**Poster Session I**
Saturday, October 31
8:30-9:45 AM
Atrium

P-01-01
Cyd Marie Castro Rojas, The University of Chicago
**Co-Author(s):** Fiebig, Aretha, Crosson, Sean
Specificity of Chromosomal Toxin-Antitoxin Complexes in Caulobacter crescentus.

P-01-02
Michael Dyle, Grinnell College
**Co-Author(s):** DeRidder, Ben
Inducible Expression of Rubisco Activase Protein and mRNA in a Transgenic *Arabidopsis* System

P-01-03
Matthew Craig, Augustana College
**Co-Author(s):** Lepore, Jessie
The Effects of Duckweed Removal on the Biogeochemistry of an Urban Riparian Marsh

P-01-04
Scott Sapp, Knox College
**Co-Author(s):** Allison, Stuart, Knox College, Biology
A Survey of Arthropod Diversity on Goldenrod

P-01-05
Yan Wang, Washington University
**Co-Author(s):** P. YAN, A. KRAFT, Q. XIAO, M. Pekny, J.-M. LEE
Activated Astrocytes Modulate Microglial Activation in APP/PS1 Mice

P-01-06
Samantha Miller, Carthage College
**Co-Author(s):** Radwanski, Elaine, Carthage College, Biology
Initiating a long-term monitoring program of invasive riparian plants in Kenosha County, Wisconsin

P-01-07
James Cheng, Colorado College
**Co-Author(s):** Chan, Emily, Colorado College, Psychology
LGBT Organizations as Stronger Predictor of Campus Climate Satisfaction than Positive Attitudes of LGBT Issues

P-01-08
Katherine Linstrand, Gustavus Adolphus College
**Co-Author(s):** Bedekovic, Tibor & Isaya, Grazia
Effect of ISCU Mutations on Protein Interaction and Iron-Sulfur Cluster Assembly
P-01-09
Laura Bond, St. Olaf College
**Co-Author(s):** Nicole Becker, Ph.D., Jim Maher, Ph.D.
DNA loops in bacteria: How tightly can DNA be bent?

P-01-10
Radostin Penchev, Macalester College
**Co-Author(s):** Benjamin D Humphreys, MD Ph.D, and Steven Fabian, MD
A role for Hedgehog Signaling in Perivascular Fibroblast Differentiation During Kidney Injury

P-01-11
Zhaoying Xu, Grinnell College
**Co-Author(s):** Schneider, Judsen; Miller, David M.
Characterization of blr-9, a New Unc-4 Suppressor Gene Responsible for Neuronal Wiring in Caenorhabditis elegans

P-01-12
Spencer Campbell, Augustana College
**Co-Author(s):** Corts, Daniel
Emotional Valence of Metaphor In Political Satire

P-01-13
Akina Nagata, Knox College
**Co-Author(s):** Jez, Joseph and Lee, Soon Goo
Study on Plasmodium falciparum Phosphoethanolamine N-methyltransferase (PfPMT)

P-01-14
Adam Salazar, Washington University
**Co-Author(s):** Cannon, Carolyn
Identification of PA3920 as the primary sil-like silver resistance determinant in Pseudomonas aeruginosa, MPAO1

P-01-15
Marie Pichler, Carthage College
**Co-Author(s):** Hegrenes, Scott
Distribution and Dispersal of Aquatic Invasive Species in Kenosha County, Wisconsin

P-01-16
Amy Fleig, Colorado College
**Co-Author(s):** Chan, Emily
Impact of Undergraduate Students' Financial Situation on General and Social Satisfaction

P-01-17
Linnea Schmidt, Gustavus Adolphus College
**Co-Author(s):** Guanjing Hu, Jonathan Wendel
Genetic Analysis of Seed Storage Proteins in Gossypium

P-01-18
Allison Christiaansen, St. Olaf College
**Co-Author(s):** Freedberg, Steve, St. Olaf College
Investigation of 5' and 3' UTR elements in dengue virus RNA replication
P-01-19
Dogukan Dalgalan, Macalester College
Co-Author(s): Wilson, Jean M.
Investigating the Interaction Between Rab14 and aPKC to Better Characterize Apical Targeting in Epithelial Cells

P-01-20
Lindsay Hunter, Grinnell College
Co-Author(s): VanDunk, Cassandra; Ling, Guang Yi; Gray, Paul A
Expression of Bmal1, Lhx1, RORA, Six3, Six6 and VIP in the olfactory bulb and retina

P-01-21
Allison Johnson, St. Olaf College
Co-Author(s): Freedberg, Steve
Among-colony genetic differentiation and group selection in the cliff swallow, Petrochelidon phyrronota

P-01-22
Leonor Añó, Macalester College
Co-Author(s): Chatterjea, Devavani
Immune Semaphorin Expression in the Thymus and Bone Marrow of the C57BL/6 Mice

P-01-23
Zheng Su, Grinnell College
Co-Author(s): Lindgren, Clark
Prostaglandin E2 glycerol ester, a main COX-2 oxidative product, enhances synaptic transmission at the lizard neuromuscular junction
P-02-01
Ivy Hsieh, Grinnell College
Co-Author(s): Trimmer, Elizabeth
Proton Uptake in the Oxidative Half Reaction of MTHFR from E. coli

P-02-02
Josef Goldufsky, Beloit College
Co-Author(s): Nadine Lerret, Amanda L. Marzo
By the Numbers: the efficacy of adoptively transferred self-antigen-specific CD8+ T cells in rejecting mesothelioma tumor

P-02-03
Nicholis Fox, Augustana College
Co-Presenter: Corts, Daniel, Augustana College, Psychology
The testing and generation effects: Can they work together?

P-02-04
Pascal Schaefer, Washington University
Co-Author(s): Lee, Elvis
Imaging of Mechanical Tractions and Their Effect on Focal Adhesion Dynamics in 3D

P-02-05
Scolastica Njoroge, Carthage College
Co-Author(s): Choffnes, Dan, Carthage College, Biology
Endocrine Disrupting Chemical Exposed Xenopus laevis

P-02-06
Adrienne Wood, Colorado College
Co-Author(s): Chan, Emily, Colorado College, Psychology
Alcohol Consumption and its Effects on Social Belonging

P-02-07
Kimberly Sukhum, Gustavus Adolphus College
Co-Author(s): Ponsawakul, Pagkapol Y.; Green, Carla B.; Marz, Karla E
Altered activity and nuclear localization of hybrids of mCRY1 and mCRY2, circadian clock

P-02-08
Sara Johnson, St. Olaf College
Co-Author(s): Jelinek, Diane; Mihalckik, Stephen
Characterization of the BCMA and TACI Promoter Structure
P-02-10
Arthur Sillah, Macalester College
Co-Author(s): Schwartz, Robert MD
Left Atrium in Hypertrophic Cardiomyopathy (HCM): Determination of size and function From MRIs.

P-02-11
Julie Stutzbach, Beloit College
Co-Author(s): Salus, Melinda; Eulgem, Thomas
Identification and Characterization of Small Molecules that Induce Disease Resistance in Arabidopsis Thaliana

P-02-12
Samuel Peterson, Grinnell College
Co-Author(s): Rempel-Clower, Nancy
Amygdala projections terminating in the orbitofrontal cortex of the rat display laminar patterns suggesting functionality

P-02-13
Bridgette Martinak, Washington University
Co-Author(s): Maurer, Joshua, Washington University, Chemistry
Cloning Ephrin Genes Using Ligase-Free Methods

P-02-14
Lori Kollath, Carthage College
Co-Author(s): Radwanski, Elaine
Determination of Chromosome Number in Alliaria Petiolata

P-02-15
Daniela Lopez-Morales, Colorado College
Co-Author(s): Huang, Nancy
Selective RNAi Screen of C. elegans for Embryonic Lethality and Characterization of Arrested Embryos

P-02-16
Karen Bieraugel, St. Olaf College
Co-Author(s): Huiras, Seth; Pellino, Janice
Characterization of C0293: a small, non-coding RNA from Escherichia coli

P-02-17
Solaire Finkenstaedt-Quinn, Macalester College
Co-Author(s): Payne, Lab
Functionalization of Nanoparticles for Cellular Uptake

P-02-18
Tianqi Zhang, Grinnell College
Co-Author(s): Trimmer, Elizabeth, Grinnell College, Chemistry
Model Studies of Formaldehyde (CH2O) and Tetrahydrofolate (H4folate) Nonenzymatic Conversion to 5, 10-methylenetetrahydrofolate (CH2-H4folate)
P-02-19
Alejandro Akrouh, Washington University
Co-Author(s): Harley T. Kurata; Joseph C. Koster; Karen Lochner; Colin G. Nichols
Novel Mutation in Pancreatic KATP Channels Leads to Inactivation-Induced Congenital Hyperinsulinism

P-02-20
Amanda Eigner, Carthage College
Co-Author(s): Adler, Lynn
Direct and Indirect Impacts of Florivory on Butternut Squash Reproduction

P-02-21
Joshua Davendonis, Beloit College
Co-Author(s): Menke, Sean, North Carolina State University, Entomology and Biology
Protection at a price? Ant interactions with pollinators on the aspen sunflower (Helianthella quinquenervis)

P-02-22
Jessica Olson, Colorado College
Co-Author(s): Huang, Nancy
Identification of genes required for cell differentiation and translational regulation in the Caenorhabditis elegans embryo

P-02-23
Shahid Jaffer, St. Olaf College
Co-Author(s): Springer, Patricia
PENNYWISE Negatively Regulates LATERAL ORGAN FUSION1 Expression within the Shoot Apical Meristem and Developing Fruit in Arabidopsis thaliana.

P-02-24
Emil Mellgrin, Macalester College
Co-Author(s): Calderone, Christopher
Characterization of Enzymes Involved in Biosynthesis of the Hydroxamate-Containing Siderophore Triacetylfusarinine C in Aspergillus Nidulans
**ORAL SESSION I**
**SATURDAY, OCTOBER 31**
**9:45-11:15 AM**
**CONNOR AUDITORIUM**

**O-01-01**
Yanwen Xu, Grinnell College
**Co-Author(s):** Hershey, Tamara PhD., Washington University School of Medicine in St. Louis, Psychiatry
**Mood Response to STN Deep Brain Stimulation in Parkinson's Disease**

**O-01-02**
Joshua Morris, Washington University
**Co-Authors:** Green, Leonard and Myerson, Joel
**Similarities and differences between the discounting of delayed and probabilistic rewards**

**O-01-03**
Sven Steen, Augustana College
**Co-Author(s):** Shinn, Eileen, University of Texas, M.D. Anderson Cancer Center, Behavior Science
**The effects of a swallowing exercise regimen on long-term swallowing function in head & neck cancer Patients**

**O-01-04**
Patrick Rich, Grinnell College
**Co-Author(s):** Ances, Beau. Thomas, Jewell
**Functional Connectivity and Psychometrics as Early Markers for Alzheimer's Disease**

**O-01-05**
Corrine Butzen, Knox College
**Co-Author(s):** Templeton, Jennifer
**Examining the bottlenose dolphins' interpretation of human given social cues as a function of age**
ORAL SESSION II
SATURDAY, OCTOBER 31
9:45-11:15 AM
HOLDEN AUDITORIUM

O-02-01
Han Yi, Colorado College
Co-Author(s): Laniohan, Nicole; Nguyen, Nguyen; Holmes, Whitney
The effects of oxidative stress on *Vibrio fischeri*

O-02-02
Sarah Kosmicki, Knox College
Co-Author(s): Schwartzman, Peter
Factors Influencing Invasibility at Blackthorn Hill Nature Preserve

O-02-03
Nguyen Nguyen, Colorado College
Co-Author(s): Lostroh, Phoebe; Laniohan, Nicole; Yi, Han; Holmes, Whitney; Sorrick, Cindy
Oxidative and Nitrosative Stress on Vibrio Fisheri

O-02-04
Katherine Geist, Beloit College
Co-Author(s): Parchman, Thomas L.; Buerkle, C. Alex; Grahnen, Johan A.; Benkman, Craig W.
454 transcriptome sequencing in an ecologically important tree species: assembly, annotation, and marker discovery
ORAL SESSION III
SATURDAY, OCTOBER 31
9:45-11:15 AM
FLTC ROOM 214

O-03-01
Dana Watt, Carthage College
Co-Author(s): Buchanan, James
The hyperpolarization-activated inward current and spinal cord-generated cyclic locomotion

O-03-02
Adam Eltorai, Washington University
Co-Author(s): Kim, Jungsu; Holtzman, David
APOE ANTIBODY AS A MEANS FOR REDUCING AMYLOID PLAQUE DEPOSITION IN A MOUSE MODEL OF ALZHEIMER'S DISEASE

O-03-03
Kevin Dalton, The University of Chicago
Co-Author(s): Crosson, Sean
The Crystal Structure of ParDE1 from /C. crescentus: /toxin-antitoxin recognition in the ParDE family.

O-03-04
Alexander Winter, Lawrence University
Co-Author(s): Gong, Mei and Dickson, Kim
Engineering oxidation-resistant cysteine-free ribonuclease inhibitor

O-03-05
Dylan McLaughlin, Washington University
Co-Author(s): Rogers , Stephen1, and Doctor Allan
NITROSOTHIOLS REGULATE RED BLOOD CELL ANITOXIDANT DEFENSE
ORAL SESSION IV
SATURDAY, OCTOBER 31
2:00-3:30 PM
CONNOR AUDITORIUM

O-04-01
Yedda Li, Washington University
Co-Author(s): Cahan, Patrick; Izumi, Masayo; Graubert, Timothy A.
Caspase-9: A Candidate Susceptibility Factor for Murine Alkylator-Induced Leukemia

O-04-02
Shirley Bradley, Hope College
Co-Author(s): Burnatowska-Hledin, Maria,
Antiproliferative effect of VACM-1/cul5 is regulated by its posttranslational phosphorylation by PKA
And by neddylation

O-04-03
Vanessa Kleckner, St. Olaf College
Co-Author(s): Ely, Bert
CYP1A1 and IL4 Intron 3: Effects on Breast Cancer Aggressiveness

O-04-04
Elizabeth Wanous, St. Olaf College
Co-Author(s): Johnson, Rebecca; Evans, Rickie; Egland, Kristi
Characterization of LRP10, QSOX1, and ST14: MAPcL Genes that Are Highly Expressed in Breast Tumors
ORAL SESSION V
SATURDAY, OCTOBER 31
2:00-3:30 PM
HOLDEN AUDITORIUM

O-05-01
Allyse Hellmich, Grinnell College
Co-Author(s): Hinsa-Leasure, Shannon, Grinnell College, Biology
Use of molecular methods to resolve taxonomic status and unknown pedigrees in a captive macaw Population

O-05-02
Sarah Dunn, Beloit College
Co-Author(s): Carson, John
Identification of a Transport Element in FMRP mRNA

O-05-03
Lu Yu, Lawrence University
Co-Author(s): Lange, Amy
Exploring the Role of Daf-19A in Regulating Synaptic Function Maintenance

O-05-04
Jennifer Bickle, Carthage College
Co-Author(s): Choffnes, Dan, May, Sara; Escobar, Kristiena
The Combinatory effects of endocrine disruptors on Xenopus laevis development