

SURF 2025 Program of Presenters

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3:30-4:15PM
2nd Floor Hallway

Nidhi Anugu (Human Physiology - Spring 2025)
Mentor(s): Masaaki Kurahashi
(Internal Medicine)

Investigating the role of platelet-derived growth factor receptor α (PDGFR α) positive interstitial cells (PIC) in gastrointestinal (GI) motility and dysmotility

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3:30-4:15PM
2nd Floor Hallway

Miranda Burnett (Accounting, Business Analytics - Spring 2025)
Mentor(s): Jaron Wilde
(Accounting)

The Potential Link Between Money Laundering and Tax Evasion

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3:30-4:15PM
2nd Floor Hallway

Jacob Cannon (Biomedical Engineering - Spring 2027)
Mentor(s): Kristan Worthington
(Biomedical Engineering)

Characterization of Bio-sourced Photoinitiator Systems (Bio-PhInS)

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3:30-4:15PM
2nd Floor Hallway

Ian Triplett (Philosophy - Spring 2025)
Mentor(s): Cathleen Moore
(Psychological Brain Sci)

The oddball effect extends to dynamic stimuli

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3:30-4:15PM
2nd Floor Hallway

Ethan Chodur (Microbiology, Public Health - Spring 2027)
Mentor(s): Dustin Bosch
(Pathology)

Post-Transcriptional Regulation of MANPUL by Noncoding RNAs and Ribosomal Binding Proteins in Bacteroides thetaiotaomicron
Chodur E, Parajuli B, Daum M, Gebhardt MJ, Bosch DE

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3:30-4:15PM
2nd Floor Hallway

Kaitlyn Claypool (Exercise Science - Spring 2025)
Mentor(s): Terry Wahls
(Internal Medicine)

Adverse Childhood Experience Data for Efficacy of Diet on Quality of Life in Multiple Sclerosis (EDQ-MS)

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3:30-4:15PM
2nd Floor Hallway

Jae Dancer (Geoscience - Fall 2025)
Mentor(s): Benjamin Swanson
(Earth & Environmental Sci)

Groundwater Monitoring and Ecological Assessment Along Camp Cardinal Creek

SURF 2025 Program of Presenters

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3:30-4:15PM
2nd Floor Hallway

Zachary Darr (Biochemistry and Molecular Biology - Spring 2025)
Mentor(s): Lori Wallrath
(Biochem & Molecular Bio)

An unbiased drug screen to treat a rare muscular dystrophy

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3:30-4:15PM
2nd Floor Hallway

Vanessa DeMarco (Economics, Ethics and Public policy, Political Science - Spring 2026)
Mentor(s): Brian Lai
(Political Science)

Private Prisons, Private Interest: Examining the Campaign Contributions of Private Prisons to Pro-Life Gubernatorial Candidates

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3:30-4:15PM
2nd Floor Hallway

Adam Deters (Human Physiology - Spring 2027)
Mentor(s): Shujie Yang
(Pathology)

Patient-Derived Model Systems of Endometrial Cancers for Disease Modeling and Drug Sensitivity Testing

11

3:30-4:15PM
2nd Floor Hallway

Charles Duffy (Theatre Arts, Psychology - Spring 2026)
Mentor(s): Isaac Petersen
(Psychological Brain Sci)

Investigating The Link Between Negative Parenting Practices and Child Inhibitory Control Across Time

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3:30-4:15PM
2nd Floor Hallway

Connor Roberts (Psychology - Spring 2025)
Mentor(s): Isaac Petersen
(Psychological Brain Sci)

Investigating The Link Between Negative Parenting Practices and Child Inhibitory Control Across Time

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3:30-4:15PM
2nd Floor Hallway

Delaney Eden (Political Science - Spring 2025)
Mentor(s): Brian Lai
(Political Science)

Research on the Detainees at Guantanamo Bay post 9/11.

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3:30-4:15PM
2nd Floor Hallway

Devin Ensley (Political Science - Spring 2025)
Mentor(s): Frederick Boehmke | Taylor Tokos
(Political Science | Political Science)

The effect of gender of state executives during the COVID-19 pandemic

SURF 2025 Program of Presenters

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3:30-4:15PM
2nd Floor Hallway

Alliyah Kazan (Political Science - Spring 2025)
Mentor(s): **Frederick Boehmke**
(Political Science)

The effect of gender of state executives during the COVID-19 pandemic

14
3:30-4:15PM
2nd Floor Hallway

Darby Forsyth (Biology - Spring 2025)
Mentor(s): **Hans Joachim-Lehmle | Laura Dean**
(Occup & Environ Health | Occup & Environ Health)

Metabolomic Alterations Induced by Heat Exposure in Pregnant Mice

15
3:30-4:15PM
2nd Floor Hallway

Hannah Franke (Psychology, Linguistics - Spring 2025)
Mentor(s): **Bob McMurray**
(Psychological Brain Sci)

The Impact of Meaning-Based Priming on the Dynamics of Spoken Word Recognition

16
3:30-4:15PM
2nd Floor Hallway

Grace Pierce (Biomedical Sciences -)
Mentor(s): **Jan Fassler | Tara Hicks**
(Biology | Biology)

Using Yeast to Investigate the Role of ATP in Pathological Aggregation

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3:30-4:15PM
2nd Floor Hallway

Colin Houts (Chemical Engineering - Spring 2025)
Mentor(s): **Eric Nuxoll**
(Chemical & Biochem Engine)

Design and Synthesis of NIR-Fluorescent Carbon Dots for Remote Temperature Detection

18
3:30-4:15PM
2nd Floor Hallway

Jack Ingalls (Nondegree Student - Spring 2029)
Mentor(s): **Greta Sokoloff | Mark Blumberg**
(Psychological Brain Sci | Psychological Brain Sci)

Age-dependent effects of 3-acetylpyridine injection on developing cerebellar olivary climbing fibers

19
3:30-4:15PM
2nd Floor Hallway

Neeki Karami (Public Health - Spring 2027)
Mentor(s): **Catherine Marcinkiewicz | Nagalakshmi Balasubramanian**
(Neurosci & Pharmacology | Neurosci & Pharmacology)

Neurobiological Effects of Dorsal Raphe Serotonin Systems on Social Avoidance in Alcohol Use Disorders

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3:30-4:15PM
2nd Floor Hallway

Sehansa Karunatilaka (Human Physiology - Spring 2025)

Mentor(s): Kara Whitaker | Jae Myung Kim
(Health & Human Physiology | Health & Human Physiology)

The Relationship Between Perceived Social Support and Sleep Quality During Pregnancy

21

3:30-4:15PM
2nd Floor Hallway

Emily Kelly (Psychology - Spring 2026)

Mentor(s): Isaac Petersen | Zachary Demko
(Psychological Brain Sci | Psychological Brain Sci)

Associations Between Inhibitory Control and Academic Success: Investigating Parental Attachment as a Moderator

22

3:30-4:15PM
2nd Floor Hallway

Morgan Linahon (Biochemistry and Molecular Biology - Spring 2025)

Mentor(s): Hans Joachim-Lehmle
(Occup & Environ Health)

Immunohistochemical Analysis Suggests that Exposure to the PCB Metabolite 4-OH-PCB11 Affects Striatal Microglia in Male Rats

23

3:30-4:15PM
2nd Floor Hallway

Sofia Mamakos (Human Physiology - Spring 2026)

Mentor(s): Serena Gumusoglu | Brianna Blaine
(Obstetrics/Gynecology | Obstetrics/Gynecology)

The Effects of Angiotensin II on Maternal Brain and Behavior

24

3:30-4:15PM
2nd Floor Hallway

Daniel Martinez (Chemistry - Spring 26)

Mentor(s): Scott Daly | Balaka Bhuniya
(Chemistry | Graduate College-Admin &)

Boron and Phosphorus K-edge X-ray Absorption Spectroscopy of Metal TBDPhos Complexes

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3:30-4:15PM
2nd Floor Hallway

Sabrina Vlk (Mechanical Engineering - Spring 2025)

Mentor(s): Lori Adams
(Biology)

Interactive STEM Activities and Lessons for Middle School

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3:30-4:15PM
2nd Floor Hallway

Taya Mayo (Psychology - Spring 2025)

Mentor(s): Teresa Treat
(Psychological Brain Sci)

Evidence-Based Treatment for PTSD Related to Sexual Trauma Among College Women

SURF 2025 Program of Presenters

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3:30-4:15PM
2nd Floor Hallway

Andrea Medina (Psychology - Spring 2026)
Mentor(s): **Amanda McCleery | James Lopez**
(Psychological Brain Sci | Psychological Brain Sci)

Association Between Facial Processing and Social Cognition in Schizophrenia

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3:30-4:15PM
2nd Floor Hallway

Chidera Mitchell (Human Physiology - Spring 2026)
Mentor(s): **Lori Adams**
(Biology)

On Your Mind: An Alzheimer's Journey

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3:30-4:15PM
2nd Floor Hallway

Amisha Mohanty (Economics and International Relations - Spring 2025)
Mentor(s): **David Cooper**
(Economics)

Is being Observed Altering the Observation being made?

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3:30-4:15PM
2nd Floor Hallway

Alexia Avila (Health Promotion - Spring 2026)
Mentor(s): **Angela Charsha | Teri Schnelle**
(Recreational Services | teri-schnelle@uiowa.edu)

Future of Fitness at The University of Iowa

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3:30-4:15PM
2nd Floor Hallway

Hannah Mozena (Finance and Accounting - Spring 2026)
Mentor(s): **Angela Charsha | Teri Schnelle**
(Recreational Services | teri-schnelle@uiowa.edu)

Future of Fitness at The University of Iowa

31
3:30-4:15PM
2nd Floor Hallway

Palin Narsian (Biomedical Engineering - Spring 2026)
Mentor(s): **Samuel Stephens**
(Internal Medicine)

Metabolic changes facilitate beta-cell adaptive compensation early in Type 2 Diabetes

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3:30-4:15PM
2nd Floor Hallway

Saina Narsian (Neuroscience - 2028)
Mentor(s): **Gordon Buchanan**
(Neurology)

Effects of Epothilone D on Spike-wave Discharges in a Mouse Model of Tauopathy

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3:30-4:15PM
2nd Floor Hallway

Jack Olson (Environmental Science - Winter 2025)
Mentor(s): **Benjamin Swanson**
(Earth & Environmental Sci)

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Evaluating Bank Erosion Mechanisms in Camp Cardinal Creek, Ashton Prairie Living Laboratory, Iowa City, IA

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3:30-4:15PM
2nd Floor Hallway

Anabel Perez-Brennan (Music Therapy - Spring 2025)

Mentor(s): Abbey Dvorak | Sun Joo Lee
(Music | Music)

Exploring the Effects of Therapeutic Group Singing on Young Adults

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3:30-4:15PM
2nd Floor Hallway

Elizabeth Von Loh (Religious Studies; English and Creative Writing - Spring 2025)

Mentor(s): Brandon Dean
(Religious Studies)

The True Superstar: The Character of Judas in Jesus Christ Superstar

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3:30-4:15PM
2nd Floor Hallway

Michael Schuster (Finance and Religious Studies - Spring 2028)

Mentor(s): Ahmed Souaiaia | Brandon Dean
(Religious Studies | Religious Studies)

Understanding China's Broad Motivations Behind Uighur Oppression

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3:30-4:15PM
2nd Floor Hallway

Becky Selmani (Public Health Pre-Medicine - Spring 2027)

Mentor(s): Catherine Marcinkiewicz | Ruixiang Wang
(Neurosci & Pharmacology | Neurosci & Pharmacology)

Accumbal serotonin signaling tracks both appetitive and aversive stimuli

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3:30-4:15PM
2nd Floor Hallway

Kenna Skinner (Biomedical Sciences - Fall 2027)

Mentor(s): Hanna Stevens | Michelle Chen
(Psychiatry | Psychiatry)

Effects of Chlorpyrifos and Alpha-Cypermethrin on the Adolescent Mouse Liver: Metabolic and Oxidative Stress Pathways

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3:30-4:15PM
2nd Floor Hallway

Piper Steburg (Speech and Hearing Science - Spring 2027)

Mentor(s): Mili Kuruvilla-Dugdale | Deepthi Crasta
(Communic Sci & Disorders | Communic Sci & Disorders)

Establishing Visual Analog Scale Thresholds for Dysarthria Severity: Sensitivity and Specificity Analysis

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3:30-4:15PM
2nd Floor Hallway

Emma Woodford (Speech and Hearing Science -)

Mentor(s): Mili Kuruvilla-Dugdale
(Communic Sci & Disorders)

SURF 2025 Program of Presenters

Establishing Visual Analog Scale Thresholds for Dysarthria Severity: Sensitivity and Specificity Analysis

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3:30-4:15PM
2nd Floor Hallway

Charlotte Tesar (Psychology - Spring 2025)
Mentor(s): Sarah Ferri
(Pediatrics)

Neonatal gonadal hormone dysregulation induces social and fear deficits in wild-type mice

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3:30-4:15PM
2nd Floor Hallway

Nora Thiel (Speech and Hearing Sciences - Spring 2025)
Mentor(s): Elizabeth Walker
(Communic Sci & Disorders)

Vocabulary Growth and Reading Outcomes in Children Who Are Hard of Hearing

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3:30-4:15PM
2nd Floor Hallway

Adriana Castellano (Marketing - Spring 2027)
Mentor(s): Maurine Neiman | Yiming Liu
(Biology | Neurology)

"Tentacle Tales: How Genome Architecture and Nutrient Availability Shape Tissue Regeneration in a Freshwater Snail"

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3:30-4:15PM
2nd Floor Hallway

Alexis Collins (Neuroscience - Spring 2027)
Mentor(s): Maurine Neiman | Yiming Liu
(Biology | Neurology)

"Tentacle Tales: How Genome Architecture and Nutrient Availability Shape Tissue Regeneration in a Freshwater Snail"

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3:30-4:15PM
2nd Floor Hallway

Peter Nitsche (Exercise Science - Spring 2027)
Mentor(s): Maurine Neiman | Yiming Liu
(Biology | Neurology)

"Tentacle Tales: How Genome Architecture and Nutrient Availability Shape Tissue Regeneration in a Freshwater Snail"

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3:30-4:15PM
2nd Floor Hallway

Tae Shaun Presswood (Biology - Spring 2027)
Mentor(s): Maurine Neiman | Yiming Liu
(Biology | Neurology)

"Tentacle Tales: How Genome Architecture and Nutrient Availability Shape Tissue Regeneration in a Freshwater Snail"

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3:30-4:15PM
2nd Floor Hallway

Katherine Prichard (Biology - Spring 2027)
Mentor(s): Maurine Neiman | Yiming Liu
(Biology | Neurology)

SURF 2025 Program of Presenters

"Tentacle Tales: How Genome Architecture and Nutrient Availability Shape Tissue Regeneration in a Freshwater Snail"

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3:30-4:15PM
2nd Floor Hallway

Paige Wiebke (Biochemistry - Spring 2025)

Mentor(s): Lori Wallrath
(Biochem & Molecular Bio)

Mouse models of SNRNP200-associated Retinitis Pigmentosa.

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3:30-4:15PM
2nd Floor Hallway

Sammi Wei (Speech and Hearing Sciences - Spring 2025)

Mentor(s): Christine Shea | Wenqi Zeng
(Spanish & Portuguese)

Comparison of Mandarin Tone Perception in Heritage and Second Language Speakers.

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3:30-4:15PM
2nd Floor Hallway

Anton Dittmer (Chemistry -)

Mentor(s): Scott Shaw
(Chemistry)

Porosity Effects on Cell Growth in 3D-printed Bioglass Structures

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3:30-4:15PM
2nd Floor Hallway

Owen Ferneding (Biomedical Engineering -)

Mentor(s): Scott Shaw
(Chemistry)

Porosity Effects on Cell Growth in 3D-printed Bioglass Structures

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3:30-4:15PM
2nd Floor Hallway

Levi Rosenboom (Biochemistry and Molecular Biology - 2027)

Mentor(s): Scott Shaw
(Chemistry)

Porosity Effects on Cell Growth in 3D-printed Bioglass Structures

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3:30-4:15PM
2nd Floor Hallway

Alex Steffen (Biology -)

Mentor(s): Scott Shaw
(Chemistry)

Porosity Effects on Cell Growth in 3D-printed Bioglass Structures

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3:30-4:15PM
2nd Floor Hallway

Isaac Young (Geography (GIS) - Spring 2025)

Mentor(s): Susan Meerdink
(Geogra&Sustainability Sci)

Identifying Bur Oak Blight with Satellite Imagery

SURF 2025 Program of Presenters

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3:30-4:15PM
UCC-2520D

Megan Address (Religious studies, history, and ancient civilizations - Spring 2026)

Mentor(s): **Brandon Dean**
(Religious Studies)

The Ark Encounter: American Recreation or Re-Creation?

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3:30-4:15PM
UCC-2520D

Misha DeBoef-Misyuk (Religious Studies and Anthropology - Spring 2025)

Mentor(s): **Brandon Dean**
(Religious Studies)

From Pariah to Pack: Queer Community in the Apocalyptic TTRPG

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3:30-4:15PM
UCC-2520D

Finley Deevy (Computer Science - Spring 2026)

Mentor(s): **Cathleen Moore | Michael Paavola**
(Psychological Brain Sci | Psychological Brain Sci)

An Interactive Virtual Reality Environment for Research on Lifeguard Surveillance

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3:30-4:15PM
UCC-2520D

Adithya Mukundan (Computer Science - Spring 2025)

Mentor(s): **Cathleen Moore | Michael Paavola**
(Psychological Brain Sci | Psychological Brain Sci)

An Interactive Virtual Reality Environment for Research on Lifeguard Surveillance

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3:30-4:15PM
UCC-2520D

Avery Domino (Ancient Civilizations, Classical Languages, and Anthropology - Spring 2026)

Mentor(s): **Katina Lillios | Corinne Watts**
(Anthropology | Anthropology)

Used It and Lost It: Use Wear on Fibrolite Macrolithic Tools

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3:30-4:15PM
UCC-2520D

Stella Gerlock (Civil Engineering - Spring 2027)

Mentor(s): **Cong Wang | David Butler**
(Mechanical Engineering | Mechanical Engineering)

Influence of Surface Roughness on Near Free-Surface Turbulent Wakes of Extended Bluff Bodies

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3:30-4:15PM
UCC-2520D

Jasmine Lee (Global Health Studies - Spring 2025)

Mentor(s): **Anne Kiche**
(Interdisciplinary Prog)

Examining the Extent of Knowledge of Dementia and Caregiving Abilities of Southeast Asians in Iowa

SURF 2025 Program of Presenters

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3:30-4:15PM
UCC-2520D

Ava Martinez (Political Science & Ethics and Public Policy - Spring 2027)
Mentor(s): Nicholas Martini
(Political Science)

Expanding Rail Infrastructure in Iowa

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3:30-4:15PM
UCC-2520D

Jami Martin-Trainor (Journalism & Political Science - Spring 2025)
Mentor(s): Nicholas Martini
(Political Science)

Expanding Rail Infrastructure in Iowa

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3:30-4:15PM
UCC-2520D

Landon McPike (Political Science B.S - Spring 2025)
Mentor(s): Nicholas Martini
(Political Science)

Expanding Rail Infrastructure in Iowa

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3:30-4:15PM
UCC-2520D

Kade Tanke (Psychology - Spring 2026)
Mentor(s): Cathleen Moore
(Psychological Brain Sci)

Dissociating the roles of spatial position within the visual field and the implied destination of a moving object in the perceptual-motor congruence effect known as the Simon Effect

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4:20-5:05PM
2nd Floor Hallway

Anirudh Pradeep (Neuroscience Pre Med Track - Spring 2025)
Mentor(s): Songhai Chen
(Neurosci & Pharmacology)

Unveiling RACK1: a key regulator of the PI3K/AKT pathway in prostate cancer development

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4:20-5:05PM
2nd Floor Hallway

Adrianna Segal (Neuroscience - Spring 2025)
Mentor(s): Jan Wessel
(Psychological Brain Sci)

Decoding the Neural Mechanisms of Salience Detection and Goal Updating

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4:20-5:05PM
2nd Floor Hallway

Emily Fultz (Psychology - Winter 2025)
Mentor(s): Susan Lutgendorf
(Psychological Brain Sci)

Utilizing Natural Language Processing to Understand Mechanisms of Personal Growth and Change in a Group-Based Virtual Intervention for Ovarian Cancer Survivors

SURF 2025 Program of Presenters

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4:20-5:05PM
2nd Floor Hallway

Emma Anderson (International Relations and Political Science - Spring 2025)

Mentor(s): Brian Lai
(Political Science)

Impact of Illness and Media Attention on the Release of Wrongfully and Unlawfully Detained Individuals

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4:20-5:05PM
2nd Floor Hallway

Ella Apana-Stipe (Political Science and Ethics and Public Policy - Spring 2025)

Mentor(s): Nicholas Martini
(Political Science)

Addressing Rural Iowa's Physician Shortage and Healthcare Challenges

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4:20-5:05PM
2nd Floor Hallway

Ondrea Li (International Relations and Journalism - Spring 2025)

Mentor(s): Nicholas Martini
(Political Science)

Addressing Rural Iowa's Physician Shortage and Healthcare Challenges

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4:20-5:05PM
2nd Floor Hallway

Emily Bieber (Chemical Engineering - Spring 2025)

Mentor(s): Scott Shaw | Uchechukwu Akporere
(Chemistry | Chemistry)

Tracking the initial stages of film formation using Quartz Crystal Microbalance (QCM) techniques

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4:20-5:05PM
2nd Floor Hallway

Melodie Bui (Human Physiology - Fall 2025)

Mentor(s): Shawn Flanagan
(Health & Human Physiology)

A Literature Review: Exploring the Correlation Between Gut Dysbiosis and the Onset of Type 1 Diabetes

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4:20-5:05PM
2nd Floor Hallway

Grant Schreiner (Human Physiology - Fall 2025)

Mentor(s): Shawn Flanagan
(Health & Human Physiology)

A Literature Review: Exploring the Correlation Between Gut Dysbiosis and the Onset of Type 1 Diabetes

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4:20-5:05PM
2nd Floor Hallway

Harry Bui (Science Studies (Chemistry Emphasis), U2G MPH Policy - Fall 2025)

Mentor(s): Miles Pufall
(Biochem & Molecular Bio)

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The Impact of Glucocorticoid Receptor Binding Affinity on DNA Damage Formation

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4:20-5:05PM
2nd Floor Hallway

Emma Chase (Business Analytics & Information Systems; Psychology - Spring 2025)

Mentor(s): Emily Campion
(Mgmt & Entrepreneurship)

Gifted and Talented Programs: Selection, Bias, and Long-Term Outcomes

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4:20-5:05PM
2nd Floor Hallway

Disha Chawla (Biology - Fall 2026)

Mentor(s): Hanna Stevens
(Psychiatry)

16p11.2 Deletion Alters Mid-Gestation Placental Morphology in Mice

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4:20-5:05PM
2nd Floor Hallway

Jonathan Clark (Microbiology - Spring 2025)

Mentor(s): Jessica Tucker
(Microbiology & Immunology)

Investigating an antiviral role of angiogenin during Kaposi's sarcoma-associated herpesvirus replication

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4:20-5:05PM
2nd Floor Hallway

Abigail Cupp (Biomedical Sciences - Spring 2026)

Mentor(s): Donna Santillan | Mark Santillan
(Obstetrics/Gynecology | Obstetrics/Gynecology)

Investigating the Role of Decreased Fetal Movement in Predicting Adverse Pregnancy Outcomes

67

4:20-5:05PM
2nd Floor Hallway

Avery Dettbarn (Political Science - Spring 2025)

Mentor(s): Brian Lai
(Political Science)

The effect of race and ethnicity, political partisanship, and degree of state funding for indigent criminal defense on the provision of legal aid

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4:20-5:05PM
2nd Floor Hallway

Minou Emmad (Physics, Computer Science, Math - Spring 2027)

Mentor(s): Michael Schnieders
(Biomedical Engineering)

Understanding TF-DNA Binding with Polarizable Force Fields and Constant pH MD

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4:20-5:05PM
2nd Floor Hallway

Alexander Feller (Biomedical Engineering, Health Science - Spring 2025)

Mentor(s): Louis Kolling
(Neurosci & Pharmacology)

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Impact of Adolescent Ethanol Binge on Pain Sensitivity and Serotonin Signaling

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4:20-5:05PM
2nd Floor Hallway

Abby McLeod (Neuroscience, Pre-Medicine - Spring 2026)
Mentor(s): Joseph Glykys
(Pediatrics)

Neonatal brain hypoxia results in increased neocortical neurodegeneration

71

4:20-5:05PM
2nd Floor Hallway

Claire Graham (Biomedical Engineering - Spring 2025)
Mentor(s): Michelle Howard
(Radiation Oncology)

Enhancing radiation efficacy in diffuse intrinsic pontine glioma through targeted redox dysregulation

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4:20-5:05PM
2nd Floor Hallway

Zoe Greenwood (Philosophy and Psychology - Spring 2025)
Mentor(s): Katarina Perovic
(Philosophy)

Beyond The Flicking of a Wrist: How Response Time Could Save Free Will

73

4:20-5:05PM
2nd Floor Hallway

Aden Hageman (Physics - Spring 2025)
Mentor(s): Ravitej Uppu
(Physics & Astronomy)

Resonant Spectroscopy of GaSb Quantum Dots

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4:20-5:05PM
2nd Floor Hallway

Avery Hand (Biology - Spring 2025)
Mentor(s): Daniel Summers
(Biology)

ROLE OF SARM1 IN RELATION TO CHEMOTHERAPY-INDUCED PERIPHERAL NEUROPATHY OF HYPERSENSITIVE AXONAL CULTURES

75

4:20-5:05PM
2nd Floor Hallway

Emily Roberts (Microbiology & Bassoon Performance - Spring 2026)
Mentor(s): Jeremiah Johnson | Madison Bunch
(Microbiology & Immunology | Microbiology & Immunology)

Neutrophil responses to Campylobacter jejuni: investigating the role of IL-8 stimulation in Bacterial Clearance

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4:20-5:05PM
2nd Floor Hallway

Elleri Herman (Human Physiology - Fall 2025)
Mentor(s): Gordon Buchanan
(Neurology)

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Investigating a Role of Time of Day and Serotonin On The Effects of Seizures On CO₂, Arousal in Amygdala Kindled Mice

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4:20-5:05PM
2nd Floor Hallway

Jason Homann (Physics and Astronomy - Spring 2025)

Mentor(s): Jasper Halekas
(Physics & Astronomy)

Characterizing Toroidal Transformers for Use on an Electrostatic Analyzer

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4:20-5:05PM
2nd Floor Hallway

Rijalda Husic (Ethics and Public Policy and Criminology, Law, and Justice - Spring 2025)

Mentor(s): Stephanie Dipietro
(Sociology and Criminology)

Linking Images of Color with Images of Crime: Immigration in Contemporary Society

79

4:20-5:05PM
2nd Floor Hallway

Jessica Alberhasky (Neuroscience - Spring 2026)

Mentor(s): Catherine Marcinkiewicz
(Neurosci & Pharmacology)

Spatial transcriptomics to identify genetic mediators of neuronal dysfunction in Alzheimer's disease

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4:20-5:05PM
2nd Floor Hallway

Shafa Ismail (Biomedical Engineering, Neuroscience - Spring 2026)

Mentor(s): Catherine Marcinkiewicz
(Neurosci & Pharmacology)

Spatial transcriptomics to identify genetic mediators of neuronal dysfunction in Alzheimer's disease

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4:20-5:05PM
2nd Floor Hallway

Berkley Johnson (Psychology - Fall 2025)

Mentor(s): Martin Kivlighan
(Cedu-Psych & Quant Foundations)

An Investigation on the Efficacy of Mindfulness-Based Interventions in Palliative Care Settings

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4:20-5:05PM
2nd Floor Hallway

Malvika Khadiya (Political Science, Russian, Ethics & Public Policy - Spring 2025)

Mentor(s): Frederick Boehmke
(Political Science)

Reviving the Past: Analyzing Unexplored Public Opinions from 1974 Des Moines, Iowa

SURF 2025 Program of Presenters

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4:20-5:05PM
2nd Floor Hallway

Austin Sachtschale (Polical Science, Economics, Criminology -)

Mentor(s): Frederick Boehmke
(Political Science)

Reviving the Past: Analyzing Unexplored Public Opinions from 1974 Des Moines, Iowa

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4:20-5:05PM
2nd Floor Hallway

James Valentin (Ethics & Public Policy -)

Mentor(s): Frederick Boehmke
(Political Science)

Reviving the Past: Analyzing Unexplored Public Opinions from 1974 Des Moines, Iowa

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4:20-5:05PM
2nd Floor Hallway

Delaney Knutson (Nursing - Fall 2025)

Mentor(s): Barbara Stmarie
(Nursing)

Knowledge Gaps and Experiences of Family Caregivers Caring for their Older Adult at End of Life at Home

83

4:20-5:05PM
2nd Floor Hallway

Alaina Lundquist (Microbiology - Fall 2025)

Mentor(s): Jessica Tucker
(Microbiology & Immunology)

Characterization of Mouse Schlafen (mSlfn) Proteins Role in the DNA Damage Response and Antiviral Proliferation

84

4:20-5:05PM
2nd Floor Hallway

Will Meiners (Physics, Astronomy - Spring 2025)

Mentor(s): John Prineas
(Physics & Astronomy)

Recombination Dynamics of Long Wave Infrared Detectors

85

4:20-5:05PM
2nd Floor Hallway

Hope Minor (Public Health - Spring 2025)

Mentor(s): Alexandria Miller
(Molec Physiology & Biophy)

Progress in Developing an S. cerevisiae Viability Assay to Test the Specificity of a Putative TOK1 Potassium Channel Inhibitor

86

4:20-5:05PM
2nd Floor Hallway

Maryam Mohammed (International Relations - Spring 2025)

Mentor(s): Brian Lai
(Political Science)

Barriers to Healthcare Access for Refugees in the U.S.

SURF 2025 Program of Presenters

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4:20-5:05PM
2nd Floor Hallway

Bailey Newberry (Health Promotion - Spring 2026)
Mentor(s): **Serena Gumusoglu**
(Obstetrics/Gynecology)

Maternal IL-17 Exposure Alters Behavior and Brain Gene Expression in a Pregnancy Model

88

4:20-5:05PM
2nd Floor Hallway

Kenzie Newton (Health Promotion, - Winter 2025)
Mentor(s): **Terry Wahls**
(Internal Medicine)

Efficacy of Diet on Quality of Life in Multiple Sclerosis (EDQ-MS): Participant Demographic Information

89

4:20-5:05PM
2nd Floor Hallway

Jackie Ott (Human Physiology - Spring 2027)
Mentor(s): **Erin Talbert**
(Health & Human Physiology)

*Requirement of *tgfb1* for TGF- β 1 induced glycolysis in skeletal muscle cells*

90

4:20-5:05PM
2nd Floor Hallway

Brooke Paasch (Political Science and International Relations with a Minor in German - Spring 2027)
Mentor(s): **Brian Lai**
(Political Science)

Scrolling into Activism: The Impact of Social Media on Political Participation Among Young Adults in the United States
Child Soldiers: Understanding Their Plight and Gender-Specific Impacts

91

4:20-5:05PM
2nd Floor Hallway

Krush Patel (Neuroscience - Spring 2026)
Mentor(s): **Serena Gumusoglu**
(Obstetrics/Gynecology)

Investigating microglia changes in an inflammatory model of neonatal sepsis

92

4:20-5:05PM
2nd Floor Hallway

Carson Bantz (Physics and Astronomy - Spring 2028)
Mentor(s): **Scott Shaw | Brianna Cannoy**
(Chemistry | Chemistry)

Dicamba and Atrazine in the Water

92

4:20-5:05PM
2nd Floor Hallway

Jennessa Johnson (Medical Laboratory Science Interest - Spring 2028)
Mentor(s): **Scott Shaw | Brianna Cannoy**
(Chemistry | Chemistry)

Dicamba and Atrazine in the Water

SURF 2025 Program of Presenters

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4:20-5:05PM
2nd Floor Hallway

Rebecca Philipsen (Biochemical Engineering - Spring 2028)

Mentor(s): **Scott Shaw | Brianna Cannoy**
(Chemistry | Chemistry)

Dicamba and Atrazine in the Water

93

4:20-5:05PM
2nd Floor Hallway

Isaiah Pielak (Political Science, Psychology, and Ethics and Public Policy - Spring 2026)

Mentor(s): **Elizabeth Menninga**
(Political Science)

Delegate Status and the Success of Peace Negotiations in Civil Conflicts

94

4:20-5:05PM
2nd Floor Hallway

Koro Castillo (Spanish - Spring 2025)

Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, and Violence Lab: European & American Disaster Response

94

4:20-5:05PM
2nd Floor Hallway

Sophia Heller (Philosophy, Political Science - Spring 2025)

Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, and Violence Lab: European & American Disaster Response

94

4:20-5:05PM
2nd Floor Hallway

Isabel Meade (French - Spring 2025)

Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, and Violence Lab: European & American Disaster Response

94

4:20-5:05PM
2nd Floor Hallway

Maddie Patterson (Political Science - Spring 2026)

Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, and Violence Lab: European & American Disaster Response

95

4:20-5:05PM
2nd Floor Hallway

Madelin Schwager (Biochemistry and Neuroscience - Spring 2026)

Mentor(s): **Jon Resch**
(Neurosci & Pharmacology)

Investigating the regulation of aldosterone-sensing neurons and sodium appetite by leptin

SURF 2025 Program of Presenters

96

4:20-5:05PM
2nd Floor Hallway

Kyra Howieson (Biomedical Engineering - Spring 2027)

Mentor(s): Xuan Mu
(Biomedical Engineering)

Evaluating the Impact of Various Anions on Silk Aggregation: A Study Based on the Hofmeister Scale

96

4:20-5:05PM
2nd Floor Hallway

Maanit Sheth (Biomedical Engineering - Spring 2028)

Mentor(s): Xuan Mu
(Biomedical Engineering)

Evaluating the Impact of Various Anions on Silk Aggregation: A Study Based on the Hofmeister Scale

97

4:20-5:05PM
2nd Floor Hallway

Anjali Subash (Marketing - Spring 2025)

Mentor(s): Bowen Ruan
(Marketing)

When Fear Meets Curiosity: The Effectiveness of Emotional Appeals in Communicating Environmental Risks

98

4:20-5:05PM
2nd Floor Hallway

Isabelle Yoder (Neuroscience - Spring 2027)

Mentor(s): Natalie Denburg
(Neurology)

Quantifying the Relationship Between Sleep Quality and Cognitive Function in Healthy, Older Adults

99

4:20-5:05PM
2nd Floor Hallway

Grace Hahn (Communication Sciences and Disorders, Psychology - Spring 2025)

Mentor(s): Philip Combiths
(Communic Sci & Disorders)

Family Support Workers Language Sampling in Multilingual Homes

100

4:20-5:05PM
2nd Floor Hallway

Kate Beeman (Environmental Policy - Spring 2026)

Mentor(s): Samantha Zuhlke | LilliAnna Scott
(Sch of Plan & Pub Affairs | Sch of Plan & Pub Affairs)

Small Town Iowa Policy Outcomes: Analyzing City-level Public Services Using Google Street View

100

4:20-5:05PM
2nd Floor Hallway

Amukta Gantalamohini (Environmental Policy & Planning - Spring 2025)

Mentor(s): Samantha Zuhlke | LilliAnna Scott
(Sch of Plan & Pub Affairs | Sch of Plan & Pub Affairs)

SURF 2025 Program of Presenters

Small Town Iowa Policy Outcomes: Analyzing City-level Public Services Using Google Street View

100

4:20-5:05PM
2nd Floor Hallway

Grace Koch (Environmental Science - Spring 2026)
Mentor(s): **Samantha Zuhlke | LilliAnna Scott**
(Sch of Plan & Pub Affairs | Sch of Plan & Pub Affairs)

Small Town Iowa Policy Outcomes: Analyzing City-level Public Services Using Google Street View

100

4:20-5:05PM
2nd Floor Hallway

Abby McKeone (Environmental Policy & Social Justice - Spring 2025)
Mentor(s): **Samantha Zuhlke | LilliAnna Scott**
(Sch of Plan & Pub Affairs | Sch of Plan & Pub Affairs)

Small Town Iowa Policy Outcomes: Analyzing City-level Public Services Using Google Street View

101

4:20-5:05PM
2nd Floor Hallway

Lauren Smith (Neuroscience, Anthropology - Spring 2028)
Mentor(s): **Gordon Buchanan**
(Neurology)

Impact of seizures on the arousal response to CO₂

102

4:20-5:05PM
UCC-2520D

Brandon Alpers (Speech & Hearing Sciences - Spring 2025)
Mentor(s): **Elizabeth Walker | Kellsie Busho**
(Communic Sci & Disorders | Faculty/Staff)

Spatial release from masking in children with unilateral hearing loss

103

4:20-5:05PM
UCC-2520D

Nidhi Anugu (Human Physiology - Spring 2025)
Mentor(s): **Teri Schnelle**
(-Student Services)

Resident Hall Assistant (RA) Competency and Confidence in Responding to Disclosures of Sexual Misconduct

103

4:20-5:05PM
UCC-2520D

Victor Fontanez (Public Health - Spring 2027)
Mentor(s): **Teri Schnelle**
(-Student Services)

Resident Hall Assistant (RA) Competency and Confidence in Responding to Disclosures of Sexual Misconduct

104

4:20-5:05PM
UCC-2520D

Fiona Holmes (Physics, Astronomy - Spring 2026)
Mentor(s): **Valerie Payre**
(Earth & Environmental Sci)

SURF 2025 Program of Presenters

EFFECTS OF GRAIN SIZE ON VISIBLE/NEAR INFRARED SIGNALS IN FELDSPAR-BEARING TERRAINS ON MARS.

105
4:20-5:05PM
UCC-2520D

Grace Lin (Ancient Civilizations - Spring 2027)
Mentor(s): **Brandon Dean**
(Religious Studies)

History in Gilead - The Handmaid's Tale

106
4:20-5:05PM
UCC-2520D

Maya Monk (Integrative Biology B.S. - Spring 2025)
Mentor(s): **Heather Sander**
(Geogra&Sustainability Sci)

Decadal changes in Red-Headed Woodpecker distributions in Iowa

107
4:20-5:05PM
UCC-2520D

Josie Norris (Psychology - Spring 2026)
Mentor(s): **Teresa Treat | Solange Bolger**
(Psychological Brain Sci | Psychological Brain Sci)

College Students' Cannabis Use on College Campuses

108
4:20-5:05PM
UCC-2520D

Allison Stolte (Microbiology (Scholar Track) - Spring 2026)
Mentor(s): **Wendy Maury | Paige Richards**
(Microbiology & Immunology | Microbiology & Immunology)

Ebolavirus Entry Inhibited by Novel Cathepsin Inhibitors

109
4:20-5:05PM
UCC-2520D

Alix Bushard (International Relations & Music - Spring 2025)
Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, Violence Lab: Asian & African Disaster Response

109
4:20-5:05PM
UCC-2520D

Amira Qidwai (International Relations - Spring 2026)
Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, Violence Lab: Asian & African Disaster Response

109
4:20-5:05PM
UCC-2520D

Noah Thomas (Political Science, International Relations, Ethics & Public Policy - Spring 2026)
Mentor(s): **Elise Pizzi | Sara Mitchell**
(Political Science | Political Science)

Disasters, Migration, Violence Lab: Asian & African Disaster Response

SURF 2025 Program of Presenters

110
5:10-5:55PM
2nd Floor Hallway

Fareeha Ahmad (Psychology - Spring 2025)
Mentor(s): **Grazyna Kochanska | Juyoung Kim**
(Psychological Brain Sci | Psychological Brain Sci)

Indirect Relations Between Parental Responsiveness and Preschoolers' Moral Behaviors Through Children's Positive Internal Working Models of the Parent

110
5:10-5:55PM
2nd Floor Hallway

Anuvaa Prabhakaran (Psychology -)
Mentor(s): **Grazyna Kochanska | Juyoung Kim**
(Psychological Brain Sci | Psychological Brain Sci)

Indirect Relations Between Parental Responsiveness and Preschoolers' Moral Behaviors Through Children's Positive Internal Working Models of the Parent

111
5:10-5:55PM
2nd Floor Hallway

Jaden Bartlett (Political Science, English & Creative Writing - Spring 2025)
Mentor(s): **Nicholas Martini**
(Political Science)

From Cornfields to Crosswalks: An Analysis of the Impacts of Rural/Urban Residency and Religious Affiliation on American Political Extremism

112
5:10-5:55PM
2nd Floor Hallway

Josh Bergthold (Computer Science, Mathematics - Spring 2025)
Mentor(s): **Xueyu Zhu**
(Mathematics)

Advancing Neural Network Training: Integrating Data Assimilation Techniques for Robustness under Noisy data

113
5:10-5:55PM
2nd Floor Hallway

Andrew Burgess (Environmental Science, Creative Writing, Philosophy - Spring 2025)
Mentor(s): **Corey Markfort**
(Civil-Environmental Engin)

Modeling Deadly Deoxygenation Events in a Shallow Lake

114
5:10-5:55PM
2nd Floor Hallway

Alix Bushard (International Relations, Music - Spring 2025)
Mentor(s): **Brian Lai**
(Political Science)

Alternative Development and Illicit Crop Eradication

114
5:10-5:55PM
2nd Floor Hallway

Malvika Khadiya (Political Science, Russian, Ethics & Public Policy - Spring 2025)
Mentor(s): **Brian Lai**
(Political Science)

SURF 2025 Program of Presenters

Alternative Development and Illicit Crop Eradication

114
5:10-5:55PM
2nd Floor Hallway

Isaiah Pielak (Political Science, Psychology, Ethics & Public Policy - Spring 2026)

Mentor(s): Brian Lai
(Political Science)

Alternative Development and Illicit Crop Eradication

115
5:10-5:55PM
2nd Floor Hallway

Gavin Clark (Biochemistry & Molecular Biology - Spring 2025)

Mentor(s): Ashutosh Mangalam
(Pathology)

Administration of Bifidobacterium adolescentis and Akkermansia muciniphila Results in Unique Microbiota Compositions in a pseudo germ-free mouse model

116
5:10-5:55PM
2nd Floor Hallway

Audrey Coleman (Biochemistry & Molecular Biology, B.S. - Spring 2026)

Mentor(s): Ronald Weigel
(Surgery)

AP-2 α Regulates Uveal Melanoma Proliferation Pathways In Vitro

117
5:10-5:55PM
2nd Floor Hallway

Breanna Duerr (Speech and Hearing Science - Spring 2025)

Mentor(s): Inyong Choi
(Communic Sci & Disorders)

Can we find out who's voice cochlear implant users are trying to listen to from their brain signals?

118
5:10-5:55PM
2nd Floor Hallway

Mia Dukle (Biomedical Sciences, Bioinformatics - Spring 2026)

Mentor(s): Hanna Stevens
(Psychiatry)

Effects of Different Prenatal Stress Models on Gene Expression in the Mouse Ventral Forebrain

119
5:10-5:55PM
2nd Floor Hallway

Annika Ellis (Nursing - Spring 2026)

Mentor(s): Wen Liu | Kyu Ri Lee
(Nursing | Nursing)

Profiling Mealtimes Verbal Interactions between Nursing Home Staff and Persons with Dementia

120
5:10-5:55PM
2nd Floor Hallway

Madeline Ephraim (Psychology - Spring 2025)

Mentor(s): Isaac Petersen
(Psychological Brain Sci)

SURF 2025 Program of Presenters

Household Chaos and Parental Supportiveness are Independently Associated with Children's Sustained Attention

121

5:10-5:55PM
2nd Floor Hallway

Rachel Walenceus (Geoscience, Certificate in GIS - Spring 2025)
Mentor(s): Benjamin Swanson | Bradley Cramer
(Earth & Environmental Sci | Earth & Environmental Sci)

Monitoring seasonal variations in the soil health and chemistry at the Ashton Prairie Living Laboratory

122

5:10-5:55PM
2nd Floor Hallway

Melanie Flores (Speech and Hearing Science - Spring 2025)
Mentor(s): Kristi Hendrickson
(Communic Sci & Disorders)

School-Age Bilinguals: A Study of Spoken and Written Word Recognition

123

5:10-5:55PM
2nd Floor Hallway

Rachel Ford (Biology - Spring 2025)
Mentor(s): Andrew Kitchen
(Anthropology)

AVPR1A and Its Potential Effects on Mammalian Understanding of Vocalizations

124

5:10-5:55PM
2nd Floor Hallway

Alayna Gallery (Biochemistry and Molecular Biology & Human Physiology - Spring 2026)
Mentor(s): Kathleen Sluka | Angela Smith
(Phys Therapy & Rehab Sci | Phys Therapy & Rehab Sci)

Signaling Pathways in Spinal Dopamine 1 Receptor Neurons

125

5:10-5:55PM
2nd Floor Hallway

Amukta Gantalamohini (Environmental Policy & Planning - 2025)
Mentor(s): Margaret Carrel
(Geogra&Sustainability Sci)

Urban Heat Inequality: A look into New York City

126

5:10-5:55PM
2nd Floor Hallway

Olivia Schuelka (Psychology and Religious Studies - Spring 2027)
Mentor(s): Brandon Dean
(Religious Studies)

The Shroud of Turin

127

5:10-5:55PM
2nd Floor Hallway

Elizabeth Gross (Neuroscience - Spring 2026)
Mentor(s): Kathleen Sluka | Angela Smith
(Phys Therapy & Rehab Sci | Phys Therapy & Rehab Sci)

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Examination of A11 dopamine neuron activity in the transition to chronic pain

128

5:10-5:55PM
2nd Floor Hallway

Zoe Hettinger (Neuroscience and Biochemistry - Spring 2025)

Mentor(s): Bengi Baran
(Psychological Brain Sci)

The Relationship Between Chronotype and Clinical Symptoms in People with Schizophrenia

129

5:10-5:55PM
2nd Floor Hallway

Trevor Jackson (BA Viola Performance - Spring 2025)

Mentor(s): Jacob Michaelson | Lucas Casten
(Psychiatry | Psychiatry)

Genetic predictors of Mental Health: Comparative Analysis of Machine Learning Algorithms

130

5:10-5:55PM
2nd Floor Hallway

Karena Jensen (Biomedical Engineering and Music Performance - Fall 2026)

Mentor(s): Jason Wilken
(Phys Therapy & Rehab Sci)

Reliability of Force Measurement within the Carbon Fiber Orthosis Proximal Cuff

131

5:10-5:55PM
2nd Floor Hallway

Julia Anderson (Political Science - Religious Studies - Spring 2025)

Mentor(s): Nicholas Martini
(Political Science)

Combating Racial Disparity in Iowa Prisons: A Three Prong Approach

131

5:10-5:55PM
2nd Floor Hallway

Vanessa DeMarco (Economics - Ethics and Public Policy - Political Science - Spring 2026)

Mentor(s): Nicholas Martini
(Political Science)

Combating Racial Disparity in Iowa Prisons: A Three Prong Approach

131

5:10-5:55PM
2nd Floor Hallway

Connor Junkins (Political Science, Enterprise Leadership - Spring 2025)

Mentor(s): Nicholas Martini
(Political Science)

Combating Racial Disparity in Iowa Prisons: A Three Prong Approach

SURF 2025 Program of Presenters

132
5:10-5:55PM
2nd Floor Hallway

Natalie Kehrli (Psychology B.S. - Spring 2025)
Mentor(s): Amanda McCleery
(Psychological Brain Sci)

Exploring Physical Activity Patterns in College Students with Elevated Schizotypal Traits: A Comparison of Self-Report and Sensor Data

133
5:10-5:55PM
2nd Floor Hallway

Grace Koch (Environmental Science - Spring 2026)
Mentor(s): Benjamin Swanson
(Earth & Environmental Sci)

Investigating Relations Between Prairie Flora Species Diversity and Soil Haney Score

134
5:10-5:55PM
2nd Floor Hallway

Kayla Kolpin (Human Physiology - Spring 2025)
Mentor(s): Erin Talbert
(Health & Human Physiology)

MEK inhibitors do not alter muscle cell proliferation

135
5:10-5:55PM
2nd Floor Hallway

Meg Krapfl (Chemistry and Physics - Spring 2025)
Mentor(s): Renee Cole
(Chemistry)

Classroom Discourse: An Analysis of Instructor Discourse Moves

136
5:10-5:55PM
2nd Floor Hallway

Asya Lengel (Chemistry - Spring 2025)
Mentor(s): Lei Geng | Renee Cole
(Chemistry | Chemistry)

Mathematical Modeling of Drug Dissolution Kinetics: New Approach for Outlier Detection and Removal

136
5:10-5:55PM
2nd Floor Hallway

Thi Phan (Biochemistry - Spring 2027)
Mentor(s): Lei Geng | Renee Cole
(Chemistry | Chemistry)

Mathematical Modeling of Drug Dissolution Kinetics: New Approach for Outlier Detection and Removal

137
5:10-5:55PM
2nd Floor Hallway

Yiming Liu (Biology - Spring 2025)
Mentor(s): Georgina Aldridge
(Neurology)

Exploring the convergent effects of co-pathology and dendritic spine loss in neurodegenerative disease

SURF 2025 Program of Presenters

138
5:10-5:55PM
2nd Floor Hallway

Mrithuul Prasath Madan Prasad (Biomedical Sciences B.S., Neuroscience B.S. - Spring 2026)

Mentor(s): Uday Singh
(Neurosci & Pharmacology)

Neuroanatomical and Functional Characteristics of Zona Incerta MC4R Neural Circuit in Metabolic Control

139
5:10-5:55PM
2nd Floor Hallway

Avery Maeder (Human Physiology - Spring 2025)

Mentor(s): Bengi Baran
(Psychological Brain Sci)

Sleep Quality and Mental Health at the Beginning of the Semester as a Predictor of End-of-Semester Academic Achievement in College Freshmen

139
5:10-5:55PM
2nd Floor Hallway

Aditi Tripathy (Biomedical Sciences - Spring 2025)

Mentor(s): Bengi Baran
(Psychological Brain Sci)

Sleep Quality and Mental Health at the Beginning of the Semester as a Predictor of End-of-Semester Academic Achievement in College Freshmen

140
5:10-5:55PM
2nd Floor Hallway

Riley McCoy (Biomedical Sciences - Spring 2027)

Mentor(s): Catherine Marcinkiewicz | Ruixiang Wang
(Neurosci & Pharmacology | Neurosci & Pharmacology)

Tau pathology leads to increased activity of noradrenergic neurons, contributing to early Alzheimer's disease

141
5:10-5:55PM
2nd Floor Hallway

Abbie McLaren (Cinema, Journalism and Mass Communication - Spring 2025)

Mentor(s): Nathan Platte
(Music)

Podcasting as a Method of Film and Music Research

142
5:10-5:55PM
2nd Floor Hallway

Maggie Meehan (Public Health - Spring 2026)

Mentor(s): Shujie Yang | Tianyue Li
(Pathology | Pathology)

Personalizing Chemotherapy for Endometrial Cancer: Beyond the Standard Treatment

143
5:10-5:55PM
2nd Floor Hallway

Oliver Mize (Chemical Engineering - Spring 2026)

Mentor(s): Eric Nuxoll
(Chemical & Biochem Engine)

SURF 2025 Program of Presenters

Thermal shock susceptibility of Staphylococcus aureus biofilms on titanium hip screw plugs

144

5:10-5:55PM
2nd Floor Hallway

Ryan Nagel (Biochemistry - Spring 2025)
Mentor(s): **Ronald Weigel | Colin Kenny**
(Surgery | Surgery)

Investigating the Role of AP-2 α in Melanomagenesis

145

5:10-5:55PM
2nd Floor Hallway

Lauren Geerdes (Human Physiology - Spring 2028)
Mentor(s): **Scott Shaw**
(Chemistry)

Cancer Rate Correlation with Nitrate Concentration in Iowa Public Drinking Water

145

5:10-5:55PM
2nd Floor Hallway

Claire Opdahl (Counseling and Behavioral Health Services, Psychology - Spring 2028)
Mentor(s): **Scott Shaw**
(Chemistry)

Cancer Rate Correlation with Nitrate Concentration in Iowa Public Drinking Water

146

5:10-5:55PM
2nd Floor Hallway

Isaac O'Toole (Biochemistry and Molecular Biology - Spring 2026)
Mentor(s): **Colin Kenny**
(Surgery)

Melanocyte Progenitor Cells are Sensitive to GNAQ-driven Uveal Melanoma

147

5:10-5:55PM
2nd Floor Hallway

Suzi Park (Speech and Hearing Sciences - Spring 2025)
Mentor(s): **Stewart Mccauley**
(Communic Sci & Disorders)

Blocking effects in L2 learning: Evidence from cross-situational word learning

148

5:10-5:55PM
2nd Floor Hallway

Bansari Patel (Biochemistry and Molecular Biology - Spring 2026)
Mentor(s): **Gordon Buchanan**
(Neurology)

Age-Dependent Chemosensitivity in APP/PS1 Mice

149

5:10-5:55PM
2nd Floor Hallway

Ellie Ronnebaum (Psychology - Spring 2025)
Mentor(s): **Bengi Baran**
(Psychological Brain Sci)

SURF 2025 Program of Presenters

Metabolic problems, night-eating and sleep quality in people living with schizophrenia

150

5:10-5:55PM
2nd Floor Hallway

Mason Cook (Psychology -)

Mentor(s): Cathleen Moore | Aditya Prakash
(Psychological Brain Sci | Psychological Brain Sci)

Negative Search Templates in Visual Working Memory and Visual Long-Term Memory

150

5:10-5:55PM
2nd Floor Hallway

Emily Esch (Psychology -)

Mentor(s): Cathleen Moore | Aditya Prakash
(Psychological Brain Sci | Psychological Brain Sci)

Negative Search Templates in Visual Working Memory and Visual Long-Term Memory

150

5:10-5:55PM
2nd Floor Hallway

Zoe Greenwood (Psychology and Philosophy - Spring 2025)

Mentor(s): Cathleen Moore | Aditya Prakash
(Psychological Brain Sci | Psychological Brain Sci)

Negative Search Templates in Visual Working Memory and Visual Long-Term Memory

150

5:10-5:55PM
2nd Floor Hallway

Eva Kumsher (Psychology -)

Mentor(s): Cathleen Moore | Aditya Prakash
(Psychological Brain Sci | Psychological Brain Sci)

Negative Search Templates in Visual Working Memory and Visual Long-Term Memory

151

5:10-5:55PM
2nd Floor Hallway

Bianca Sponseller (Microbiology and German - Spring 2025)

Mentor(s): Wendy Maury
(Microbiology & Immunology)

Identifying the mechanism of Ebola virus inhibition mediated by a novel group of small molecule inhibitors

152

5:10-5:55PM
2nd Floor Hallway

Brady Bird (Environmental Sciences (Environmental Bioscience) BS - Fall 2025)

Mentor(s): Benjamin Swanson | Jeffrey Dorale
(Earth & Environmental Sci | Earth & Environmental Sci)

SURF 2025 Program of Presenters

A Tale of Ten Trees: Analyzing Tree Species Diversity and Distribution Around Cardinal Creek

152

5:10-5:55PM
2nd Floor Hallway

Abbey Stoddard (Environmental Sciences (Environmental Bioscience) BS - Spring 2025)

Mentor(s): Benjamin Swanson | Jeffrey Dorale
(Earth & Environmental Sci | Earth & Environmental Sci)

A Tale of Ten Trees: Analyzing Tree Species Diversity and Distribution Around Cardinal Creek

153

5:10-5:55PM
2nd Floor Hallway

Jason Babcock (Anatomy and Physiology - Spring 2026)

Mentor(s): Amy Ryan
(Anatomy & Cell Biology)

Structure-Function Relationships in Mucociliary Clearance: Impact of Co-Culturing CCDC40 Mutant and Wild-Type Airway Epithelial Cells In Vitro

153

5:10-5:55PM
2nd Floor Hallway

Beck Fitzpatrick (Microbiology - Spring 2026)

Mentor(s): Amy Ryan
(Anatomy & Cell Biology)

Structure-Function Relationships in Mucociliary Clearance: Impact of Co-Culturing CCDC40 Mutant and Wild-Type Airway Epithelial Cells In Vitro

153

5:10-5:55PM
2nd Floor Hallway

Brett Wineinger (Biomedical Sciences - Spring 2026)

Mentor(s): Amy Ryan
(Anatomy & Cell Biology)

Structure-Function Relationships in Mucociliary Clearance: Impact of Co-Culturing CCDC40 Mutant and Wild-Type Airway Epithelial Cells In Vitro

154

5:10-5:55PM
2nd Floor Hallway

Ellie Wojcikowski (Neuroscience - Spring 2026)

Mentor(s): Amanda McCleery
(Psychological Brain Sci)

Heartbeat-Evoked Potentials in Schizophrenia

155

5:10-5:55PM
2nd Floor Hallway

Daniela Pintor-Mendoza (Political Science and International Relations - Spring 2027)

Mentor(s): Julianna Pacheco | Nicole Novak
(Political Science | Community Behavioral Health)

The Iowa Vital Voices Project: Designing participatory action research to promote Latino civic engagement, political voice and community health

SURF 2025 Program of Presenters

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5:10-5:55PM
2nd Floor Hallway

Brenda Ramirez (Political Science - Spring 2025)
Mentor(s): Julianna Pacheco | Nicole Novak
(Political Science | Community Behavioral Health)

The Iowa Vital Voices Project: Designing participatory action research to promote Latino civic engagement, political voice and community health

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5:10-5:55PM
UCC-2520D

Jessica Alberhasky (Neuroscience - Spring 2026)
Mentor(s): Catherine Marcinkiewicz
(Neurosci & Pharmacology)

Spatial transcriptomics to identify genetic mediators of neuronal dysfunction in Alzheimer's disease

156
5:10-5:55PM
UCC-2520D

Aishath Ismail (Biochemical Engineering and Neuroscience - Spring 2026)
Mentor(s): Catherine Marcinkiewicz
(Neurosci & Pharmacology)

Spatial transcriptomics to identify genetic mediators of neuronal dysfunction in Alzheimer's disease

157
5:10-5:55PM
UCC-2520D

Julia Correia (3D Design BFA and Music BA (violin) - Fall 2027)
Mentor(s): Monica Correia
(Art, Art History & Design)

Seamless 3-Dimensional Woven Forms with Sustainable Materials

157
5:10-5:55PM
UCC-2520D

Tara Joiner (3D Design BFA and Minor in News and Media Literacy - Spring 2026)
Mentor(s): Monica Correia
(Art, Art History & Design)

Seamless 3-Dimensional Woven Forms with Sustainable Materials

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5:10-5:55PM
UCC-2520D

Lucy Dunning (Religious studies, Spanish - Spring 2025)
Mentor(s): Brandon Dean
(Religious Studies)

Christian Mind

159
5:10-5:55PM
UCC-2520D

Talula Monk (Biology (BS), Environmental Science (BA) - Spring 2026)
Mentor(s): Heather Sander | Rachel Larson
(Geography & Sustainability Sci | Geography & Sustainability Sci)

Urbanization and Deer Mice Health: Investigating Parasite Load and Body Condition

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5:10-5:55PM
UCC-2520D

Jacob Osten (Bachelor of Science in Nursing - Fall 2025)
Mentor(s): **Anna Krupp | Jaewon Bae**
(Nursing | Nursing)

Workload Intensity Variation Across ICU Clinician Roles and Unit Types

161
5:10-5:55PM
UCC-2520D

Sadie Richter (Geoscience - Summer 2025)
Mentor(s):
()

Feldspar on Mars through the eye of a visible near-infrared spectrometer.

162
5:10-5:55PM
UCC-2520D

Claire Stephenson (Nursing - Spring 2025)
Mentor(s):
()

Evaluating the Role of an RN Facilitator in Enhancing ICU Liberation Bundle Implementation in the CVIC: A Multi-Site Trial Analysis

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5:10-5:55PM
UCC-2520D

Ellen Yandel (English and Creative Writing - Spring 2025)
Mentor(s):
()

The Phoenix and Turtle: Metrical Binaries in Shakespeare's Most Puzzling Poem

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5:10-5:55PM
UCC-2520D

Rebecca Flint (Biology - Spring 2028)
Mentor(s):
()

Impact of Heat on Physical and Physiological Characteristics of Candida albicans Biofilms

164
5:10-5:55PM
UCC-2520D

Miodrag Krstovic (Biomedical Engineering - Spring 2025)
Mentor(s):
()

Impact of Heat on Physical and Physiological Characteristics of Candida albicans Biofilms

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5:10-5:55PM
UCC-2520D

Rami Mayasa (Biomedical Sciences - Spring 2025)
Mentor(s):
()

Impact of Heat on Physical and Physiological Characteristics of Candida albicans Biofilms

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