2014 Undergraduate Symposium Presenters

Student Keynote Speakers

Katy Williams, Theatre

*The Myth of Pegasus Puppetry Project*

Dr. Anne Penner and Dr. Steven McDonald

Michael Maloof, Finance, Spanish and Hannah Merten, International Studies & Spanish

*Detroit and Bilbao: Comparative Stories of Urban Decline and Rebirth*

Dr. Andrew Goetz

Joshua Stout, Sociology & Criminology

*Sandy Hook and the Media: How a Nation Grieves*

Dr. Paul Colomy

Joe Tripp, Justin Hollenbeck, and Patrick Davenport, Mechanical Engineering and Materials Science

*Thumb Prosthesis*

Dr. Peter Laz
Poster Presenters

Mohammed Agha
Lydia Bower, Spencer Currie
Engineering
Wheelchair Posture Sensory System
Dr. Bradley Davidson, Dr. Jun Zhang, Dr. Mohammad Mahoor

Saad AlJaloud
Doug Mackenzie, Jessica Morton
SECS
The Automated Home Garden
Dr. Kimon Valavanis

Samuel Allen
Electrical Engineering
ASME UAV Design
Dr. Ronald DeLyser

Julia Bowman
Geography
Water and Fracking in Colorado
Dr. J. Michael Daniels

Blake Burwell
Kyle Chynoweth, Andy Cromer, Erin Galiger
Engineering
Remote Water Pump Monitoring System
Dr. Peter Laz

Sean Campbell
School of Music
Hidden Sounds
Dr. Arthur Bouton

Kyle Cavedon
Chemistry and Biochemistry
Bronsted Acid Catalysis
Dr. Bryan Cowen

2014 Undergraduate Research Symposium
Ross Cutcliffe
Molecular Biology
Tick-derived Ixolaris and its Mitigation of Coagulant-dependent Tumorigenesis
Dr. Joseph Angleson

David Cain Day
History
Faith and Doubt in Anatolia: Reconciling Uncertainty in a Cold, Cold World
Dr. Jonathan Sciarcon

Wesley Devore
Music
Spectral Music: Using Sound Analysis and Computer Programming in Compositions Based On Acoustics
Dr. Jack Sheinbaum

Rodolfo Diaz
Sociology
Not Apart of the Club: Nightclub Consumers Crossing Over Marketing Niche Boundaries
Dr. Lisa Pasko

Joseph Dingle
Sociology and Criminology
Individual-level and Contextual Predictors of U.S. Recidivism
Dr. Jeffrey Lin

Alyssa Evans
Psychology
Actor and Partner Effects on Relational Styles with Same and Different Romantic Partners in Emerging Adulthood
Dr. Wyndol Furman

Alec Feuerbach
Biochemistry
Lipid Sorting Based on Membrane Curvature
Dr. Michelle Knowles

Joey Fisher
Biology
The Effects of Female Preference on Phenotypic Deviation in Threespine Stickleback Populations
Dr. Robin Tinghitella
Kayla Frazee  
Sociology/Criminology  
*Mass Shootings in a Post-Columbine Society: A Media Content Analysis*  
Dr. Jeffrey Lin

Sarah Fukami  
School of Art and Art History  
*Ephemeral/Perpetual Memory*  
Dr. Deborah Howard

Deshae Gehr  
Biology  
*Analyzing the interaction between mouse MRAP2 and Xenopus tropicalis melanocortin receptors that are co-expressed in Chinese Hamster Ovary cells*  
Dr. Robert Dores

Jessica Gertler  
Psychology  
*Aggressive Faces and Violent Crimes: The Role of Defendant Emotional Facial Structure in Judgments of Guilt*  
Dr. Max Weisbuch

Lanna Giauque  
Geography and the Environment  
*Programming Success: Vehicle Idle Reduction in Schools*  
Dr. Michael Kerwin

Jacob Gold  
Physics  
*Synthesis and Thermal Dynamics of Semiconductor Quantum Dots*  
Dr. Mark Siemens

Elyssa Goldstein  
Biochemistry  
*Porcine Respiratory and Reproductive Syndrome Virus*  
Dr. Scott Pegan

Antonio Gonzalez  
Sean Sweeney, Charles Perkins, Haolin Xu  
Ritchie School of Engineering and Computer Science  
*A Smartphone Spectrofluorometer for Environmental Research and Home Health Monitoring*  
Dr. James Wilson, Dr. Alex Huffman
Marie Gosselin  
Chemistry and Biochemistry  
*Method Development for Offline Quantification of Airborne Fungal Spores using Molecular Tracers via GC/MS and LC/MS*  
Dr. Alex Huffman

Mary-Louise Hathorn  
Biology  
*Phenology of Climate Change*  
Dr. Anna Sher

Monica Heilman  
Sociology  
*“What Are You?”: Navigating Multiracial Identity in a Racially-Rigid Society*  
Dr. Lisa Martinez

Justin Hollenbeck  
Mechanical Engineering  
*Statistical Shape and Alignment Modeling of the Lumbar Spine*  
Dr. Peter Laz and Dr. Paul Rullkoetter  
And  
*Design of a Prosthesis System for Thumb Amputees*  
Dr. Peter Laz and Dr. Brad Davidson

Ryan Holly  
Biology  
*The Role of RalA in Furrow Formation During Drosophila Embryonic Development*  
Dr. J. Todd Blankenship

Ben Horblit  
Political Science  
*Immigration and Opinion on Welfare in Western Democracies: An Experimental Investigation of Immigration Priming on Support for Welfare Programs in the United States and Germany*  
Dr. Peter Hanson

Megan Hosking  
Psychology and Biology  
*Reward Processing In Depressed Patients and Eating Disorder Symptomatology*  
Dr. Jeremy Reynolds

2014 Undergraduate Research Symposium
Elizabeth Ignowski  
Biology  
*The Unique Neuroprotective Effects of Rosmarinic and Carnosic Acids On Primary Cerebellar Granule Neurons*  
Dr. Daniel Linseman  

Camille Jasensky  
Music  
*The Effects of Pelvic Floor on Voice Production*  
Dr. Ken Cox  

Thomas Jennings  
Music  
*A Fresh Start For Guitar MIDI Synthesis In Performance and Composition*  
Dr. Lynn Baker  

Colin Jorgensen  
Biology, BS; Music, BA  
*Intracellular and Extracellular Regulation of Ciliogenesis in the Developing Sea Urchin Blastula*  
Dr. Dennis Barrett  

Heather Kegel  
Studio Art (School of Art and Art History)  
*World War II Veteran Portraits*  
Dr. Roddy MacInnes  

Kristin Kerney  
Psychology  
*Adolescent Emotional Reactivity Linked to Deficits in Executive Functioning*  
Dr. Stephen Shirk  

Hannah Koschnitzke  
Sociology  
*Choosing Virginity: How Christian women define and maintain abstinent identities*  
Dr. Jennifer Reich  

Kelly Lavin  
Psychology  
*The Effects of Exposure and Reward on Facial Mimicry in Autism*  
Dr. Daniel N. McIntosh
Erin Lee
Psychology
*Subscription to Stereotypes: Representations of Gender in Popular Magazines*
Dr. Max Weisbuch

Stephen Lee
Biochemistry
*Characterization of Class II Fructose 1,6-bisphosphate Aldolase from Methicillin-resistant Staphylococcus aureus*
Dr. Scott Pegan

Maeve Leslie
Studio Art
*In Place, Out of Time*
Dr. Roddy MacInnes

Joseph Lewis
Computer Science
*A Time Series Data Storage Benchmark*
Dr. Matthew J Rutherford

Joseph Lewis
Computer Science
*A Transpiler for Pipelined Multi-System Software Stacks*
Dr. Matthew J Rutherford

Nancy Lien
Chemistry
*Supercritical Carbon dioxide in the preparation of salicylic acid*
Dr. Balasingam Murugaverl

Faith Lierheimer
Biology
*Mate choice when quality and quantity of available mates varies*
Dr. Robin Tinghitella

Ryan Lumpkin
Chemistry and Biochemistry
*The Role of Primary Structural Features in ERVE vOTU’s Enzymatic Specificity*
Dr. Scott Pegan
Evan Manning  
Biological Sciences  
*Amyloid beta and APP intracellular domain activate distinct mitochondrial death pathways in HT22 hippocampal cells*  
Dr. Daniel Linseman

Selina Martinez  
Biology  
*Medicinal Plant Chemistry of Achillea millefolium*  
Dr. Anna Sher

Nadira Matin  
Biochemistry  
*Impact of Cofactors on Stability and Growth of Tau Fibrils*  
Dr. Martin Margittai

Tyler Maydew  
Ritchie School of Engineering and Computer Science  
*Viability of Solar Power Deployment on DU's Campus*  
Dr. Amin Khodaei

Malea McGimsey  
Psychology  
*Effects of Stroop interference on emotional inferences and behavioral prediction*  
Dr. Max Weisbuch

James Mobley  
Mechanical Engineering  
*Impact Testing Device*  
Dr. Maciej Kumosa

Brittany Morris  
Psychology  
*The Construct Validity of DSM-5 Writing Disorder*  
Dr. Bruce Pennington

Emma Murugaverl  
Chemistry  
*The Effects of Phase Transfer Catalysts on the Performance and Efficiency of Thin-Film Composite Polyamide Reverse Osmosis Membranes*  
Dr. Balasingam Murugaverl
Michael Noller
Biology
The Isolation and Analysis of 5' Promoter Regions of CR1 Clones from Waterfowl
Dr. Thomas Quinn

Kristen O’Connell
Psychology
Effect of the Father-Daughter Relationship on the Romantic Relationship in Adolescent Female Offenders
Dr. Julia Dmitrieva

Siena Pinney
Film Studies
Anon it Moves: A documentary about interpreting Shakespeare in modern times
Dr. Sheila Schroeder

Christopher Racz
Physics
Heat-Pipe Oven for Multidimensional Spectroscopy of Atomic Vapors
Dr. Mark Siemens

Shannon Reimers
History
War and Supremacy: The factors that brought Israel to the Madrid Conference in 1991
Dr. Jonathan Sciaron

Ian Roche
Biology
Research of Human C-Reactive Protein
Dr. Michelle Knowles

Delaney Roney
Biology
Climate Change Effects on Blueberry Phenology
Dr. Anna Sher

Nicki Schmitt
Geography
The Green Alliance: A Case Study in the Alternative Organic Standards of Beijing’s Urban Sub-Culture
Dr. Michael Daniels
Rachael Scoggins  
Chemistry  
*Fungal Spore Growth for Bioareosol Instrument Characterization*  
Dr. Alex Huffman

Sara Shahid  
Biology  
*Mutations in the Purine Synthesis*  
Dr. David Patterson

Andrew Shovelton  
Chris Streib  
Engineering  
*Fire Suppression System*  
Dr. Ronald DeLyser

Jacqueline Smith  
Biology  
*Abortion Practices in the Northeast of India*  
Dr. Matthew Taylor

Katie Stone  
Psychology  
*Cesarean Section versus Vaginal Delivery: Exploring Physiological Differences in Infants*  
Dr. Elysia Davis

Emily Thompson  
Molecular Biology  
*Exploring Asthma – The Role of Environmental and Endogenous Triggers in IL-33 Production and ST2 Expression*  
Dr. Robert Dores

Bergen Tjossem  
Environmental Science  
*Is Predation of Herbivorous Caterpillars Greater Along a Habitat Edge or in the Habitat Core?*  
Dr. Shannon M. Murphy

Maggie Waldner  
International Studies  
*Neoliberalism in Education in the Southern Cone*  
Dr. Sasha Breger Bush
Leslee Warren
Biological Sciences - Molecular Biology
*Sequencing and Analysis of CR1 Clones in Cape Barren Goose*
Dr. Tom Quinn

Ashton Webberley
Electrical and Computer Engineering
*An Intelligent Medical Mirror to Track Human Vital Signs*
Dr. Mohammad Mahoor

Andrea Westinicky
Psychology
*Race-Based Decisions to Shoot: How Televised Racism Influences Viewer Aggression*
Dr. Max Weisbuch

Kyra Whitworth
Chemistry
*The Fate of Atmospheric Iron when Deposited into the Ocean*
Dr. Brian Majestic

Jordan Zinsli
Ashton Webberley, William Pickard
School of Engineering and Computer Science
*Brain Computer Interface*
Dr. Jun Zhang