut Microbiota and Plant Exosome-Like Nanoparticles

*Advisor:* Jennifer Auchtung

**Ryan, Maura**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 45

*Poster Title:* Investigating the Mechanism by which the Type IV Secretion System Controls the Antibiotic HSAF Production in *Lysobacter enzymogenes*

*Advisor:* Liangcheng Du

**Sajeesh, Samarth**

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

*Poster Location:* 115

*Poster Title:* The 2012 Central U.S. Flash Drought: Drivers and Impacts in a Rapidly Changing Climate

*Advisor:* Liang Chen

**Salami, Semiha**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 85

*Poster Title:* Characterizing Long-term Functionality and Resiliency of Small Drinking Water Systems

*Advisor:* Kaycie Lane

**Sansone, Brooke**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 100

*Poster Title:* Building Accessible Pathways to Civil Engineering for Students with Disabilities

*Advisor:* Logan Perry

**Santos, Carlo**

*Research Group:* McNair Scholars Program

*Poster Location:* 17

*Poster Title:* Modeling Gas Phase Ultrafast Electron Diffraction

*Advisor:* Martin Centurion

**Shen, Jeff**

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

*Poster Location:* 118

*Poster Title:* Bayesian Optimization-Guided Discovery of High-Performance Mo-Ta-Nb Alloys Using Machine Learning Property Prediction

*Advisor:* Bai Cui

**Shreve, Logan**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 23

*Poster Title:* The SPYDER's Web: Using Python to Optimize Cas3 Spacer Design

*Advisor:* Clemencia M. Rojas

**Sicks, Allyssa**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 50

*Poster Title:* Characterization of primate-specific interferon regulatory factor 9 in EBV latencies

*Advisor:* Luwen Zhang

**Sorto, Xavier**

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

*Poster Location:* 119

*Poster Title:* Correlation Between Surface Morphology and Magnetic Properties of Iron Germanium Films

*Advisor:* Robert Streubel

**Soto, Savannah**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 86

*Poster Title:* Stabilization of Soils from Rural Nebraska Using Steel by-Product

*Advisor:* Jamilla Teixeira

**Spaho, Anisa**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 87

*Poster Title:* Effects of Consumptive Water Use on Soil Moisture in the Midwest

*Advisor:* Tirthankar Roy

**Stone, Edward**

*Research Group:* UCARE

*Poster Location:* 89

*Poster Title:* Metabolic Reconstruction and Resource Allocation in *Rickettsia Rickettsii*

*Advisor:* Rajib Saha



**Stonestreet, Liam**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 65

*Poster Title:* MeshPerf: A Python Framework to Assess Mesh Network Performance in Mobile UAV Systems

*Advisor:* Brittany Duncan

**Swoboda, Cooper**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 130

*Poster Title:* Pool Boiling of Femtosecond Laser Surface Processed Stainless Steel to maximize Critical Heat Flux

*Advisor:* George Gogos

**Tapia, Alex**

*Research Group:* McNair Scholars Program

*Poster Location:* 18

*Poster Title:* Does Executive Control Mediate the Association Between Early Environmental Stressors and Academic Outcome Over a Decade Later?

*Advisor:* Timothy Nelson

**Tchamdja, Aureliane**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 88

*Poster Title:* Autonomous Ground and Air Systems for Last-Mile Mobility: A Case Study on Nebraska's Agriculture System

*Advisor:* Wissam Kontar

**Teggatz, Anna**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 46

*Poster Title:* Spectroscopic Characterization of Segregation and Remixing Dynamics in Mixed Halide Perovskites

*Advisor:* Yinsheng Guo

**Texel, Ashley**

*Research Group:* UNL Department of Biochemistry

*Poster Location:* 27

*Poster Title:* Early-Stage Construction of a Viral Vector for Stabillin-1 Knockout in Mouse Models

*Advisor:* Edward N. Harris

**Thompson, Braedyn**

*Research Group:* Nebraska Center for Energy Sciences Research

*Poster Location:* 131

*Poster Title:* Surface Area and Porosimetry Measurements on Femtosecond Laser Surface Processed Copper

*Advisor:* Craig Zuhlke

**Tort Casiano, Kiara**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 101

*Poster Title:* Virtual Reality for AE/C Students: Exploring Flow, Experience, and Difficulty

*Advisor:* Heidi Diefes-Dux

**Treijs, Eva**

*Research Group:* UCARE

*Poster Location:* 28

*Poster Title:* Using Mix-and-Inject Serial X-ray Crystallography to Study cPGA Hydrolase Activity in Parkinson's Disease Protein DJ-1

*Advisor:* Mark Wilson

**Udby, Andreas (Mick)**

*Research Group:* UCARE

*Poster Location:* 11

*Poster Title:* The Drought Code: Foundation for Nebraska's Fire Weather Index

*Advisor:* Ross Dixon

**Van Haren, Christina**

*Research Group:* UCARE

*Poster Location:* 53

*Poster Title:* Levering Museum Specimens and Genomics to Empower Vernal Pool Conservation

*Advisor:* Rebecca Varney

**Vega, Genevieve**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 98

*Poster Title:* Eye Movement Modeling Examples for Program Comprehension and Debugging

*Advisor:* Bonita Sharif

**Waite, Maria**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 31

*Poster Title:* Uncovering Novel Sources of Resistance: Screening Maize Diversity Panels Against A Chewing Insect Herbivore

*Advisor:* Joe Louis

**Walker, Olivia**

*Research Group:* North Central Region Watershed Network: Next Generation of Extension

*Poster Location:* 93

*Poster Title:* Backyard composting: how different methods, mixes, and additives change the efficacy of using composting to manage chicken mortalities for backyard poultry farmers

*Advisor:* Amy Schmidt

**Wang, Albert**

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

*Poster Location:* 121

*Poster Title:* Widefield Relaxation Microscopy of Nitrogen Vacancy Centers in Diamond

*Advisor:* Abdelghani Laraoui

**Wang, Weili**

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

*Poster Location:* 120

*Poster Title:* Tunable CrCl<sub>3</sub> Tunnel Junctions via PbZr<sub>0.2</sub>Ti<sub>0.8</sub>O<sub>3</sub> Membrane Integration: Fabrication and Performance Analysis

*Advisor:* Xia Hong

**Wegener, Verity**

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

*Poster Location:* 122

*Poster Title:* Fabrication and Characterization of Fe(phen)<sub>2</sub>(NCS)<sub>2</sub>, Polyaniline, and Nickel Cobaltite Nanocomposites

*Advisor:* Rebecca Lai

**Wenninghoff, Sydnee**

*Research Group:* UCARE

*Poster Location:* 7

*Poster Title:* Bridging Cultures: Analyzing Educational Practices in Morioka, Japan and Their Implications for American Schools

*Advisor:* Edmund Hamann

**Wickham, Sidney**

*Research Group:* UCARE

*Poster Location:* 1

*Poster Title:* The Oregon Trail and Homesteading through Minority Groups' Oral Histories and Ethnography

*Advisor:* Emira Ibrahimipai

**Wilhelm, Michael**

*Research Group:* UCARE

*Poster Location:* 29

*Poster Title:* Preparation of Stabilin Ecto-Domains for Cryo-EM Structural Studies

*Advisor:* Edward N. Harris

**Woller, Rylee**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 47

*Poster Title:* Defining Serine Racemase: Tools for Therapeutic Inhibition in Neurological Disease

*Advisor:* David Berkowitz

**Wyllie, Andrew**

*Research Group:* Nebraska Summer Research Program

*Poster Location:* 51

*Poster Title:* Role of Arabidopsis Dicer-Like Protein (2,4) in Viral Infection

*Advisor:* Hernan Garcia Ruiz

**Zhang, Zora**

*Research Group:* UCARE

*Poster Location:* 8

*Poster Title:* Improving Teaching Method in Environmental Health Course (NRES/NUTR 330)  
Based on Survey Responses

*Advisor:* Martha Rhoades