# Student as Scholar

23RD ANNUAL UNDERGRADUATE RESEARCH FORUM







# Message from the President and Dr. Crawford

Welcome to the 2017 Miami University Undergraduate Research Forum! We hope you are as excited as we are to participate in this celebration of research and inquiry. This program is your guide to the more than 350 projects being presented by more than 700 undergraduate researchers today.

In designing and implementing studies, analyzing data, and presenting results, these students have worked to move beyond just an idea – becoming innovators, collaborators, and creators. They are a part of a community of scholars that includes their faculty mentors, and the more than 1500 additional undergraduates who worked with professors on funded research this year. Students as scholars and creators of knowledge speak to an essential quality of the Miami Experience.

We invite you to connect with this community by talking with the presenters today. Ask them meaningful questions – not just about their results, but also about the process they went through to achieve them. As valuable as results can be, it's often the process that illuminates the path to innovation and true learning.

In its 23rd year, this Forum is the premier event celebrating independent inquiry by undergraduate students at Miami University. We offer our congratulations to this cohort of the Miami University Undergraduate Research Forum presenters, and we extend our sincere thanks to the students, faculty, and staff whose dedication and passion allow us to celebrate here today.

Gregory Planton Kenare Krawford

We are so proud. Enjoy!

Love and Honor,

### Contact Information

#### ORU

Office of Research for Undergraduates

P: 513-529-2455

122 King Library

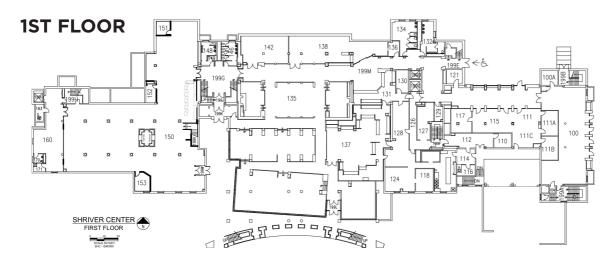
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Greg and Renate Crawford

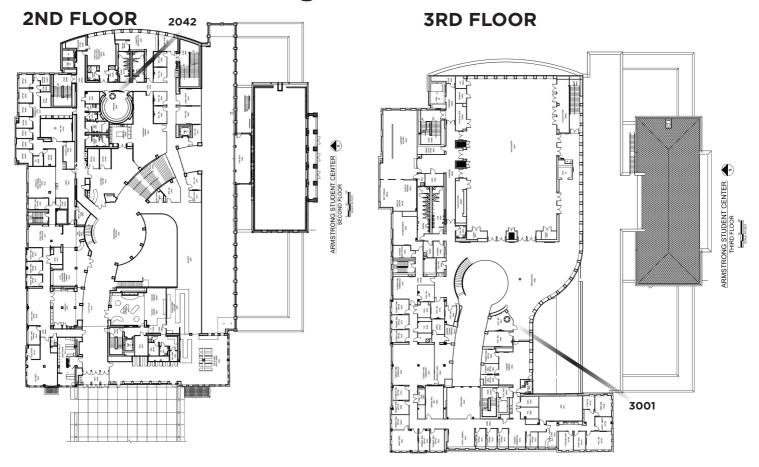
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## **Shriver Center Floor Plans**



## **Armstrong Center Floor Plans**



### **Undergraduate Research Forum 2017 Sponsors**

Graduate School and Office for the Advancement of Research and Scholarship
Office of Research for Undergraduates
Provost and President



## MIAMI UNIVERSITY 23<sup>RD</sup> ANNUAL UNDERGRADUATE RESEARCH FORUM

## Schedule of Events

APRIL 26, 2017

### Oral Presentations - Morning Sessions I, II, III

Session No.	Session Duration	Room	Room	Room
Session I	9:00 a.m. to 9:45 a.m.	ASC-2042	ASC-3001	ASC-3056B Pavilion
Session II	10:00 a.m. to 10:45 a.m.	ASC-2042	ASC-3001	ASC-3056B Pavilion
Session III	11:00 a.m. to 11:45 a.m.	ASC-2042	ASC-3001	ASC-3056B Pavilion

#### Luncheon

Heritage Room 11:45 a.m. to 1:15 p.m.

#### UR FORUM LUNCHEON SPEAKERS

12:00 p.m.

Introduction - James T. Oris, Associate Provost and Dean of the Graduate School

Welcome - Gregory P. Crawford, President

Remarks - Phyllis A. Callahan, Provost and Executive Vice President

### Oral Presentations - Afternoon Sessions, IV, V, VI

Session No.	Session Duration	Room	Room	Room
Session IV	1:30 p.m. to 2:15 p.m.	ASC-2042	ASC-3001	ASC-3056B Pavilion
Session V	2:30 p.m. to 3:15 p.m.	ASC-2042	ASC-3001	ASC-3056B Pavilion
Session VI	3:30 p.m. to 4:15 p.m.	ASC-2042	ASC-3001	ASC-3056B Pavilion

### Poster Sessions (Shriver John Dolibois Rooms)

Over 650 student presenters share the results of their research

Lobby Sessions A B C

Session A 10:00 a.m. - 11:30 a.m.

Session B 1:30 p.m. - 2:45 p.m.

Session C 3:00 p.m. - 4:30 p.m.

(See also index on pages 53 - 73)

SESSION I: 9:00 - 9:45 A.M.

Armstrong ASC-2042

**SESSION MODERATOR: Diane Berish** 

Nathan Burns, Biochemistry Major

**ADVISOR(S)**: Katia Del Rio-Tsonis Department of Biology The Role of miRNAs in Chick Retina Regeneration

Joseph Landers, Biology Major

ADVISOR(S): Katia Del Rio-Tsonis Department of Biology Nancy Paola Ruiz-Echeverri Department of Biology

N-acetyl Cysteine as an Inducer of Retina

Jared Tangeman, Biology Major

ADVISOR(S): Katia Del Rio-Tsonis Department of Biology

Agustin Luz-Madrigal Department of Biology

Epigenetic Reprogramming of the Embryonic Chick Retinal

Pigmented Epithelium

Armstrong ASC-3001

SESSION MODERATOR: Megan Loftin

Henry Leaman, Sociology Major

ADVISOR(S): Kristen Budd Department of Sociology

and Gerontology

MU Student Opinions on University Discipline for Off Campus

Alcohol Violations

Julia Pair, Social Justice Studies and English Professional

Writing Major

ADVISOR(S): Kristen Budd Department of Sociology

and Gerontology

Correcting Controlled Substance Schedules to Reflect Scientific Research on Alcohol, Tobacco, and Marijuana and

What that Will Mean for American Society

Stephanie Levin, Sociology Major

ADVISOR(S): Stephen Lippmann Department of Sociology

and Gerontology

Who Makes the Choice? Gender and the Pursuit

of Entrepreneurship

Armstrong ASC-3056B

**SESSION MODERATOR: Brianna Watson** 

Sydney Brinck, Business Economics Major

Heather Bonsky, Marketing Major

ADVISOR(S): Megan Gerhardt Department of Management

Personalities and Success

**Lena Rutherford**, Information Systems Major

Josh Sekerak, Accountancy and Finance Major

ADVISOR(S): Megan Gerhardt Department of Management

International Student Inclusion and Engagement

Brandi McConahay, Anthropology Interactive Media

Studies Major

ADVISOR(S): Jeb Card Department of Anthropology

3D Archaeology

(See presenter index on pages 53 - 73)

SESSION II: 10:00 - 10:45 A.M.

## Armstrong ASC-2042 SESSION MODERATOR: Nicole Cottone

**Ken DeRose**, Physics Major **ADVISOR(S)**: Samir Bali Department of Physics *Measurement of Slowlight in Electromagnetically Induced Transparency* 

Xin Dong, Chemical and Paper Engineering Major ADVISOR(S): Samir Bali Department of Physics Lalit Bali Department of Physics Optical Sensor with Temperature and Flow Control for Particle Sizing in Turbid Media

**Linzhao Zhuo**, Physics and Business Economics Major **ADVISOR(S)**: Andrew Hachtel Department of Physics Samir Bali Department of Physics "Twisted" Light: What Is It and How to Create It in the Lab?

## Armstrong ASC-3001 SESSION MODERATOR: Luke Stanek

**Hehe Wang**, Chemistry Major **ADVISOR(S)**: Hong Wang Department of Chemistry and Biochemistry Abdullah Bilal Altundas Department of Chemistry and Biochemistry *Synthesis of*  $\pi$ -Extended Tetraphenylorphyrins

**Christina Haffey**, Zoology and Environmental Science Major **ADVISOR(S)**: David Gorchov Department of Biology The Effects of Deer and an Invasive Shrub on Understory Herbs and Seedlings

**George Gruenhagen**, Bioengineering Major **ADVISOR(S):** Richard Moore Department of Biology Chun Liang Department of Biology *MITE Analysis in Angiosperms* 

## Armstrong ASC-3056B session moderator: Kevin Doherty

**Zack McBride**, English, Management and Leadership and Finance Major

**ADVISOR(S)**: Karly Geller Department of Kinesiology and Health

Callie Maddox, Department of Kinesiology and Health Big 5 Personality Traits as a Predictor of Success in Collegiate Track & Field

**Daniel Kuperman**, Finance and Sustainability Major **Palmer Holcomb**, Finance and Business Economics Major **ADVISOR(s)**: Megan Gerhardt Department of Management *Investigating the Implications of Circadian Typology on Student Performance* 

Anna Cavagnaro, Psychology Major

ADVISOR(s): Amy Summerville Department of Psychology

Ryan Walker Department of Psychology

Effects of Regret Expressions on Warmth and Competence
Ratings in a Social Context and a

Business Context

(See presenter index on pages 53 - 73)

SESSION III: 11:00 - 11:45 A.M.

Armstrong ASC-3001

SESSION MODERATOR: Marshawn Brewer

Caleb Lowell, Political Science and Strategic

Communication Major

ADVISOR(S): Shelly Jarrett Bromberg Department of Spanish

and Portuguese

Elderly Care Facilities in Nicaragua

Julia Behrend, Biology Major Giovanna Farinazo, Marketing Major Nubia Colussi, Public Administration Major

ADVISOR(S): Paula Gandara Department of Spanish

and Portuguese

Endangered Documents of the Amazon

Armstrong ASC-3056B

SESSION MODERATOR: Colin Widmer

**Elizabeth Foley**, Latin American, Latino/a, & Caribbean Studies and International Studies Major

ADVISOR(S): Elena Albarrán Latin American Studies Program Pricing the Disabled Child: The Spectacle of Teletón in Neoliberal Chile

Kaitlin Thompson, Latin American, Latino/a, & Caribbean

Studies and Social Work Major

**ADVISOR(S):** Elena Albarrán Department of History Babies of the Banana Republic: Unpeeling Cultural Sensitivity in Transnational Adoptions at Home and Abroad

**Mikayla Mitchell**, International Studies Major **ADVISOR(s):** Tani Sebro Global and Intercultural Studies Program

The Need for Intersectional Feminism on Miami's Campus

(See presenter index on pages 53 - 73)

SESSION IV: 1:30 - 2:15 P.M.

### Armstrong ASC-2042

SESSION MODERATOR: Melvin Ikwubuo

Anthony Young, Physics Major

ADVISOR(S): Karthik Vishwanath Department of Physics A Multi-wavelength, Wide-field Laser Speckle System for Imaging Flow

Tiago Schaeffer, Physics and Music Major ADVISOR(S): Mahmud Khan Department of Physics Jeffrey Brock Department of Physics Exchange Bias Effect in Mn 2Ni 1+xGa 1-x

Jacob McFarland, Physics Major ADVISOR(S): Burcin Bayram Department of Physics Time-Resolved Spectroscopy of Excited Sodium Dimers

### Armstrong ASC-3001

SESSION MODERATOR: Veranica Rasicci

Brad Terrace, Latin American, Latino/a, & Caribbean Studies and Diplomacy and Global Politics Major ADVISOR(S): José Amador Latin American Studies Program From Home Run to Strikeout: How Politics Has Caused a Change in the Venezuelan Baseball Landscape

Mary Heath, Spanish and Latin American, Latino/a, & Caribbean Studies Major ADVISOR(S): José Amador Latin American Studies Program

Undocumented Evangelism: Immigration, Detention, and Sanctuary on the U.S.-Mexican Border

Inma Sumaita, English Literature Major ADVISOR(S): Andrew Hebard Department of English American Naturalism and White Socialist Narratives

### Armstrong ASC-3056B SESSION MODERATOR: Colin Greig

Victoria Diana, Psychology Major

ADVISOR(S): Elise Radina Department of Family Science and Social Work

The Effect of Poverty on Single Mothers & Their Offspring: Understanding the Impact Beyond Financial Stressors

Mary Martin, Social Work Major

ADVISOR(S): Elise Radina Department of Family Science and Social Work

The Opiate Epidemic's Ground Zero

Claire Stemen, Comparative Media Studies and English Creative Writing Major

ADVISOR(S): Mack Hagood Department of Media Journalism and Film

Pantsuit Nation and the Power of Dress

(See presenter index on pages 53 - 73)

SESSION V: 2:30 - 3:15 P.M.

### Armstrong ASC-2042

**SESSION MODERATOR: Shelly Jarrett Bromberg** 

**Lauren Gottschalk**, Psychology and Environmental Science Major

ADVISOR(s): Allen McConnell Department of Psychology Making Pledges More Powerful: Environmental Concern Appeals Affect Recycling Behavior

**Sandra Glazer**, Psychology Major **ADVISOR(S):** Barbara Oswald Department of Psychology *Effects of Zen Coloring on Anxiety in Consistent-vs. Inconsistent Handers* 

## Armstrong ASC-3001 session moderator: Kendra DeWater

Jessie Slattery, Physics Major

ADVISOR(s): Samir Bali Department of Physics

Patrick Janovick Department of Physics

Brillouin Resonances in Cold Atoms

Ann Rumsey, Manufacturing and Management
Engineering Major
ADVISOR(S): Muhammad Jahan Department of Mechanical
and Manufacturing Engineering
Micromachining of Glass for Microfluidic Applications - A
Review

**Garrett Long**, Chemical and Paper Engineering Major ADVISOR(S): Andrew Paluch Department of Chemical Paper and Biomedical Engineering

The Effect of Force Field Selection on Modeling Binary Aqueous Mixtures

## Armstrong ASC-3056B SESSION MODERATOR: Gisel Valladares

Victoria Diana, Psychology Major
ADVISOR(S): Rhett Brymer Department of Management
Scott Dust Department of Management
Beyond The Numbers: The Impact of Company Culture in
Corporate Acquisitions

Catherine Mazanek, American Studies and Sustainability Major ADVISOR(S): Marguerite Shaffer Global and Intercultural Studies Program Sustainable Agriculture in Higher Education: Placing Miami University's Institute for Food in Context

McKenzie Crist, Zoology and Environmental Science Major ADVISOR(S): Hafei Shi Department of Biology Chris Zhu Department of Chemistry and Biochemistry Minqian Shen Department of Biology Effects of Estrogen on Leptin-Induced Growth in Human Colon Cancer Cells

(See presenter index on pages 53 - 73)

SESSION VI: 3:30 - 4:15 P.M.

Armstrong ASC-2042

SESSION MODERATOR: Abby Lyons

Adam Reece, Mechanical Engineering Major

ADVISOR(S): Jeong-Hoi Koo Department of Mechanical and

Manufacturing Engineering

Characterization of Dynamic Responses of Bending Actuators Based on Magneto-Rheological Elastomers

Takdanai Tantiyartyanontha, Mechanical

**Engineering Major** 

Eric Shin, Mechanical Engineering Major

ADVISOR(S): Jeong-Hoi Koo Department of Mechanical and

Manufacturing Engineering

Generating Human Arterial Pulse Waveforms Using

Controllable Magnetic Fluid

**Imokhai Okolo**, Social Justice Major **ADVISOR(S)**: Kristen Budd, Department of Sociology and Gerontology

MU Student Opinions on University Discipline for Off

Campus Drug Violations

Armstrong ASC-3001

SESSION MODERATOR: Margaret Breidenbaugh

Hannah Regan, English Linguistics Major

ADVISOR(S): Jacque Daugherty Western Program

Abstinence-Only Sexuality Education Standards as Reflected

in "The Secret Life of the American Teenager"

Ali Preissing, International Studies and Political

Science Major

ADVISOR(S): Erica Edwards Department of Political Science

Immigration Irony: the UK after Brexit

Paul Fredrick, Political Science and History Major

ADVISOR(S): Erica Edwards Department of Political Science

The Rise of Radicalization and Terrorism in France

Armstrong ASC-3056B

**SESSION MODERATOR: Caleb Stidham** 

Caitlin McElligott, Anthropology Major

ADVISOR(S): John Schaefer Department of Anthropology

The Educational Crisis: Viewpoints Ranging from Local to

International

Lauren Ramsey, Biology Major

Mary Martin, Social Work Major

Danielle Jones, Public Health Major

Alyssa Oddo, Social Work Major

ADVISOR(S): Elise Radina Department of Family Science and

Social Work

Welcome to My World: A Mix-Method Study of Parent's Lived Experiences in Raising Children with Primary Lymphedema

## SESSION A: 10:00 - 11:30 A.M. SHRIVER LOBBY

(See presenter index on pages 53 - 73)

A01L Rachel Poyfair, Anthropology and Individualized Studies (Western Program) Major
Advisor(s): James Bielo, Department of Anthropology
The Aesthetics of Ideology

A02L Brandi McConahay, Anthropology and Interactive Media Studies Major
 Advisor(s): Eric Hodgson, Armstrong Institute for Interactive Media Studies
 Jeb Card, Department of Anthropology
 Augmented Archaeology

AO3L Kristine Camper, Biology and Anthropology Major
Advisor(s): Linda Marchant, Department
of Anthropology
Environmental Factors on Well-Being of Captive
Pottos (Perodicticus potto) at the Cincinnati Zoo

AO4L Clayton Musolff, Architecture Major
Greg Heinrich, Architecture and Geography Major
Ruben Victoria, Architecture and Interactive Media
Studies Major
Advisor(s): Murali Paranandi, Department of
Architecture
Robotics and Kinetics Investigation

A05L Jimmy Devitt, Marketing Major
Advisor(s): Murali Paranandi, Department of
Architecture
Unity 3D

A06L Madison Scheper, Architecture Major
Advisor(s): Murali Paranandi, Department
of Architecture
Exploring Digital Manufacturing: Joinery Through 3D
Printing

A07L Diana Suarez, Architecture and Sustainability Major
Advisor(s): Murali Paranandi, Department
of Architecture
3D Printing and Design

AO8L Tara Miller, Interactive Media Studies Major
Advisor(s): Murali Paranandi, Department
of Architecture
3D Design

A09L Lindsay Thurston, Interactive Media Studies Major
Advisor(s): Murali Paranandi, Department
of Architecture
Exploration in 3D Printing

A10L Carly Moro, Interior Design Major
ADVISOR(S): Murali Paranandi, Department
of Architecture
3d Printing Technology Exploration

A11L Reed Gerber, Architecture Major
Zhengjia Huo, Architecture Major
Sam Olmsted, Architecture Major
Connor Wigton, Interactive Media Studies Major
Advisor(s): Murali Paranandi, Department
of Architecture
Popup Art Gallery: Exploring Digital Fabrication

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

**A01** Patrick Carroll, Physics Major **Advisor(s):** Jennifer Blue, Department of Physics

Advisor(s): Jennifer Blue, Department of Physics
Social Collaboration and the Usage of Textbooks in an
Introductory Physics Class

**A02 Sarah Hiner,** Medical Laboratory Science and Microbiology Major

**Advisor(s):** Annette Bollmann, Department of Microbiology
Keely Icardi, Department of Microbiology *Microbial Communities and Wild Beer Enrichments* 

A03 Matthew Koehler, Athletic Training Major

**Advisor(s):** Eric Brooks, Department of Kinesiology and Health

Bilateral Os Trigonum and Calcaneal-Navicular Coalition in a Female Collegiate Soccer Player

A04 Quentin Mullen, Athletic Training and

Kinesiology Major

**Advisor(s):** Eric Brooks, Department of Kinesiology and Health

Complete Knee Dislocation and Associated Orthopedic Damage in a Division One Collegiate Football Player: A Case Report

A05 Bri Higgins, Nutrition and Kinesiology Major

Natalie Briggs, Nutrition Major

Advisor(s): Kyle Timmerman, Department of

Kinesiology and Health

Victoria Warren, Department of Kinesiology and Health

Quantifying the Abilities of Older Adults to Meet Recommended Dietary Allowances

A06 Sean Boyles, Microbiology Major

**Advisor(s):** Yoshinori Tomoyasu, Department of Biology

Courtney Clark-Hachtel, Department of Biology Tracing the Developmental and Evolutionary Origin of Wing in Red Flour Beetle, Tribolium castaneum A07 Monica Fernandez, Biology Major

**Advisor(s):** Yoshinori Tomoyasu, Department of Biology

Courtney Clark-Hachtel, Department of Biology Elucidating the Role of Tergal and Pleural Tissues during Wing Formation in Red Flour Beetle

A08 Samuel James, Biology Major

**Advisor(s):** Yoshinori Tomoyasu, Department of Biology

David Linz, Department of Biology Stinky Wings... Maybe?

A09 Jacob Schultz, Biology and Premedical Studies Major

Advisor(s): Yoshinori Tomoyasu, Department

of Biology

Courtney Clark-Hachtel, Department of Biology Establishing the Giant Mayfly (Hexagenia) as a Model to Study the Origin of Insect Wings

**A10 Michael Gunderman**, Mechanical Engineering Major A Study of Augmented Flight Control Systems on a Radio-Controlled Aircraft

Anthony Rapp, Physics and Music Major
 Tiago Schaeffer, Physics and Music Major
 Ben Amend, Physics and Mathematics Major
 Jayson Rook, Physics and Computer Science Major
 The Education Uses of an Interferometer

A12 Hong Cai, Physics and Mathematics Major
Advisor(s): Anna Ghazaryan, Department of
Mathematics

Dynamic System Approach to Rosenzweg-MacArthur Model

A13 Dylan Palo, Physics and Mathematics Major

Symeon Stefan, Biology Major

**Advisor(s):** Paul Urayama, Department of Physics Using Real Time Quantification of Autofluorescence Spectrum Shape to Distinguish Between Metabolic Responses Involving NADH Utilizing Pathways

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

A14 David Noviski, Chemical and Paper

**Engineering Major** 

Anna Haralson, Psychology Major

Linh Le, Biology Major

**Taylor Hurt**, Biology and Premedical Studies Major

Advisor(s): Karthik Vishwanath, Department

of Physics

Joseph Johnson, Department of Psychology

A New Method for Determining Heart Rate via Video

Recording

A15 Joshua Rutowski, Mathematics Major

Advisor(s): Jiangjiang Zhu, Department of Chemistry

and Biochemistry

Metabolic Shift of Staphylococcus aureus under

Sublethal Dose of Methicillin in the Presence of

Glucose

A16 Anjali Prior, Chemistry and Premedical Studies Major

Advisor(s): Haifei Shi, Department of Biology

Jiangjiang Chris Zhu, Department of Chemistry

and Biochemistry

Minqian Shen, Department of Biology

Anthony Sallese, Department of Chemistry

and Biochemistry

Differential Effects of Leptin on Normal Colon Cells

and Colon Cancer Cells

A17 Bradley Glazier, Biology Major

Benjamin Hinkel, Biology Major

Advisor(s): Haifei Shi, Department of Biology

Qi Zhu, Department of Biology

Regulation of Lipid Metabolism by the Sympathetic

Nervous System in Male and Female Mice

A18 Mike Deal, Biology and Kinesiology Major

Adam Meisler, Chemical and Paper Engineering Major

Advisor(s): Kyle Timmerman, Department of

Kinesiology and Health

Physical Activity Level is Associated with Endogenous

Antioxidants in Older Adults

A19 Meredith Moser, Psychology Major

Advisor(s): Amy Summerville, Department

of Psychology

Ryan Walker, Department of Psychology

Influence of Counterfactual Thought on Academic

Performance

A20 Le Chang, Mathematics and Statistics and

Finance Maior

Advisor(s): Ying-Ju Chen, Department of Information

Systems and Analytics

A Study of Statistical Inference for Kidney Transplant

A21 Marie Brake, Zoology Major

Advisor(s): Jon Costanzo, Department of Biology

James Wiebler, Department of Biology

Analysis of Gut Microflora in the Wood Frog (Rana

sylvatica) from Interior Alaska

A22 Tori Ethridge, Biology and Premedical Studies Major

Paul Bissmeyer, Biology and Premedical

Studies Major

Advisor(s): Ann Rypstra, Department of Biology

Michael Stanley, Department of Biology

Jake Godfrey, Department of Biology

Foraging Effects of Atrazine on Wolf Spiders

Pardosa milvina

A23 Erin Enright, Biochemistry Major

Zachary DeMartini, Chemistry Major

Daniel Stoecklein, Chemistry and Premedical

Studies Major

Sean Inutsuka, Biochemistry Major

Michael Harris, Chemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Politics and Global Warming

A24 Savannah Rice, Geology and Sustainability Major

Jack Miles, Geology Major

Noah Frey, Geology and Spanish Major

Advisor(s): Brian Currie, Department of Geology and

Environmental Earth Science

Patrick Cullen, Department of Geology and

Environmental Earth Science

Creating an Initial Exploration Framework for the

Berea Sandstone within the Appalachian Basin

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

A25 Maren Osterholt, Biology Major

Advisor(s): Carole Dabney-Smith, Department of Chemistry and Biochemistry
Christopher Makaroff, Department of Chemistry
and Biochemistry
Ramja Sritharan, Department of Chemistry
and Biochemistry
Investigating the Role of SYN3 in Chloroplasts

**A26** Sarah Kosse, Biology and Premedical Studies Major Advisor(s): Katia Del Rio-Tsonis, Department of Biology

Agustin Luz-Madrigal, Department of Biology Analysis of DNA Methylation During RPE Reprogramming Towards Retina Regeneration

A27 Annie Bryan, Psychology Major
Advisor(s): Amanda Diekman, Department
of Psychology
Melissa Fuesting, Department of Psychology

**A28** Lana Pochiro, Urban and Regional Planning and Political Science Major

**Advisor(s):** Bruce D'Arcus, Department of Geography Play in the Neoliberal City: A Study of Youth Spaces in Over-the-Rhine, Cincinnati

Benevolent Sexism as a Predictor of Critical Feedback

A29 Jeffrey Caldwell II, Media and Culture Major Advisor(s): Rodney Coates, Black World Studies Program Let's Make America Great Again: Let's Start in the Ghetto

**A30** John Latimer, Biology and Neuroscience Major Advisor(s): Dawn Blitz, Department of Biology Central Effects of Hormonal Neuromodulation on Muscle Contraction

A31 Jack Bennett, Chemistry Major
Justin Moon, Medical Laboratory Science Major
Emily Curen, Psychology and Neuroscience Major
Brooke Buckingham, Biology Major
Advisor(s): Joyce Fernandes, Department of Biology
Divyalakshmi Soundararajan, Department of Biology
FYRE: Similarities and Differences in the Way
Organisms Make Muscle

A32 Isaiah Jacques, Microbiology Major
Ryan Kaplevatsky, Biology Major
Mitchell Singstock, Philosophy Major
Matt Megura, Biology Major
Advisor(s): Joyce Fernandes, Department of Biology
Divyalakshmi Soundararajan, Department of Biology
FYRE: Investigating Intercellular Signalling During
Flight Muscle Development in Drosophila

A33 Natalie Cavalco, University Studies Major
Jeffrey Rhoades, Biology Major
Sam Lewis, Biology Major
Jermaine Carew, Biology Major
Advisor(s): Joyce Fernandes, Department of Biology
Divyalakshmi Soundararajan, Department of Biology
First Year Research Experience: UNV171A/UNV172A:
A Pilot Research Based Course in Invertebrate
Neurobiology

A34 Leah Kuhn, Chemistry Major
Nick Simbartl, Biochemistry Major
Jenn Peters, Biochemistry Major
Megan Jackson, Microbiology Major
Advisor(s): Joyce Fernandes, Department of Biology
Divyalakshmi Soundararajan, Department of Biology
FYRE: Manipulating Muscle Development in
Drosophila

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

#### A35 Brittany Nordhaus, Psychology and

Neuroscience Major

Kira Osowski, Psychology Major

Nikita Patel, Kinesiology and Neuroscience Major

**Caitlin Douglas,** Zoology Major **Keith Schilstra**, Zoology Major

Madison Enderson, Zoology and Premedical

Studies Major

Mallory Myers, Zoology and Neuroscience Major

**Adam Davisson**, Zoology Major **Jennifer Nixdorf**, Zoology Major

Yitong He, Biology Major

Christina Ebenroth, Biology and Premedical

Studies Major

**Taylor Boll**, Biology and Premedical Studies Major **Rishav Banerjee**, Biology and Premedical Studies Major

**Advisor(s):** Joyce Fernandes, Department of Biology Valerine Rajathi, Department of Biology Aswati Subramanian, Department of Biology *Change is Inevitable: Plasticity in the Brain* 

### A36 Brittany Nordhaus, Psychology and

Neuroscience Major

**Nikita Patel**, Kinesiology and Neuroscience Major **Christina Ebenroth**, Biology and Premedical Studies Major

**Taylor Boll,** Biology and Premedical Studies Major **Rishav Banerjee**, Biology and Premedical Studies Major

**Madison Enderson**, Zoology and Premedical Studies Major

**Mallory Myers**, Zoology and Neuroscience Major **Caitlin Douglas**, Zoology Major

Keith Schilstra, Zoology and Gerontology Major

Kira Osowski, Psychology Major Adam Davisson, Zoology Major Jennifer Nixdorf, Zoology Major Yitong He, Biology Major

Advisor(s): Joyce Fernandes, Department of Biology

Aswati Subramanian, Department of Biology Valerine Rajathi, Department of Biology

It's All in the Genes: Manipulating Glia in Drosophila

#### A37 Sydney O'Wesney, Anthropology and

Sustainability Major

**Advisor(s):** Melany Fisk, Department of Biology Shinjini Goswami, Department of Biology Seedling Allocation Response to Nutrient Addition in Northern Hardwood Forest

**A38** Mayu Nakano, English Creative Writing and East Asian Languages and Cultures Major

**Advisor(s):** Kazue Harada, GRAMELAC Department A Tale of Two Nations: The Perception and the Role of Disability in Flowers for Algernon and A Personal Matter

A39 Madison Baker, Zoology and Psychology Major Advisor(s): Richard Lee, Department of Biology J. D. Gantz, Department of Biology The Effects of Drought- and Cold-Induced Rapid Cold-Hardening on Flight Ability in the Flesh Fly, Sarcophaga bullata

## **A40 Olivia Richter,** Biology and Environmental Science Major

**Advisor(s):** Maria Gonzalez, Department of Biology Tanner Williamson, Department of Biology Interactive Effects of Sediment and Nutrients on Zooplankton Communities

#### A41 Ella Sedacca, Zoology Major

Advisor(s): Maria Gonzalez, Department of Biology
Michael Vanni, Department of Biology
Amber Rock, Department of Biology
Tanner Williamson, Department of Biology
Differences in Rotifer Population Dynamics in an
Ohio Reservoir in Years with Contrasting
Environmental Conditions

A42 Carly Gemma, Biology and Premedical Studies Major Advisor(s): Paul Harding, Department of Biology Sean Taylor, Department of Biology Novel Insights into the Molecular Mechanisms of Transdifferentiation of Cells into Brown Adipose Tissue-like Cells

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

A43 Daniel Pfeil, Mechanical Engineering Major
Advisor(s): Paul Harding, Department of Biology
Sean Taylor, Department of Biology
Cellular Reprogramming into Brown Adipose Tissue
(BAT) -like Cells Is Independent of Mature Heparinbinding EGF-like Growth Factor (HB-EGF) and HBEGF C Domains

**A44 Abby Begezda,** Biology and Premedical Studies Major

**Aonesti Williams**, Biology and Premedical Studies Major

Amanda Hayes-Puttfarcken, Zoology Major
Advisor(s): Susan Hoffman, Department of Biology
Joseph Baumgartner, Department of Biology
Jeremy Papuga, Department of Biology
Examining the Genetic Consequence of Habitat
Fragmentation in the northern Michigan white-footed
mouse (Peromyscus leucopus noveboracensis)

**A45** Olivia Owens, Botany and Environmental Science Major

**Advisor(s):** Carolyn Keiffer, Department of Biology Growing American Chestnut Hybrids in southwest Ohio

**A46** Cassandra Worner, Microbiology and Neuroscience Major

**Austin Schafer**, Biology and Premedical Studies Major **Advisor(s):** Kathleen Killian, Department of Biology Mollie Sorrell, Department of Biology *Role of Fragile X in Maintaining the Adult Neurogenic Niche* 

A47 Yunhan Zhang, Chemistry Major

**Advisor(s):** Benjamin Gung, Department of Chemistry and Biochemistry

Reinforce the Enantioselectivity by Introducing a Thermal Chiral Ligand to N-Heterocyclic Carbenes (NHCs) Au(I) Catalysts A48 Taylor Becker, Biochemistry Major
Advisor(s): Michael Kennedy, Department of
Chemistry and Biochemistry
Faizule Hassan, Department of Chemistry
and Biochemistry
Adenovirus Mediated Delivery of an Engineered DNA

**A49 Hannah Ruby**, Biochemistry and Premedical Studies Major

**Sabina Bashir**, Biochemistry and Premedical Studies Major

Sequence for Pancreatic Cancer Treatment

Advisor(s): Michael Kennedy, Department of Chemistry and Biochemistry Tafadzwa Chihanga, Department of Chemistry and Biochemistry

Identification of Urine Metabolic Biomarkers for Hypoxia-Induced Acute Kidney Injury Mouse Model

**A50** Brian Spinello, Biochemistry Major

**Advisor(s):** Scott Hartley, Department of Chemistry and Biochemistry

Gopi Nath Vemuri, Department of Chemistry and Biochemistry

Analyzing Functionalized ortho-Phenylenes Using 1H NMR

**A51** Allison Theberge, Biochemistry Major

Amy Trowbridge, Biology Major

**Advisor(s):** Richard Bretz, Department of Chemistry and Biochemistry

Marcia Lee, Department of Microbiology The Isolation and Determination of Two Related Compounds from the Leaf Gel of Aloe cameronii

**A52** Amy Trowbridge, Biology Major

Sara Wagner, Microbiology Major

**Advisor(s):** Marcia Lee, Department of Microbiology Richard Bretz, Department of Chemistry and Biochemistry

Investigating Antifungal Mechanisms of Plant-derived Compounds

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

**A53** Joanna Orzel, Chemistry and Spanish Major Advisor(s): Stacey Lowery Bretz, Department of Chemistry and Biochemistry

Faculty Expectations for Meaningful Learning in the Undergraduate Chemistry Laboratory: How Do Students' Experiences Compare?

**A54** Annie Hause, Psychology and Family Science and Social Work Major

**Rebecca Wesseh**, Psychology and Family Science and Social Work Major

**Mercedes Obregon**, Family Science and Social Work Major

Lillyanna Faimon, Psychology and

Neuroscience Major

**Rylan Moore**, English Language Arts Education and Neuroscience Major

**Advisor(s):** Katherine Kuvalanka, Department of Family Science and Social Work

Chelsey Gates, Department of Family Science and Social Studies

Trans\*Kids Project: Sibling Relationships in Families With Trans Children

**A55** Madison Jackson, Zoology and Environmental Science Major

**Advisor(s)**: Michael Vanni, Department of Biology Tanner Williamson, Department of Biology Seasonal Trends in Reservoir Denitrification Rates

**A56** Megan McBride, Biology and Premedical Studies Major

**Advisor(s):** Michael Vanni, Department of Biology Tanner Williamson, Department of Biology Resilience of Eutrophic Aquatic Ecosystems to Storm Events

A57 Wrik Chatterjee, Geology and Biology Major
Advisor(s): Carrie Tyler, Department of Geology and
Environmental Earth Science
Quantitative Analysis of Biotic Interactions
with Echinoids

A58 Mona-Mae Juwillie, International Studies and Global Perspectives on Sustainability Major
Advisor(s): Jonathan Levy, Department of Geology and Environmental Earth Science
Creating Sustainable Clean Water Solutions in the Rural Villages of Ghana

A59 Victoria Thompson, Nutrition Major Mickey Myers, Nutrition Major

Marla Guggenheimer, Nutrition Major

Denise Chan, Nutrition Major

Amy Skeels, Nutrition Major

Rachel Wyand, Nutrition Major

Aisha Fichtner, Nutrition Major

**Advisor(s):** Beth Miller, Department of Kinesiology and Health

Home Gardening; A Needs Assessment for a Gardening Program for Public Housing Residents

**A60** Hannah Robertson, Biology and Premedical Studies Major

**Advisor(s):** Andor Kiss, Department of Microbiology Molecular Characterization of Eye Lens Crystallins from Freeze Tolerant Wood Frog

A61 Kris Horman, Psychology Major
Advisor(s): Rose Marie Ward, Department of
Kinesiology and Health
Are You That Happy to See Me, or Is It the Alcohol
Talking? A Study of the Effects of Intimacy on Alcohol
Consumption

**A62** Andrea Lee, East Asian Languages and Cultures and Latin American, Latino/a, and Caribbean Studies Major

**Advisor(s):** Rose Marie Ward, Department of Kinesiology and Health Correlating the Relationship between Personality Traits and Blacking Out Due to Alcohol Consumption

**A63 Dannie Roberts**, Kinesiology and Premedical Studies Major

**Advisor(s):** Rose Marie Ward, Department of Kinesiology and Health Unusual Alcohol Consumption Methods and Risky Drinking

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

A64 Emily Wilson, Biology Major

Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Exploring Alcohol Use in College Students

A65 Josh Bradford, Italian Studies Major

Advisor(s): Andrea Right, Department of French

and Italian

Analyzing Tracking Narratives: Fitbit and Apple Watch

A66 Carrie Helldoerfer, Marketing Major

Opportunities in Appealing to Male Customers for

Barefoot Wine

A67 Sara Al-Zubi, Management and Leadership and

Premedical Studies Major

Sumedha Chakravarti, Business Economics and

Information Systems Major

Advisor(s): Megan Gerhardt, Department

of Management

Religious Bias in the Workplace

A68 Trent Neubecker, Accountancy and Marketing Major

Matt Diehl, Finance Major

Nate Sommerfield, Finance Major

Advisor(s): Megan Gerhardt, Department

of Management

Perceptions about the Drinking Culture at Miami from

Members of Miami Fraternities

**A69** Nicole Keshock, Supply Chain and Operations

Management and Comparative Media Studies Major

Advisor(s): Mack Hagood, Department of Media

Journalism and Film

Netflix and Chill: A Cultural Investigation

Regarding the New Identities Surrounding A

Breakthrough Medium

A70 Jayvon Howard, Family Science and Social

Work Major

Advisor(s): C. Lee Harrington, Department of

Sociology and Gerontology

Talking Dick, Black Queer Masculinities and the Body:

A Critical Auto-Ethnography

A71 Kevin Summers, Psychology and Premedical

Studies Major

Advisor(s): Kurt Hugenberg, Department

of Psychology

Paige LLoyd, Department of Psychology

The Effects of Target and Participant Gender on

Deception Detection

A72 Rachael Weesner, Psychology and

Neuroscience Major

Gabrielle Fernandez, Psychology and Premedical

Studies Major

Eleanor Simmons, Psychology Major

Advisor(s): Kurt Hugenberg, Department of

Psychology

Barefaced Beauty: Exposure to Other Women's

Makeup Negatively Impacts Self-Esteem

A73 Nick Fendinger, English Professional Writing and

Psychology Major

Kristin Mitchell, Psychology Major

**Advisor(s):** Kurt Hugenberg, Department

of Psychology

Allen McConnell, Department of Psychology

Paige Lloyd, Department of Psychology

WHR and Sexism

A74 Katherine Byrket, Biology and Premedical

Studies Major

Advisor(s): Elizabeth Kiel-Luebbe, Department

of Psychology

Anne Kalomiris, Department of Psychology

Error-Related Negativity and Social Anxiety in

Kindergartners

A75 Emily Ritchie, Psychology Major

Advisor(s): Jonathan Kunstman, Department

of Psychology

Christina Fitzpatrick, Department of Psychology

The Power of Labels: Differential Status Associations

with African Americans and Black People

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

A76 Sierra Semko, Psychology Major

Advisor(s): Jonathan Kunstman, Department of Psychology Christina Fitzpatrick, Department of Psychology Ryan Nicholls, Department of Psychology Race Concerns Predict Academic and Health

A77 Alaina Swope, Psychology and English

Outcomes for Students of Color

Literature Major

Advisor(s): Aaron Luebbe, Department of Psychology Kathryn Mancini, Department of Psychology The Differential Influences of ADHD Symptoms and Sluggish Cognitive Tempo on Mother-Adolescent Emotional Flexibility

A78 Carly Cooper, Psychology Major

**Advisor(s):** Aaron Luebbe, Department of Psychology Kathryn Mancini, Department of Psychology *Gender Differences in Mother-Adolescent Dyadic Affective Flexibility* 

A79 Casey Gallagher, Biochemistry Major

ADVISOR(s): Richard Taylor, Department of Chemistry and Biochemistry

Approaches to Ricconiugation of Heparin Using

Approaches to Bioconjugation of Heparin Using Click Chemistry

**A80** Andrew Pescovitz, Nutrition and Kinesiology Major Allison Feran, Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

Effect of Whey Protein Isolate and Inulin Powder on the Flavor and Texture of No-Fat Ice Cream

**A81 Ashley Miller,** Nutrition and Public Health Major

**Abby Younce,** Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

Acceptability of Baked Fries With and Without Oil

**A82** Mary Issenmann, Nutrition and Public Health Major

Megan Rigot, Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

Substitution of Avocado Oil for Butter in Cookies

A83 Lauren Hoover, Nutrition Major

Jingwei Zhang, Nutrition Major

Advisor(s): Jennifer Pate, Department of Kinesiology

Effect of Coconut Oil as Replacement for Butter in Chocolate Chip Cookies in Relation to Physical, Textural, and Sensory Attributes

A84 Phillip Carr, Nutrition and Kinesiology Major

Dolly Rinehart, Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

The Effect of Flour Types on the Consistency of Scones

A85 Grace Petro, Nutrition Major

Jess Bolton, Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

Sweetener Variations Influencing Custard

A86 Sarah Ward, Nutrition Major

Marisa Seitz, Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

Effects of Temperature on Perceived Sweetness of Mango-Peach Gelato

A87 Hannah Merkle, Nutrition Major

Rachel Keller, Nutrition Major

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

What is the Best Lactose Free Alternative for Buttercream Frosting?

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

#### A88 Ethan Hollingsworth, Biology and

Neuroscience Major

**Shelby Lab**, Psychology and Neuroscience Major **Angus Cady**, Philosophy and Sustainability Major

Annastasia Babcock, Biology Major

**Justin Heintz**, Biomedical Engineering Major

Kelsey Demel, Diplomacy & Global Politics Major

Alexa Enders, Biology and Premedical Major

Rachel Hawkins, Chemistry and Microbiology Major

**Carolina Garcia**, Psychology and Neuroscience Major **Olivia Collins**, Microbiology and Premedical Major

Lexi March, Speech Pathology and Audiology

and Major

Advisor(s): Jennifer Quinn, Department

of Psychology

Role of Orbitofrontal Cortex in Fear Memory

Reconsolidation following an Expected Reactivation

#### A89 Ethan Hollingsworth, Zoology and

Neuroscience Major

Victoria Mordzinski, Biology and Premedical

Studies Major

Katelyn Scheive, Psychology Major

Emily Pascoe, Psychology Major

Lauren Brady, Microbiology Major

Advisor(s): Jennifer Quinn, Department

of Psychology

Daniel Kochli, Department of Psychology

Amnestic Manipulations Fail to Disrupt the

Reconsolidation of Context Discrimination Fear

Memories

**A90** Shelby Lab, Psychology and Neuroscience Major Ethan Hollingsworth, Biology and

Neuroscience Major

Jaylen Perkins, Biology and Premedical Major

Laney Naille, Biology and Neuroscience Major

Rebecca William, Psychology and

Neuroscience Major

Lili Scarlato, Microbiology and Premedical Major

Kelsey Woods, Nutrition and Premedical Major

Rachel Sullivan, Psychology and Computer

Science Major

Molly McCudden, Chemical Engineering Major

Drew Schleicher, Biochemistry and

Neuroscience Major

Danielle Ross, Psychology and Neuroscience Major

Advisor(s): Jennifer Quinn, Department

of Psychology

Role of Orbitofrontal Cortex in Fear Memory

Reconsolidation following an

Unexpected Reactivation

**A91** Briana Levikov, Psychology and Premedical

Studies Major

Advisor(s): Jennifer Quinn, Department

of Psychology

Midazolam Has No Effect on Discrimination Fear

Memory Reconsolidation in Adolescent Rats

A92 Mallory Myers, Zoology and Neuroscience Major

Mallory Dunn, Zoology and Premedical Studies Major

Advisor(s): Jennifer Quinn, Department

of Psychology

The Effect of Extinction on the Destabilization of an

Overtrained Memory

A93 Lindsey States, Mathematics Education and

Mathematics Major

Advisor(s): Michael Todd Edwards, Teacher Education

Timing of Technology in the Classroom

A94 Kristina Taynor, Zoology and Environmental

Science Major

Advisor(s): David Berg, Department of Biology

Ashley Walters, Department of Biology

Genetic Diversity in the Threatened Freshwater Mussel

Lampsilis powellii

## SESSION A: 10:00 - 11:30 A.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

#### A95 Meredith Lloyd, Chemical and Paper

**Engineering Major** 

**Halle Miller,** Chemical and Paper Engineering Major **Chris Hill**, Chemical and Paper Engineering Major **Xin Dong**, Chemical and Paper Engineering Major

Danika Whalen, Chemical and Paper

**Engineering Major** 

Advisor(s): Catherine Almquist, Department of Chemical, Paper and Biomedical Engineering Justin Saul, Department of Chemical, Paper and Biomedical Engineering

Keratin-based Adsorbents for the Removal of Heavy Metals from Water

### A96 Emily Konrad, Microbiology Major

Cole Goodrich, Microbiology Major

**Jon Abell**, Biology Major **Sydney Arlis**, Biology Major

Annastasia Babcock, Biology Major

Allison Biedenharn, Microbiology Major

Amanda Burgess, Microbiology Major

Luke Carrafiello, Microbiology Major

Callen Conroy, Microbiology Major

Steven Madias, Biology Major

Cortney Mitchem, Microbiology Major

**Paolo Palacios**, Medical Laboratory Science Major **Julie Donna,** Microbiology and Environmental Science Major

Steph Smith, Microbiology Major

Advisor(s): Luis Actis, Department of Microbiology Mitchell Balish, Department of Microbiology Rebecca Balish, Department of Microbiology Mariah Squire, Department of Microbiology Hailey Riggs, Department of Microbiology Mystery DNA: A Three-Part Thriller Featuring

Jamie Berray, Nutrition and Public Health Major

Mycobacteriophage Clusters D, N, and A

Allison Henson, Nutrition Major

A97

**Advisor(s):** Jennifer Pate, Department of Kinesiology and Health

Analyzing the Effect of Gluten-free Flours on Blueberry Muffins

#### A98 Hannah Zerkle, Zoology and Environmental

Science Major

Advisor(s): Matthew McMurray, Department

of Psychology

Danielle Tapp, Department of Psychology Playing the Odds: Examining Decision Making Differences under Restricted Resources

#### A99 Gabrielle Fernandez, Psychology and Premedical

Studies Major

Ellee Raker, Psychology Major

Francesca Sciaccotta, Psychology and Biology Major

Advisor(s): Barbara Oswald, Department

of Psychology

The Effects of Stimulant Drugs on Alcohol Self-Administration, Motor Coordination, and Novel Object Recognition in C57BL/6J Mice

#### A100 Cody O'Donnell, Kinesiology Major

**Advisor(s):** Barbara Oswald, Department of Psychology

Effects of Anabolic Steroid Use on Emotion

#### A101 Sarah Wohl, Biology and Environmental

Science Major

Meghan Jones, Geography Major

Brooke Ecklar, Zoology and Environmental

Science Major

**Annie O'Brien**, Finance and Accountancy Major

Noah Miller, Economics and Accountancy Major

Landen Stair, Finance Major

Tim Supeck, Economics Major

Austin Rust, English Creative Writing Major

Nicholas Brown, Geography Major

Brandon Street, Geography Major

Advisor(s): Jerry Green, Department of Geography

Evaluation of Peffer Park Landscape

Site Characteristics

## SESSION A: 10:00 - 11:30 A.M.

### JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

A102 Jack Gruber, Zoology Major

**Denae Garcia**, Zoology Major **Caroline Kennedy**, Biology Major

**Advisor(s):** Susan Hoffman, Department of Biology The Effects of Natural Bottlenecking on the Genetic Diversity of Peromyscus leucopus in Michigan's Lower Peninsula

A103 Kyle Weaver, Mechanical Engineering and

Biochemistry Major

**Advisor(s):** Jeong-Hoi Koo, Department of Mechanical and Manufacturing Engineering Indentation Testing of Artificial Skin Samples Based on Magnetically-Active Elastomers

**A104** David Colston, Anthropology and Public

Administration Major

Advisor(s): Paul Flaspohler, Department

of Psychology

The Role of Government in Public Health

A105 Nick Baxter, Geology Major

Advisor(s): Mike Brudzinski, Department of Geology and Environmental Earth Science Characterizing Hydraulic Fracturing Induced Seismicity on a Network of Pre-Existing Faults in Harrison County, Eastern Ohio

A106 Stephanie Raudenbush, Athletic Training Major

Advisor(s): Eric Brooks, Department of Kinesiology

and Health

Triple Ipsilateral ACL Tear in Division I Softball Player

### SESSION B: 1:30 - 2:45 P.M.

### SHRIVER LOBBY

(See presenter index on pages 53 - 73)

**B01L Brandi McConahay**, Anthropology and Interactive

Media Studies Major

**Advisor(s):** Jeb Card, Department of Anthropology *Archaeological Pedagogy* 

**BO2L Amanda Burke**, International Studies Major

Caitlin McElligott, Anthropology Major

Alexander Polinsky, Business Economics Major

Rachel Silber, Public Health Major

My Story

Zaheer Choudhury, Microbiology and Premedical

Studies Major

Grace Hamilton, Business Economics Major

John Karikas, Biology and Premedical Studies Major

Lindsey Schad, Botany Major

"What Do You See When You See Me"

David Colston, Public Administration and

Anthropology Major

Amber Henderson, Marketing Major

Reeti Pal, Zoology and Premedical Studies Major

Chanell Upshaw, Microbiology and Premedical

Studies Major

My War, My Fight

Savannah Boerger, Zoology Major

Mona-Mar Juwillie, International Studies Major

Andrew Racadio, Biology Major

Rachel Serafin, Chemistry and Premedical

Studies Major

"Still I Rise"

Advisor(s): Cameron Hay-Rollins, Department

of Anthropology

Ann Elizabeth Armstrong, Department of Theatre Digital Storytelling as Part of a Community Based

Research Project: A Global Health Seminar

BO3L Lindsey Schad, Botany Major

Advisor(s): Cameron Hay-Rollins, Department

of Anthropology

Community-based Approaches to Alleviating Depression Among the Elderly in Rural India **BO4L Lindsey Schad**, Botany Major

Advisor(s): Cameron Hay-Rollins, Department

of Anthropology

Emerging Adult Healthcare Decision Making: A

Student Response to Mumps Cases at

Miami University

**B05L Lauren Antle**, Anthropology Major

Lyric Melendez, Psychology and Neuroscience Major

Zachary Capretta, Psychology Major

Terry Reid, Psychology Major

Advisor(s): Joseph Johnson Department

of Psychology

The Effects of Group Studying vs. Individual Studying

**B06L Miranda Oates**, Anthropology and Forensic

Science Major

Advisor(s): Jeb Card, Department of Anthropology

Analysis of Unprepared and Prepared Human

Osteological Collections: Assessment for Forensic

Anthropology Teaching

**B07L Miranda Oates**, Anthropology and Forensic

Science Major

Paulina Campos, Mathematics and Statistics Major

Grace Haring, Psychology Major

Advisor(s): Joseph Johnson, Department

of Psychology

Understanding Sociosexual Habits of

College Students

BO8L Nathaniel Liesch, Architecture Major

Advisor(s): Murali Paranandi, Department

of Architecture

Ghana Design+Build Performance Analysis

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

B01 Zoe Bolen, Microbiology Major

Advisor(s): D.J. Ferguson, Department

of Microbiology

Jeff Ringiesn, Department of Microbiology

Examination of a Putative Methyltransferase from
the Quaternary Amine Degrading Methanogen

Methanococcoides methylutens Strain Q3c

BO2 Nathan Burns, Biochemistry Major

Advisor(s): Katia Del Rio-Tsonis, Department

of Biology

The Role of miRNAs in Chick Retina Regeneration

BO3 Ethan DeVillez, Biology Major

Advisor(s): David Berg, Department of Biology

Steven Hein, Department of Biology

Ashley Walters, Department of Biology

Identification of Sphaeriid Clam Populations in the

Chihuahuan Desert

BO4 Kayla Bergmann, Biology Major

Clay Curts, Biology Major

Meghan Bowers, Microbiology Major

Advisor(s): Joyce Fernandes, Department of Biology

Aswati Subramanian, Department of Biology Remodeling of Drosophila Peripheral Nerve Ensheathment During Metamorphosis

B05 Julia Behrend, Biology Major

**Advisor(s):** Susan Hoffman, Department of Biology Joseph Baumgartner, Department of Biology *Environmental Effects on Peromyscus leucopus* 

**Populations** 

B06 Gil Phillips, Biology Major

Connor Hueslman, Biology Major

Advisor(s): Susan Hoffman, Department of Biology

Jeremy Papuga, Department of Biology Changes in Genetic Variability of Peromyscus maniculatus gracilis and Peromyscus leucopus noveboracensis in Northern Michigan over a Decade

B07 Morgan Amigo, Zoology Major

Advisor(s): Paul James, Department of Biology

Joe Powers, Department of Biology

Molecular and Functional Characterization of

Mouse Na+/H+ exchanger 11 (NHE11): a Role in Male

Reproduction?

B08 James Lichter, Biology Major

Advisor(s): Brian Keane, Department of Biology

Nancy Solomon, Department of Biology

Examining Male Sires of Unpaired Female Prairie Voles

(Microtus ochrogaster) Using Microsatellite Markers

BO9 Carsen Cash, Chemical and Paper Engineering Major

Kayla Thompson, Chemical and Paper

**Engineering Major** 

Advisor(s): Jason Berberich, Department of Chemical,

Paper and Biomedical Engineering

Jake Stapleton, Chemical, Paper and

Biomedical Engineering

Synthesis and Exploration of Protein-Polymer

Conjugates

**B10** Katherine Sieman, Biology and Premedical

Studies Major

Advisor(s): Carole Dabney-Smith, Department of

Chemistry and Biochemistry

Christopher Makaroff, Department of Chemistry

and Biochemistry

Katie Eudy, Department of Chemistry

and Biochemistry

Over-expression and Purification of Male Meiocyte

Death-Like Proteins (MMDL-1 and MMDL-2)

**B11** Tori Seto, Chemistry Major

Advisor(s): Benjamin Gung, Department of Chemistry

and Biochemistry

Ruoyu Ma, Department of Chemistry and Biochemistry

Synthesis and Testing of Novel NHC-Au(I) Catalysis

with Adamantyl Groups

**B12** Connor Henry, Chemistry Major

Advisor(s): Scott Hartley, Department of Chemistry

and Biochemistry

Synthesis of Thioether-Substituted Sanidic

Liquid Crystals

B13 Rathiesh Pandian, Chemistry Major

Advisor(s): Scott Hartley, Department of Chemistry

and Biochemistry

Gopi Nath Vemuri, Department of Chemistry

and Biochemistry

Analysis of Handedness of ortho-Phenylenes

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

B14 Brian Long, Chemistry Major

Advisor(s): Michael Kennedy, Department of Chemistry and Biochemistry Shenyuan Xu, Department of Chemistry and Biochemistry

GTP Hydrolysis Restoration in K-Ras Mutants Using Engineered GAP

B15 Aaron Simoni, Microbiology Major

**Advisor(s):** Christopher Makaroff, Department of Chemistry and Biochemistry

A Natural Antisense RNA Plays an Important Role in Arabidopsis thaliana Growth and Development

**B16** Alexandra Glinos, Spanish and Premedical

Studies Major

Advisor(s): Stacey Lowery Bretz, Department of

Chemistry and Biochemistry

Gregory Allen, Department of Chemistry and Biochemistry

Investigating General Chemistry Students' Misconceptions and Confidence Regarding Acid/Base Reactions

**B17** Rachel Serafin, Chemistry and Premedical

Studies Major

**Advisor(s):** Gary Lorigan, Department of Chemistry and Biochemistry

Daniel Drew, Department of Chemistry and Biochemistry

Probing the Secondary Structure of the S21 Pinholin Using Pulseed EPR ESEEM

**B18** Nick Frantz, Biochemistry and Spanish Major

Tessa Wadsworth, Chemistry and Premedical

Studies Major

Advisor(s): Gary Lorigan, Department of Chemistry

and Biochemistry

Andrew Craig, Department of Chemistry

and Biochemistry

Gunjan Dixit, Department of Chemistry

and Biochemistry

Studying KCNQ1 Structure and Dynamics Using

Electron Paramagnetic Resonance (EPR) Spectroscopy

B19 Adam Rivers, Biochemistry Major

**ADVISOR(S):** Michael Kennedy, Department of Chemistry and Biochemistry

Michelle Veite, Department of Chemistry

and Biochemistry

Transgenic Mouse Model for the Early Detection of Pancreatic Cancer

**B20** Silvi Bajrami, Biology and Premedical Studies Major

Advisor(s): Michael Robinson, Department of Biology

Creating a Fluorescent Detection System for

Photoreceptor Differentiation from Mouse Embryonic Stem Cells via CRISPR/Cas9

B21 Elaine Sidler, Biology and Neuroscience Major

Advisor(s): Michael Robinson, Department of Biology

Stephanie Padula, Department of Biology

Analysis of FGFR and PTEN Interaction in Lens

Development

B22 Haley Boardman, Chemistry Major

Collin Mullet, Biochemistry Major

Jacob Flum, Chemistry Major

Mara Viterisi, Chemistry and Premedical Studies Major

Olivia Rizzo, Biochemistry and Premedical

Studies Major

ADVISOR(S): Michael Crowder, Department of Chemistry

and Biochemistry

Climate Change and Its Effect on the Food Industry

Relating to Meat, Fish, and Corn

B23 Nicole Spellacy, Chemistry Major

Gregory Kuznieski, Chemistry and Premedical

Studies Major

Alec Krienen, Biochemistry Major

Gabriel Boris, Chemistry and Music Major

Nick Groth, Chemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Climate Change

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

B24 Alexandra Statczar, Chemistry Major

Thomas Schlueter, Chemistry Major

**Tian Feng**, Chemistry Major **Daniel Bussell**, Chemistry Major **Emily Sullivan**, Chemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry
CHM 191 Zyth and Zym

B25 Samantha Gawrys, Biology and Spanish Major

Ben Gilbert, Biology Major

Advisor(s): Michael Robinson, Department of Biology

Peipei Qi, Department of Biology

Loss of miRNA26 Causes Post-natal Cataracts in Mice

B26 Anna Porter, Biology Major

**Advisor(s):** Michael Robinson, Department of Biology

Phuong Lam, Department of Biology

Creating Mouse Eye Cup Cell Cultures with RPE

Lineage Tracing

B27 Savannah Boerger, Zoology Major

**Advisor(s):** David Russell, Department of Biology Habitat Value of Hueston Woods State Park for Migrant Passerines of Contrasting Diet Type

**B28** Sabato Sorice, Business Economics and Premedical

Studies Major

Advisor(s): David Russell, Department of Biology

Tracking the Oriole Bird

B29 Ashton Hall, Microbiology and Premedical

Studies Major

**Advisor(s):** Ann Rypstra, Department of Biology Sex-Specific Starvation-Induced Cannibalism

**B30** Megan Hansen, Biology and Premedical Studies Major

**Erica Edwards**, Economics Major **Vedha Nayak**, Economics Major

Advisor(s): Joseph Johnson, Department

of Psychology

Financial Risks in College Students

B31 Hannah Caroscio, Chemical and Paper

**Engineering Major** 

Hannah Caudill, Psychology Major

Maddie Black, Psychology Major

Kayla Elstien, Biology Major

Advisor(s): Joseph Johnson, Department

of Psychology

Richard Smith, Department of Psychology

Effects of Caffeine on Higher Cognitive Tasks

B32 Athena Chapekis, Sociology Major

Francessca Gallowan, Diplomacy and Global Politics

and Latin American, Latino/a, and Caribbean

Studies Major

Emily Myers, Psychology Major

**Juliana Rizzo**, Psychology and Spanish Major

**Advisor(s):** Joseph Johnson, Department

of Psychology

Participation in the Foreign Language Classroom

**B33 Sanchit Ram Arvind**, Mathematics and Statistics and

Quantitative Economics Major

**Advisor(s):** Tatjana Miljkovic, Department of Statistics *Modeling Extreme Losses Using Generalized Pareto* 

**Distributions** 

**B34 Nicklaus Roach**, Mathematics and Statistics Major

**Cristie Margerum,** Mathematics and Statistics Major **Advisor(s)**: Tatjana Miljkovic, Department of Statistics

Modeling Job Satisfaction in Southern Ohio

**B35** Mackenzie Trevethan, Psychology Major

Violette Hosey, Psychology and Premedical

Studies Major

Grace Melanson, Psychology Major

Advisor(s): Joseph Johnson, Department

of Psychology

Interoception and Objective Stress

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

**B36 Steven McPherson,** Chemical Engineering Major **Alexandra Contestable**, Psychology and

Neuroscience Major

**Lauren Poythress,** Psychology and Black World Studies Major

**Morgan Schroeder**, Biology and Premedical Studies Major

**Advisor(s):** Joseph Johnson, Department of Psychology

Response Dynamics in Implicit Racial Bias in Real World Scenarios

**B37** Spencer Milligan, Mechanical Engineering Major

Kirsten Fehlan, Psychology Major

Advisor(s): Joseph Johnson, Department

of Psychology

Relations Between Academic Factors and Social and Illegal Risks

B38 Rita Kou, Speech Pathology and Audiology MajorSamantha Becker, Speech Pathology and

Audiology Major

**Olivia Wnek**, Speech Pathology and Audiology Major **Advisor(s):** Donna Scarborough, Department of

Speech Pathology and Audiology

Michael Bailey-Van Kuren, Department of Mechanical and Manufacturing Engineering

Taylor Creech, Department of Speech Pathology and Audiology

Training Cup Prototype: Varied Viscosity Model

B39 Samantha Becker, Speech Pathology and

Audiology Major

**Rita Kou**, Speech Pathology and Audiology Major **Olivia Wnek**, Speech Pathology and Audiology Major **Advisor(s):** Donna Scarborough, Department of Speech Pathology and Audiology

speech Pathology and Audiology

Michael Bailey-Van Kuren, Department of Mechanical and Manufacturing Engineering

Taylor Creech, Department of Speech Pathology and Audiology

A Comparison of Measurements of a Pediatric Supplement: How Thin is Thin?

B40 Joslyn Andrews, Business Economics and

Marketing Major

Caitlin Sifuentes, Business Economics Major

Advisor(s): Megan Gerhardt, Department

of Management

How to Change Culture: A Case Study of Miami

University Greek Life

**B41** Tyler Latch, Finance Major

Chad Goss, Finance Major

Ethan Retcher, Finance and Accountancy Major

Advisor(s): Megan Gerhardt, Department

of Management

Exploring the Drivers and Trends of Engagement and

Perceived Value

B42 Samantha Youngwirth, Business Economics and

Finance Major

Lauren Nobile, Finance Major

**Blake Cortez**, Marketing and Spanish Major **Advisor(s):** Megan Gerhardt, Department

of Management

Gender Bias in the Workplace

**B43** Meena Bansal, Biology Major

Abigail Brown, Biology Major

Advisor(s): Janet Marshall, Department of Chemistry

and Biochemistry

Howard Vail, Department of Chemistry

and Biochemistry

Organic Chemistry Lab Development: Fischer

Esterification Utilizing Benchtop NMR

B44 Dillon Frank, Life Science - Chemistry Education Major

Nicholas Spurgus, Biology and Premedical

Studies Major

Advisor(s): Ellen Yezierski, Department of Chemistry

and Biochemistry

Justin Pratt, Department of Chemistry

and Biochemistry

Documenting Chemistry Teacher Growth: Changing

Descriptions of Symbolic, Macroscopic, and

Particulate Levels During Inquiry-Focused Professional

Development

## SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

B45 David Black, Information Systems Major
Jackie Challoner, Marketing Major
Madison Cain, Business Economics and East Asian
Languages and Cultures Major
Emma Reed, Accountancy Major
Advisor(s): Megan Gerhardt, Department
of Management

Implicit Biases in Business Organization Affiliation

B46 Micaela Wexler, Finance Major
Leah Sprock, Marketing Major
Danny Molloy, Finance Major
Advisor(s): Megan Gerhardt, Department
of Management
Attitudes on Disabilities and Accommodations in
Professional and Academic Settings

**B47 Emma Geary**, Psychology and English Professional Writing Major

**Advisor(s):** Keisha Wagers, Department of Psychology *Parenting, Empathy and Externalizing Behaviors* 

**B48 Robert Poth**, Biochemistry and Premedical Studies Major

**Advisor(s):** Richard Page, Department of Chemistry and Biochemistry Jamie VanPelt, Department of Chemistry and Biochemistry

Structural Characterization of Metallo-Beta Lactamases and Optimization of Novel Small Molecule Inhibitors

**B49 Brianna Minshall**, Psychology and Neuroscience Major Advisor(s): Ellen Yezierski, Department of Chemistry and Biochemistry
Jorge Torres, Department of Chemistry and Biochemistry
Learning in the Moment: Identifying and Improving
Student Conceptual Knowledge Construction in

General Chemistry

B50 Madison Cappas, Middle Childhood Education Major
Ellie Stillman, Middle Childhood Education Major
Emily Culberson, Middle Childhood Education Major
Mikala Popovec, Middle Childhood Education Major
Britt Hochstetler, Middle Childhood Education e Major
Advisor(s): Michael Todd Edwards, Department of
Teacher Education
Artistically Replicating Miami University Landmarks
using Geometric Software

B51 Chloe Dabrowski, Middle Childhood Education Major
Jade Tailor, Middle Childhood Education Major
Meredith Schmitt, Middle Childhood Education Major
Brandon Stradling, Middle Childhood Education Major

**Advisor(s):** Michael Todd Edwards, Department of Teacher Education

Geometric Modeling of Everyday Objects using Mathematics Software

**B52** Paige Osterwisch, Middle Childhood Education Major Kelsey Borgarding, Middle Childhood Education and Anthropology Major

Erika Nisbet, Middle Childhood Education Major Corey Manning, Middle Childhood Education Major Advisor(s): Michael Todd Edwards, Department of Teacher Education Real Life Interpretations of Coding

B53 Craig Hanson, Engineering Management and Manufacturing Engineering Major
Advisor(s): Muhammad Jahan, Department of Mechanical and Manufacturing Engineering Investigating Tool Wear and Surface Finish in the Machining of Titanium Alloy

**B54** Alex Mazursky, Mechanical Engineering and Energy Major

**Advisor(s):** Jeong-Hoi Koo, Department of Mechanical and Manufacturing Engineering

Design and Performance Evaluation of a Miniature

Haptic Actuator based on Electrorheological Fluid

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

- B55 Nicholas Vrzal, Middle Childhood Education Major Matthew Sheely, Middle Childhood Education Major Kaleb Gauvey, Middle Childhood Education Major Advisor(s): Michael Todd Edwards, Department of Teacher Education Simplicity: The Artistic Ability of Mathematics and Technology
- B56 Carley Taggart, Middle Childhood Education Major
  Brooke Skelly, Middle Childhood Education Major
  Hannah Lentz, Middle Childhood Education Major
  Samantha Black, Middle Childhood Education Major
  Advisor(s): Michael Todd Edwards, Department of
  Teacher Education
  Art Recreation in Primary and Secondary Education
  Using Online Software
- **B57** Kailee Colter, Psychology Major
  Advisor(s): Alexandria Intorcio, Department
  of Psychology
  Social Influences of College Organizations: The Effects
  of Conformity on Self Esteem
- **B58** Virginia Hollatz, Psychology Major
  Advisor(s): Yvette Harris, Department of Psychology
  Seham Almutairi, Department of Psychology
  Exploring the Use of Digital Technology in the Lives of
  Homeschooled Children
- **B59** Aldiyar Kenes, Mechanical Engineering Major Advisor(s): James Moller, Department of Mechanical and Manufacturing Engineering

  Investigation of Water Properties by Atomistic

  Simulation
- B60 John Germano, Psychology Major
  Advisor(s): Kurt Hugenberg, Department
  of Psychology
  Allen McConnell, Department of Psychology
  Paige Lloyd, Department of Psychology
  Don't Lie to Me: Social Exclusion Influences the Ability
  to Detect Lies

- **B61 Robert White**, Biology and Psychology Major
  Austin Nader, Psychology and Neuroscience Major
  Jack Frankel, Psychology and Premedical
  Studies Major
  Advisor(s): Anna Radke, Department of Psychology
  Aversion-resistant Alcohol Drinking in Male and
  Female Mice
- B62 Victoria Colvin, Psychology Major
  Emily Blumenthal, Psychology Major
  Luke Evans, Psychology Major
  Caitlyn Jones, Psychology Major
  Tyler Schumacher, Psychology Major
  Jessica Shields, Psychology Major
  Advisor(s): Kurt Hugenberg, Department
  of Psychology
  Jonathan Kunstman, Department of Psychology
  Steven Almaraz, Department of Psychology
  Jason Deska, Department of Psychology
  The Effects of Face Inversion on Attention to the Eyes
  and the Desire to Interact Depend on Target Race
- **B63** Reeti Pal, Zoology and Premedical Studies Major
  Advisor(s): Paul Flaspohler, Department of Psychology
  Model to Decrease Malnutrition due to Food Insecurity
- **B64** Megan Perry, Psychology Major
  Advisor(s): Elizabeth Kiel-Luebbe, Department of Psychology
  The Role of Fearful Temperament and Maternal Control Behavior on the Development of Self-Consciousness in Toddlerhood
- B65 Kevin Summers, Psychology and Premedical Studies Major
  Advisor(s): Kurt Hugenberg, Department of Psychology
  Steven Almaraz, Department of Psychology
  Do You Trust Me? Trustworthiness and Dominance Cues Lie in Separate Regions of the Face
- Maggie Winstel, Psychology and Sustainability Major
   Advisor(s): Amanda Diekman, Department
   of Psychology
   Tessa Benson-Greenwald, Department of Psychology
   Aimee Belanger, Department of Psychology
   Proactive Personality and Satisfaction in STEM Fields

## SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

**B67** Madeline Lundin, Psychology Major

Advisor(s): Kurt Hugenberg, Department

of Psychology

Jason Deska, Department of Psychology

Facial Width-to-Height Ratio Biases Job Selection

**B68 Grace Campe**, Psychology Major

Katie Kowalski, Psychology Major

Advisor(s): Amanda Diekman, Department

of Psychology

Tessa Benson-Greenwald, Department of Psychology

Melissa Fuesting, Department of Psychology

Reactions to Mistakes

**B69** In Hong Lei, Public Administration Major

Advisor(s): Mark Morris, Department of

Political Science

Should Government Intervene in the Economy During

Economic Recession?

B70 Chanell Upshaw, Microbiology and Premedical

Studies Major

Advisor(s): Paul Flaspohler, Department of Psychology

Best Buds: Regulations on Marijuana Use and

Possession between the Netherlands versus the

**United States** 

B71 Ashley Albin, Nursing Major

Courtney Strassburger, Nursing Major

Oliva Bowley, Nursing Major

MacKenzie Hickman, Nursing Major

Samantha Davis, Nursing Major

Advisor(s): Eyad Musallam, Department of Nursing

Interventions to Prevent UTI's in the ICU

B72 Katy Alley, Nursing Major

Christian McLaughlin, Nursing Major

Elizabeth Ingram, Nursing Major

Trevor Shelton, Nursing Major

Kaela Ghent, Nursing Major

Advisor(s): Eyad Musallam, Department of Nursing

The Effectiveness of Using Turn Teams to Prevent

Pressure Ulcers

B73 Brittany Goad, Nursing Major

Claire Uwingeneye, Nursing Major

Eulalia Lopez Gonzalez, Nursing Major

Maria Lopez Gonzalez, Nursing Major

Patricia Koranteng, Nursing Major

Advisor(s): Eyad Musallam, Department of Nursing

Using Technological Reminders to Improve

Compliance among Mental Health Patients: An

Evidence-based Paper

B74 Megan Knight, Nursing Major

Corrie Patrick, Nursing Major

Allison Millhouse, Nursing Major

Morgan Heck, Nursing Major

Carrie Bartels, Nursing Major

Advisor(s): Eyad Musallam, Department of Nursing

Power of CAM

B75 Lulu Abdun, Psychology Major

Advisor(s): Vaishali Raval, Department of Psychology

Timothy Ovia, Department of Psychology

Public Discourses About Race in the United States

**B76** Le'Andra Wilson, Nursing Major

Maria Pena-Lopez, Nursing Major

**Ling Lin**, Nursing Major

Samantha Short, Nursing Major

Kayla Ball, Nursing Major

Advisor(s): Eyad Musallam, Department of Nursing

The Efficacy of Sex Education Programs in Promoting

Safer Sex Practices among Teens in USA

B77 Tisa Williams, Nursing Major

Dale Richter, Nursing Major

Kristen Davis, Nursing Major

Danielle Hale, Nursing Major

Kamari Blair, Nursing Major

Advisor(s): Eyad Musallam, Department of Nursing

Comprehensive Sex Education

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

**B78** Bridget Martin, Nursing Major

**Kimberly Richardson**, Nursing Major **Brittany Chasteen**, Nursing Major

Kaitlin Ball, Nursing Major

Brittney Wasson, Nursing Major

**Advisor(s):** Eyad Musallam, Department of Nursing Reducing Alcohol Use Among College Students

Through On-Campus Interventions

B79 Taylor Lambert, Nursing Major

**Ashley Selby**, Nursing Major **Benjamin Proud**, Nursing Major

**Brook Dietz**, Nursing Major

Ashley King, Nursing Major

**Advisor(s):** Eyad Musallam, Department of Nursing Does the Use of Simulation as an Educational Tool Improve Undergraduate Nursing Students Knowledge and Skills?

**B80 Jennifer Rub**, Microbiology Major

Kathy Everson, Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Day-and-Night Prokaryotic Diversity in the Caribbean

**B81** Jessica Simon, Microbiology Major

Ciara Lawson, Microbiology Major

Thatcher Creber, Biology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Microorganism Biodiversity and Nutrient

Availability Near Populated Shorelines

**B82** Krystina Hird, Biochemistry and Botany Major

Advisor(s): Carole Dabney-Smith, Department of

Chemistry and Biochemistry

C. Paul New, Department of Chemistry

and Biochemistry

The Role of the Transmembrane Glutamate in Assembly of the Chloroplast Twin Arginine Transport

Pathway Component Tha4

B83 Natalie Briggs, Nutrition Major

Nikki Finkenthal, Nutrition Major

Advisor(s): Jennifer Pate, Department of Kinesiology

and Health

The Effect of Fat Substitutes in Chocolate Cake

B84 Madeline Engelking, Nutrition Major

Amy Shomo, Nutrition Major

Advisor(s): Jennifer Pate, Department of Kinesiology

and Health

The Effect of Black Beans as a Flour Substitute in

Brownies

B85 Allyson McArthur, Nutrition Major

Clare Howard, Nutrition Major

Advisor(s): Jennifer Pate, Department of Kinesiology

and Health

The Impact of Gluten In Baking

B86 Sarah Wyand, Nutrition and Premedical Studies Major

Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Are College Students Playing Hard So That They Can

Drink Harder?

B87 Joshua Trimboli, Biology Major

Rachel Frankhauser, Biology and Sustainability Major

Jack Haught, Economics and Supply Chain and

Operations Management Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Chlorophyll A at a 1% PAR

B88 Sarah Wilson, Microbiology Major

Kayla Brown, Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Alpha and Beta Diversity In Water Column

Surrounding Puerto Rico

B89 Keiko Wilkins, Biology Major

Koby Schneider, Mechanical Engineering Major

Trevor Holm, Biology Major

Advisor(s): Rachael Morgan-Kiss Department

of Microbiology

SEA Miami: Factors Affecting Zooplankton Biodensity and Diversity in the Coastal and Open Waters around

Puerto Rico

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

B90 Keiko Wilkins, Biology Major

Sarah Hiner, Medical Laboratory Science and

Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: The Diversity of Photosynthetic and Heterotrophic Microorganisms in a Transect of San

Juan Harbor

B91 Keiko Wilkins, Biology Major

**Advisor(s):** Craig Williamson, Department of Biology The Effects of Oxygen Depletion on Abundance and Vertical Distribution of Calanoid Copepods, Daphnia and Cyclopoid Copepods

B92 Abigail Weiland, Athletic Training Major

Advisor(s): Eric Brooks, Department of Kinesiology

and Health

Lumbar Facet Syndrome in a Synchronized Skater

B93 Netanya Lane, Political Science Major

Advisor(s): Rodney Coates, Department of Black

World Studies Program

Social Construct of Black Women

**B94** Bethany Strauss, Social Work Major

Advisor(s): Leah Wasburn-Moses, Department of

**Educational Psychology** 

Foster Care, Kinship Care, and Adoption Preservice

Training Youth Version

B95 Allie Shea, Psychology Major

Advisor(s): Virginia Wickline, Department

of Psychology

Intercultural Competence

**B96** Emily Konrad, Microbiology Major

Cole Goodrich, Microbiology Major

Jon Abell, Biology Major

Sydney Arlis, Biology Major

Annastasia Babcock, Biology Major

Allison Biedenharn, Microbiology Major

Amanda Burgess, Microbiology Major

Luke Carrafiello, Microbiology Major

Callen Conroy, Microbiology Major

Steven Madias, Biology Major

Cortney Mitchem, Microbiology Major

Paolo Palacios, Medical Laboratory Science Major

Julie Donna, Microbiology and Environmental

Science Major

Steph Smith, Microbiology Major

Advisor(s): Luis Actis, Department of Microbiology

Mitchell Balish, Department of Microbiology

Rebecca Balish, Department of Microbiology

Mariah Squire, Department of Microbiology

Hailey Riggs, Department of Microbiology

Mystery DNA: A Three-Part Thriller Featuring

Mycobacteriophage Clusters D, N, and A

B97 Natalia Kellamis, Chemistry Education Major

Advisor(s): Ellen Yezierski, Department of Chemistry

and Biochemistry

From NSES to NGSS: How to Evaluate

and Respond to Changing Curricula in High

School Chemistry

B98 Thomas Farnbacher, Microbiology Major

Erin McGovern, Kinesiology Major

Advisor(s): Li Zhou, Department of Psychology

How Individuals Differentiate in Proactive Interference

Inhibition

**B99 Kyle Schulte**, Biochemistry and Neuroscience Major

Advisor(s): Robin Thomas, Department of Psychology

Audrey Weil, Department of Psychology

Individual Differences in Working Memory and Belief

Bias Reflected in Fronto-Parietal Coherence

### SESSION B: 1:30 - 2:45 P.M. JOHN DOLIBOIS ROOM

(See presenter index on pages 53 - 73)

B100 Hannah Kempf, Geology Major

Advisor(s): Carrie Tyler, Department of Geology and

**Environmental Earth Science** 

Using Food Webs to Examine Ecosystem Dynamics during Biotic Invasions in Late Ordovician Shallow

Communities

**B101** Benjamin Jackson, Electrical Engineering and

**Energy Major** 

Bailey Hall, Electrical Engineering Major

Kyle Smith, Electrical Engineering Major

Advisor(s): Mark Scott, Department of Electrical and

Computer Engineering

Design and Optimization of a Portable, Off-Grid

Photovoltaic Energy System for an Irrigation System

B102 Max Leveridge, Environmental Earth Science and

Environmental Science Major

Advisor(s): Mike Brudzinski, Department of Geology

and Environmental Earth Science

Improved Seismological and Geological

Characterization of Seismicity Induced by Wastewater

Disposal Near Marietta, Ohio

**B103 Rebeca Garcia De Jesus**, Physics and French Major

Kon Grewal, Kinesiology and Premedical Studies Major

Danielle Lott, Psychology and Neuroscience Major

Juliana Rizzo, Psychology and Spanish Major

Advisor(s): Vrinda Kalia, Department of Psychology

Karthik Vishwanath, Department of Physics

Utilizing FNIRS as a Marker to identify Risk Taking in

Males Post Stress Induction

B104 Mason Tate, Biochemistry Major

Jayeola Apapa, Biochemistry Major

Allison Peguero, Biochemistry and

Neuroscience Major

Eric Timmons, Biochemistry Major

Kendall Smith, Chemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Antibiotic Resistance

B105 Rachel Polak, Biochemistry Major

Quinn Kistenfeger, Biochemistry Major

Haley Ferguson, Biochemistry Major

Advisor(s): Ann Hagerman, Department of Chemistry

and Biochemistry

Chemical Models of Tannin Biodegradation

B106 Jason Flint, Biology Major

Durga Samanthula, Microbiology Major

Advisor(s): Tracy Haynes, Department of Biology

Pi3K Induces Retinal Regeneration in

Embryonic Chicks

### SESSION C: 3:00 - 4:30 P.M. SHRIVER LOBBY

(See presenter index on pages 53 - 73)

CO1L Brandi McConahay, Anthropology and Interactive

Media Studies Major

Anglo-Saxon Mortuary Archaeology

Kelly Marcus, Anthropology Major

Medical Decision Making Among

Homeless Populations

Gwen Lloyd, Anthropology Major

Discovering the Past

Demi Dilenge, Anthropology and Psychology Major

This is Caroline

Savana Rosalez, Anthropology and

Psychology Major

Deciding what is Healthy and Unhealthy Play

for Children

David Colston, Anthropology and Public

Administration Major

This is Juan Garcia

Caitlin McElligott, Anthropology and History Major

The Complex Problems of Single Mothers of Color

Advisor(s): Cameron Hay-Rollins, Department

of Anthropology

Public Anthropology: Making Scholarly

Research Accessible

CO2L Emma Brzezinski, Anthropology Major

Nicole Schapker, Anthropology and

Biochemistry Major

Advisor(s): Linda Marchant, Department

of Anthropology

Gombe Chimpanzee Termite Fishing Behavior: Using

Noldus Observer Software to Examine Laterality

CO3L Erika Jeffers, Microbiology and Premedical

Studies Major

Quentin Stickley, Anthropology Major

Advisor(s): Melissa Rosenzweig, Department

of Anthropology

Archeobotanical Analysis from Ziyaret Tepe

CO4L James Harris, Individualized Studies - Western

Program Major

Advisor(s): Christopher Meyers, Department

of Biology

Urbanization's Effect on Gray Squirrel

Foraging Behavior

CO5L Jason Simpson, Interactive Media Studies Major

Advisor(s): Murali Paranandi, Department

of Architecture

Sequence Site

CO6L Elena Penhos, Biology and Neuroscience Major

Danny Heller, Marketing Major

Advisor(s): Matthew McMurray, Department

of Psychology

Danielle Tapp, Department of Psychology

Pick a Prize: Influence of Reward Type on Impulsive

Decision Making

CO7L Antonia Caba, Public Health Major

Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Exploring the Relationship between Body Image and Alcohol Consumption among Sorority Members and

Non-members

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

CO1 Margaret Carney, Biology Major

Christine Clark, Biology and Neuroscience Major
Advisor(s): Kathleen Killian, Department of Biology
Mollie Sorrell, Department of Biology
The Role of the Enzyme Phenoloxidase in the Immune
Function and Aggressive Behavior of the Cricket
Acheta Domesticus

CO2 Kendall Smith, Chemistry and Premedical

Studies Major

**Ross Rybakowicz**, Biology and Premedical Studies Major

**Advisor(s):** Kathleen Killian, Department of Biology Mollie Sorrell, Department of Biology *Junctional Communication in the Neurogenic Niche* 

CO3 Alexandra Unger, Biology and Premedical

Studies Major

**Kelsy Schultz**, English Creative Writing and Premedical Studies Major

**Elizabeth Jacobs**, Biology and Premedical Studies Major

**Advisor(s):** Kathleen Killian, Department of Biology Kathryn Kohl, Department of Biology Effects of Cold Stress on Reproductive Behavior in Male Acheta domesticus Crickets

CO4 Zachary Fields, Biology Major

**Advisor(s):** Michael Robinson, Department of Biology Stephanie Padula, Department of Biology Creation of a Transgenic Mouse Line with Tamoxifen-Induced Cre Expression in the Lens

**C05 Justin Poth**, Biochemistry and Premedical Studies Major

Emma Buck, Biology and German Major

Advisor(s): Michael Robinson, Department of Biology

Brad Wagner, Department of Biology Phoung Lam, Department of Biology

Unlocking Our Inner Newt: CRISPR/Cas9 Mediated Retina Pigmented Epithelium to Neural Retina Trans-Differentiation **C06 Malory Owen**, Zoology and Environmental Science Major

Advisor(s): Nancy Solomon, Department of Biology Brian Keane, Department of Biological Sciences Connor Lambert, Department of Biology Effects of Vegetation Characteristics on Nest Site Selection and Reproduction of Female Prairie Voles (Microtus ochrogaster)

CO7 Taft Marsh, Botany Major

**Advisor(s):** Brian Grubb, Department of Biology Daniel Gladish, Department of Biology *Audubon Ash Tree Project* 

CO8 Leah Davey, Biology Major

**Advisor(s):** Richard Moore, Department of Biology Bao Tram Hoang, Department of Biology Distribution and Frequency of Red and Yellow Papaya Alleles in Central America

CO9 Kyle Bueter, Botany Major

**Advisor(s):** Richard Moore, Department of Biology Taylor Chae, Department of Biology *Epigenetic Modification of Sex Expression in Papaya* 

**C10 Avan Colah**, Biology and Premedical Studies Major **Advisor(s):** Richard Bretz, Department of Chemistry and Biochemistry

Marcia Lee, Department of Microbiology Characterization of an Anti-Fungal Compound in Aloe Arborescens

C11 Hailey Hirata, Biochemistry Major

**Advisor(s):** Richard Bretz, Department of Chemistry and Biochemistry

Marcia Lee, Department of Microbiology Isolation of Potential Anti-fungal Compound(s) from Aloe Barbadensis

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

C12 Michael Strickley, Biology Major

**Advisor(s):** Richard Bretz, Department of Chemistry and Biochemistry

The Uptake of Phosphate and Nitrate Ions in Carex comosa and Carex hysterencia

**C13 Bri Cooper**, Environmental Earth Science and Sustainability Major

Sean Davis, Earth Science Education Major

Kimberly Sprowles, Earth Science Education Major

Jessica Goldstein, Geology Major

Advisor(s): Brian Currie, Department of Geology and

Environmental Earth Science

Patrick Cullen, Department of Geology and

Environmental Earth Science

Identifying Structural Features for the Southern Extent of the Rome Trough in Gilmer County, West Virginia

C14 Brianne Safer, Psychology Major

Marie Yamada-Killilea, Psychology Major

Advisor(s): Amanda Diekman, Department

of Psychology

Melissa Fuesting, Department of Psychology Tessa Benson-Greenwald, Department of Psychology Preferred Traits of Science, Technology, Engineering, and Mathematics Role Models

C15 Kiley Duhn, Accountancy and Economics Major

Nikki Weaver, Marketing Major

Samantha Bosse, Economics Major

Jacob Brown, Supply and Operations Management

and Information Systems Major

Advisor(s): Megan Gerhardt, Department of

Management

Major Motivations: The Choice Behind a Business Major

C16 Jordan Lilly, Marketing Major

Mackenzie Craney, Accountancy Major

Giuliana Pudlo, Supply Chain and Operations

Management Major

Mary McKenna, Accountancy Major

Advisor(s): Megan Gerhardt, Department

of Management

Ethical Behavior Inside and Outside of the Classroom

C17 Graham von Carlowitz, German Major

Advisor(s): Mila Ganeva, Department of German Exploring Germany's Immigration History in Light of the Refugee Crisis: An Examination of Integration

C18 Kira Osowski, Psychology Major

**Advisor(s):** Vrinda Kalia, Department of Psychology Silence is Golden? Examining the Impact of Silence versus Brief Mindfulness on Risky Decision Making

C19 Bryan Von Der Vellen, Psychology and Premedical

Studies Major

Jose Jacobo, Psychology Major

Kira Osowski, Psychology Major

**Advisor(s):** Vrinda Kalia, Department of Psychology Stressed Out: Examining the Effect of Stress on

Executive Functioning in Females

C20 Zachary Digby, Biochemistry Major

Advisor(s): Dominik Konkolewicz, Department of

Chemistry and Biochemistry

Progyateg Chakma, Department of Chemistry and

Biochemistry

New Dynamic Materials using Reversible Maleimide

Thiol-Michael Chemistry

**C21 Elizabeth Foster**, Chemistry and Neuroscience Major

Advisor(s): Dominik Konkolewicz, Department of

Chemistry and Biochemistry

Importance of Network Architecture: Healable, Malleable, Tough and Stable Soft Materials using Orthogonal Dynamic Bonds in an Interpenetrating Network

C22 Carrie Dobbs, Chemistry and Premedical

Studies Major

Advisor(s): Stacey Lowery Bretz, Department of

Chemistry and Biochemistry

Timothy Abell, Department of Chemistry

and Biochemistry

Investigating Students' Misconceptions about

Concentration of Aqueous Solutions

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

**C23 Katie Ferguson**, Chemistry and Premedical Studies Major

Advisor(s): Stacey Lowery Bretz, Department of Chemistry and Biochemistry
Maia Popova, Department of Chemistry
and Biochemistry
General Chemistry Students' Abilities to Translate
Between Symbolic and Space-filling Representations
When Reasoning About Bonding in a Combustion

C24 Kevin Rarden, Chemistry Education Major
Advisor(s): Stacey Lowery Bretz, Department of
Chemistry and Biochemistry
Timothy Abell, Department of Chemistry
and Biochemistry
Multiple Representations of Bonding: An Analysis of
Students' Ideas about Molecular Polarity

C25 Lydia Schneider, Zoology and Neuroscience Major Anelise Kollias, Zoology Major David Sullivan, Biology Major Advisor(s): Lori Isaacson, Department of Biology Jessie Maloney, Department of Biology

Plasticity of Glial Cells in the Spinal Cord Following
Injury of Peripheral Axons

C26 Mengyang Xu, Chemistry Major

Reaction

Meng Lu, Chemistry Major

**Advisor(s):** Jiangjiang Zhu, Department of Chemistry and Biochemistry

Evaluating Metabolic Response of Human Gut Cells Effected by Polyphenols Influenced Gut Bacteria using Targeted LC-MS/MS Metabolic Profiling

C27 Danyelle Roan, Microbiology Major
Advisor(s): Matthew McMurray, Department
of Psychology
Danielle Tapp, Department of Psychology
Oxytocin and Its Influence on Gambling Behavior

**C28 Hannah Woods**, Psychology and Classical Humanities Major

**Advisor(s):** Terri Messman-Moore, Department of Psychology

Lee Eshelman, Department of Psychology

Lifetime Sexual Violence and Alexithymia: The

Mediating Role of Dissociation, Thought Suppression,
and Shame

**C29** Caitlyn Jones, Psychology and English Professional Writing Major

**Advisor(s):** Molly Metz, Department of Psychology What We Talk About When We Talk About Trigger Warnings: Defining a Problem

C30 Lamuel Bean, Public Health Major
Advisor(s): Rose Marie Ward, Department of
Kinesiology and Health
Correlation Between Alcohol Consumption and Basal
Metabolic Rate

C31 Olivia Callahan, Kinesiology Major
Advisor(s): Rose Marie Ward, Department of
Kinesiology and Health
Determining the Relationship Between Greek and
non-Greek members and Their Likelihood of Having a
Second Social Media Account (Finsta)

C32 Alyssa Fuhr, Kinesiology Major
Advisor(s): Rose Marie Ward, Department of
Kinesiology and Health
How Does Chronotype Influence Alcohol
Consumption Among College Students?

C33 Jourdan Greenlee, Kinesiology and Nutrition Major Advisor(s): Rose Marie Ward, Department of Kinesiology and Health
Influence of Age Difference on Alcohol Use within Couples

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

C34 Micah Morris, Biochemistry Major

**Advisor(s):** David Tierney, Department of Chemistry and Biochemistry

Whitney Craig, Department of Chemistry and Biochemistry

Modeling Matrix Metalloproteinase Inhibition with Spectroscopic Study of Carbonic Anhydrase

C35 Caroline Roti, Chemical and Paper Engineering Major Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Bars, Booze, and Benzodiazepine: An Examination of Alcohol and Xanax

C36 Isaiah Stewart, Environmental Earth Science Major

Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Drinking Away the Pain: Exploring the Relation between Depression and Alcohol Consumption among Men and Women

C37 Nick Vanderhoof, Kinesiology Major

Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Sexual Assault Victimization among Varied Personality Traits

**C38 Jacqueline Ziegman**, Kinesiology and Premedical Studies Major

Advisor(s): Rose Marie Ward, Department of

Kinesiology and Health

Perceived Importance of Alcohol and Peer Pressure

Predict Alcohol Consumption among

College Students

C39 Claudia Worley, Chemistry Major

Advisor(s): David Tierney, Department of Chemistry

and Biochemistry

Nuclear Magnetic Resonance (NMR) Temperature Dependent Studies of Five Coordinate Cobalt (II) Complexes C40 Jenna Rajczyk, Kinesiology Major

Nathan Giangardella, Kinesiology Major

Advisor(s): Kyle Timmerman, Department of

Kinesiology and Health

Victoria Warren, Department of Kinesiology

and Health

Associations Among Indices of Physical and Cognitive

Function in Older Adults

C41 Lana Amer, Bioengineering Major

Advisor(s): Valerie Ubbes, Department of Kinesiology

and Health

Increasing Access to Pediatric Oral Health Education

C42 Martin Heidelman, Biological Physics Major

**Advisor(s):** Paul Urayama, Department of Physics *Time Gating Optimization for Measurements of* 

Cellular Autofluorescence

C43 John Bowman, Biology Major

Advisor(s): Karthik Vishwanath, Department

of Physics

Anthony Young, Department of Physics

In vivo Applications of Diffuse Optical Techniques

for Measuring Hemodynamics in Mouse Models of

Cerebral Stroke

C44 Adam Eggert, Biological Physics Major

Advisor(s): Karthik Vishwanath, Department

of Physics

Simmy Mirchandani, Department of Chemical and

Paper Engineering

Smartphone Spectroscopy for Measurement of

Diffuse Reflectance

C45 Megan Rigot, Nutrition Major

Connor Cashman, Kinesiology Major

Advisor(s): Kyle Timmerman, Department of

Kinesiology and Health

Predictors of Lean Body Mass and Function in

Older Adults

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

C46 Zachary Roebel, Kinesiology and Public Health Major Advisor(s): Valerie Ubbes, Department of Kinesiology and Health

Samantha Bettinger, Department of Kinesiology and Health

Vegetable Habits of Children: Frequency of Consumption and Social Modeling Correlates

**C47 Emma Geary**, Psychology and English Professional Writing Major

**Advisor(s):** Allen McConnell, Department of Psychology

Environmentally-friendly Behaviors in the Real World

C48 Michael Saaranen, Physics Major

Jacob McFarland, Physics Major

**Advisor(s):** Burcin Bayram, Department of Physics *Time-Resolved Laser-induced Molecular Fluorescence Spectroscopy* 

C49 Marian Kelley Patterson, University Studies Major Advisor(s): Karthik Vishwanath, Department of Physics

> Sara Zanfardino, Department of Physics Development and Testing of an Optical Method for Quantifying Flow in Turbid Media

C50 Marissa Lane, English Creative Writing and English Literature Major

**Advisor(s):** Joseph Bates, Department of English *Breaking the Mold: Redefining the Novel* 

C51 Olivia Lahey, Biology and Spanish Major
Advisor(s): David Beard, Department of Spanish
and Portuguese

Production of Subject-Verb Agreement in Second Language Learners of Spanish at Miami University

C52 JP Roach, Sport Leadership and Management Major Advisor(s): Helaine Alessio, Department of Kinesiology and Health

Heart Rate Variability

C53 Cailin Gatts, Kinesiology Major
Kristina Arslain, Nutrition Major

Advisor(s): Kevin Ballard, Department of Kinesiology and Health

Robert Duguid, Department of Kinesiology and Health

Craig Berry, Department of Kinesiology and Health Effect of Prior Aerobic Exercise on Plasma Endothelin-1 Responses to Prolonged Sitting in Healthy Men

**C54 Dillon Campbell**, Athletic Training Major

**Advisor(s):** Eric Brooks, Department of Kinesiology and Health

Chronic Exertional Compartment Syndrome in a Collegiate Swimmer: A Case Report

C55 Everett Ritter, Spanish Education and Spanish Major Advisor(s): David Beard, Department of Spanish and Portuguese

> A Comparative Analysis of Authentic vs. Inauthentic Text Syntax in the L2 Classroom

**C56 Naomi Wiater,** Spanish and Spanish Education Major **Advisor(s):** David Beard, Department of Spanish and Portuguese

The Implications of por and para in an L2 Spanish Classroom

C57 Jiayu Wu, Statistics Major

Lin Fang, Statistics Major

**Advisor(s)**: Tatjana Miljkovic, Department of Statistics Modeling Impact of Natural Disasters on Income Distribution in the United States

C58 Xiaoxiao Zhao, Statistics Major

Junrong Wu, Mathematics Major

**Advisor(s):** Tatjana Miljkovic, Department of Statistics Statistical Modeling the Inventory Allocation of Bay Area Bike Share

C59 Alan Tatro, Mathematics and Statistics Major
Advisor(s): Jing Zhang, Department of Statistics
Thomas Fisher, Department of Statistics
Bayesian Variable Selection in Time Series Regression
with an Application to Ecological Data

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

**C60** Audrey Short, Biochemistry Major

Advisor(s): Michael Kennedy, Department of

Chemistry and Biochemistry

William Joesten, Department of Chemistry

and Biochemistry

Examining Longitudinal Immunohistochemistry of Alpha and Beta Cells in the NOD-Mouse Model

C61 Kirsten Gonzales, Biochemistry Major

Advisor(s): Carole Dabney-Smith, Department of

Chemistry and Biochemistry

Qiangian Ma, Department of Chemistry

and Biochemistry

Characterization of the Chloroplast Twin Arginine

Transport Mutant, hcf106, Arabidopsis thaliana

**C62 Gwendolyn Thomas**, Biochemistry and Premedical

Studies Major

Advisor(s): Carole Dabney-Smith, Department of

Chemistry and Biochemistry

Aman Habtemichael, Department of Chemistry

and Biochemistry

Interaction Points between Stromally Exposed CpTatC

and Precursor Signal Peptide

C63 Elise Leonard, Chemistry and Premedical

Studies Major

Advisor(s): Neil Danielson, Department of Chemistry

and Biochemistry

Ashley Richardson, Department of Chemistry

and Biochemistry

Anion Exchange Chromatography of Sulfonated

Compounds Using a Protamine Coated Column

C64 Nachiket Potineni, Microbiology Major

Advisor(s): Katia Del Rio-Tsonis, Department

of Biology

Zeyu Han, Department of Biology

Knockdown and Knockout of DNMT3a Affects Chick

Eye Morphogenesis

**C65 Shelby Thompson**, Biochemistry Major

Julia Walton, Biochemistry Major

Kelsey Cottingim, Biochemistry Major

Lyndsey Gregerson, Biochemistry Major

Justin Gassaway-Steere, Biochemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Antibiotic Resistance: Why You Should Care

C66 Kenna Koehler, Biochemistry Major

Taylor Bussell, Chemistry Major

Maggie Feazell, Chemistry Major

Erin Lensmeyer, Chemistry Major

Nicole VanDoren, Biochemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Antibiotic Resistance in Healthcare

**C67** Matthew Kelly, Biochemistry Major

Patrick McHenry, Biochemistry Major

**Dylan Bailey Van-Kuren**, Biochemistry Major

Andrew Donahey, Chemistry Education Major

Zach Higgins, Biochemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Ellen Yezierski, Department of Chemistry and

Biochemistry

Exploring Fermentation Sciences in the Classroom

**C68 Sam George**, Biochemistry and Neuroscience Major **Aaron Abraham**, Biochemistry and Premedical

Adion Abianam, biochemistry and Fremedical

Studies Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

David Tierney, Department of Chemistry

and Biochemistry

Whitney Richert, Department of Chemistry

and Biochemistry

Overexpression, Purification and Kinetic

Characterization of Matrix Metalloproteinase

12 (MMP-12)

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

**C69** Zachary Adkins, Biochemistry Major

Advisor(s): Michael Crowder, Department of

Chemistry and Biochemistry

Alexander Bergstrom, Department of Chemistry

and Biochemistry

Mechanistic Studies of Metallo-\_-Lactamase Inhibitor

Aspergillomarasmine A (AMA)

C70 Emelia Acheampong, Nursing Major

Prisca Obih, Nursing Major

Victoria Bosomefi, Nursing Major

Linda Asomani, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

Does Early Tracheostomy Reduce the Length of Stay

in Intensive Care Unit?

C71 Addison Bryant, Nursing Major

Sarah Titterington, Nursing Major

Kylie Turoff, Nursing Major

Hanna Powers, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

Homebirth and Neonatal Outcomes

C72 Abby Cooper, Nursing Major

Nicoline Nshom, Nursing Major

Chanely Rodriguez, Nursing Major

Brittany Simpson, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

Misshapenness

C73 Dana Severin, Nursing Major

Josh Padgett, Nursing Major

Haylee Blevins, Nursing Major

Anna Fry, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

Protecting the Prostate

C74 Ashantia Collins, Psychology Major

Haleigh Lindner, Psychology Major

Sarah Moore, Psychology Major

Advisor(s): Amy Summerville, Department

of Psychology

Ryan Walker, Department of Psychology

Fate Perceptions and Counterfactual Thinking

C75 Storm Bollenbach, Nursing Major

Jane Wittman, Nursing Major

Doreen Aidoo, Nursing Major

Leah Glover, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

Medical CannaBLISS?

C76 Shelby Capitulik, Nursing Major

Sherry Akins, Nursing Major

Alain Oyeh, Nursing Major

Kristin Harbeson, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

TLC: Does Kangaroo Care Reduce the Effects of

Procedural Pain in Preterm Infants?

C77 Emily Cornett, Nursing Major

Emily Mossman, Nursing Major

Megan Wise, Nursing Major

Jamie Jones, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

*Is It Worth the Stick?* 

C78 Mary Truster, Nursing Major

Madison Bustle, Nursing Major

Leah Kreiner, Nursing Major

Advisor(s): Jennifer Rode, Department of Nursing

Easing Labor Pains with Essential Oils

C79 Jalen Noble, Psychology and Strategic

Communication Major

Alec Taylor, Kinesiology Major

Nick Schwabe, Psychology Major

Liam Byrne, History Major

Advisor(s): L. James Smart, Department

of Psychology

It's All in the Posture: Influence of Stance on

Adaptation and Performance in a Virtual Task

**C80 Nhat Pham**, Microbiology and Premedical

Studies Major

Daniel Jones, Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Influence of Biogeography vs. Day and

Night Cycles for Microbial Diversity in the Caribbean

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

**C81** Zachary Smith, Microbiology and Premedical Studies Major

Sean Graham, Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department of Microbiology

of Microbiology

SEA Miami: Measuring the Abundance and Diversity of Microbial Dark Matter in Marine Samples [Caribbean Sea, Puerto Rico]

C82 Andrew Woodruff, Microbiology Major

Zoe Bolen, Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Comparison of Microbial Diversity Nearshore [San Juan Harbor and Vieques] vs. Open

Ocean [Caribbean]

C83 Danielle Belzer, Speech Pathology and

Audiology Major

Advisor(s): Aaron Shield, Department of Speech

Pathology and Audiology

The Development of Joint Attention in a Bimodal Bilingual Child with Autism

C84 Wil Hughes, Speech Pathology and Audiology Major
Danielle Stelzer, Speech Pathology and

Audiology Major

Advisor(s): Aaron Shield, Department of Speech

Pathology and Audiology

Do Deaf Children with Autism Differ from Typicallydeveloping Deaf Children in their Use of the Face?

C85 Kristina Randall, Speech Pathology and

Audiology Major

Advisor(s): Aaron Shield, Department of Speech

Pathology and Audiology

Language Development in a Bimodal Bilingual Child with Autism

**C86** Marie Claire Papamarcos, Microbiology and Spanish Major

**Alex Lanoue,** Medical Laboratory Science and Biology Major

Thatcher Creber, Biology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Trends in Chlorophyll-a and Dissolved

Oxygen in the Water Column

C87 Benjamin Keller, Microbiology Major

**Brittany Nordhaus**, Psychology and Biology Major **Advisor(s):** Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Primary Driver of Copepod Diel Vertical Migration Pattern; Ultra-Violet Radiation Versus Predation in the Waters Surrounding Puerto Rico

**C88** Benjamin Keller, Microbiology and Premedical

Studies Major

Martha Carter, Microbiology and Premedical

Studies Major

**Advisor(s):** Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Comparing Community Composition of

Diatoms to Bacteria

**C89 Noah Ising**, Microbiology Major

Casey Horan, Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

Keely Icardi, Department of Microbiology

Isha Kalra, Department of Microbiology

SEA Miami: The Relationship of the Day and Night

Cycle and Nutrient Concentration on Bacterial

Diversity

**C90** Martha Carter, Microbiology and Premedical

Studies Major

Sarah Hiner, Medical Laboratory Science and

Microbiology Major

Advisor(s): Rachael Morgan-Kiss, Department

of Microbiology

SEA Miami: Phytoplankton Biodiversity: A Comparison

of Coastal and Open Ocean Waters

### SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

C91 Zev Cariani, Microbiology Graduate Student Jyoti Kashyap, Microbiology Graduate Student Simin Zhao, Geology Graduate Student Advisor(s): Rachael Morgan-Kiss, Department of Microbiology SEA Miami: Microbial Community Analysis of San Juan

Surface Transect Samples

C92 Joseph Baumgartner, Microbiology Major Meghan Bowers, Microbiology and Premedical Studies Major

Cassandra Worner, Microbiology and

Neuroscience Major

Advisor(s): Rachael Morgan-Kiss, Department of Microbiology

SEA Miami: Bacterial Diversity by Time of Day in Marine Samples Near Puerto Rico

Lauren Brady, Microbiology Major Katelyn Scheive, Psychology Major Advisor(s): Jennifer Quinn, Department of Psychology Brett East, Department of Psychology Contributions of the Medial and Lateral Entorihinal Cortex in the Acquisition of Fear Memory

C94 Tiffany Campbell, Biology, Psychology and Neuroscience Major

> Shelby Lab, Psychology and Neuroscience Major Ethan Hollingsworth, Biology and

Neuroscience Major

Victoria Mordzinski, Biology and Premedical Studies Major

Megan Perry, Psychology Major

Advisor(s): Jennifer Quinn, Department

of Psychology

Daniel Kochli, Department of Psychology The Role of NMDA Receptors in the Retrieval and Reconsolidation of Context Fear Discrimination Memory

Haleigh Lindner, Psychology Major Megan Perry, Psychology Major Jessica Genaro, Psychology Major Advisor(s): Jennifer Quinn, Department of Psychology Daniel Kochli, Department of Psychology Role of the VTA in the Destabilization of Established Fear Memories

**C96 Emily Konrad**, Microbiology Major Cole Goodrich, Microbiology Major Jon Abell, Biology Major Sydney Arlis, Biology Major Annastasia Babcock, Biology Major Allison Biedenharn, Microbiology Major Amanda Burgess, Microbiology Major Luke Carrafiello, Microbiology Major Callen Conroy, Microbiology Major Steven Madias, Biology Major Cortney Mitchem, Microbiology Major

Paolo Palacios, Medical Laboratory Science Major Julie Donna, Microbiology and Environmental Science Major Steph Smith, Microbiology Major

Advisor(s): Luis Actis, Department of Microbiology Mitchell Balish, Department of Microbiology Rebecca Balish, Department of Microbiology Mariah Squire, Department of Microbiology Hailey Riggs, Department of Microbiology Mystery DNA: A Three-Part Thriller Featuring Mycobacteriophage Clusters D, N, and A

C97 Bryn McElroy, Speech Pathology and Audiology Major

> Sarah Kingsbury, Speech Pathology and Audiology and Spanish Major

Megan Igel, Speech Pathology and Audiology Major Advisor(s): Aaron Shield, Department of Speech Pathology and Audiology

A Linguistic Analysis of Narratives Produced by Adolescents with High-Functioning Autism

## SESSION C: 3:00 - 4:30 P.M. JOHN DOLIBOIS ROOMS

(See presenter index on pages 53 - 73)

C98 Madeline DiFilippo, Accountancy and Political

Science Major

Advisor(s): Monica Schneider, Department of

Political Science

Running as a Woman: The Reality of Penalties Based

on Role Incongruity

C99 Nicholas Thomas, Sport Leadership and

Management Major

Advisor(s): Thelma Horn, Department of Kinesiology

and Health

An Investigation of Coaching Career Tracks in

Collegiate Basketball: Relationships to Gender and

Race/Ethnicity

C100 Troy Meyer, Biology Major

Advisor(s): Thomas Crist, Department of Biology

Michael Cunningham-Minnick, Department of Biology Effects of Water Body Type on Dragonfly

Community Composition

C101 Alex Mueller, Athletic Training Major

Advisor(s): Eric Brooks, Department of Kinesiology

and Health

Posterior Sternoclavicular Joint Dislocation During

Spring Football

C102 Charles Asselmeier, Zoology and Premedical

Studies Major

Jennifer Rowe, Biology and Premedical Studies Major

Advisor(s): Brad Wagner, Department of Biology

Michael Robinson, Department of Biology

Stephanie Padula, Department of Biology

Dissecting the Mechanism by which Pten Deficiency

Rescues Lens Development in Fgfr2 Deficient Mice

C103 Kimberly Bowman, Chemistry and

Neuroscience Major

Advisor(s): David Tierney, Department of Chemistry

and Biochemistry

The Effect of Ionic Liquids on Co(II) Complexes and

their Counter Ions

C104 Amanda Burke, International Studies Major

Advisor(s): Paul Flaspohler, Department

of Psychology

Cameron Hay-Rollins, Department of Anthropology

The Role of Educational Resource Centers in

Decreasing Infant Mortality

C105 Kole Sedlack, Biology Major

Arya Chalke, Microbiology Major

Justin Crookes, Biology and Psychology Major

Erin Enright, Biochemistry Major

Advisor(s): Joyce Fernandes, Department of Biology

Manipulation of EGF Ligands During Flight Muscle

Development in Drosophila

C106 Blake Rasor, Biology and Microbiology Major

**Advisor(s):** Michael Robinson, Department of Biology Developing an in vitro Assay for Transdifferentiation

between Retinal Cell Types

### **RECOGNITION:**

## Miami Mentors Engaging Students in Research

By Martha E. Weber

**Recognition: Miami Mentors Engaging Students in Research** 

Our 23rd annual undergraduate research forum embodies Miami's 2020 Plan unifying goal:" to promote a vibrant learning and discovery environment that produces extraordinary student and scholarly outcomes." In addition, undergraduate student research at Miami:

- Ensures vitality and sustainability by building a forward-looking, efficient, and caring culture that stimulates, recognizes, and rewards creativity, entrepreneurial thinking, and exemplary performance.
- Promotes a diverse culture of inclusion, integrity, and collaboration that deepens understanding and embraces intercultural and global experiences.

Our student presenters represent a wide range from first year researchers through seniors who are in various stages of developing their identity as a student scholar. During your visit to the oral and poster sessions we invite you to chat with these researchers about their unique experiences that have prepared them for future careers.

As a (Carnegie) Doctoral Intensive University, Miami attracts faculty members who have a passion for advanced research and scholarship, as well as a commitment to teaching. Miami consistently graduates the second highest number of science students among Ohio public universities.

Today and throughout the year, we hope you will take a few moments to recognize the truly amazing contributions from our dedicated faculty and staff who consistently include students in these crucial research partnerships that explore the process of learning.

The undergraduate research forum illustrates the strong commitment of Miami faculty to provide hands-on interactions with students in the role of teacher-mentor. Mentors recognized in this publication for their dedication to stimulate student inquiry-based learning are representative of the efforts of a myriad of faculty and staff providing research experiences inside and outside the classroom.

This emphasis on personal attention from faculty and graduate students introduces incoming students to examine the possibility of how to get started in research. For Miami upper class students, the opportunity to continue research involvement during their entire undergraduate experience allows numerous opportunities to expand knowledge in their chosen discipline.

<sup>2</sup>Miami recognized in STEM Jobs Magazine and online as part of the entire 2016-2017 list of STEM JobsSM Approved Colleges by Victory Media.

Key indicators that demonstrate the extent to which a school works to:

- 1. Provide opportunities for students to explore STEM subjects.
- 2. Promote partnerships that foster STEM literacy and connect classrooms to careers.
- 3. Ensure coursework and activities that have a focus on careers.

Promote STEM programs that actively attract and engage underrepresented student populations

<sup>3</sup>"Miami's "exceptionally strong commitment" to teaching has placed it first or second among public universities for the seventh year in a row in a U.S. News & World Report ranking. Miami is also regularly listed in Kiplinger's Personal Finance magazine, Forbes and the Fiske Guide as among the best quality/best value public colleges in the U.S.

<sup>&</sup>lt;sup>1</sup> http://miamioh.edu/ files/documents/2020plan/2020Plan 10-13.pdf

#### RESEARCH MENTORS

### 2017 Undergraduate Research Forum

**Anthropology** 

James S. Bielo Jeb Card

Cameron Hay-Rollins Linda Marchant Melisa Rosenzweig John Schaefer

**Architecture and Interior Design** 

Murali Parandi

Armstrong Institute for Interactive Media Studies

Eric Hodgson

**Biology** 

Joseph Baumgartner

David Berg Dawn Blitz Taylor Chae

Courtney Clark-Hachtel

Jon Costanzo Thomas Crist

Michael Cunningham-Minnick

Katia Del Rio-Tsonis Joyce Fernandes Melany Fisk JD Gantz Daniel Gladish Jake Godfrey

Shinjini Goswam Brian Grubb

Maria Gonzalez

David Gorchov

Zeyu Han Paul Harding

Tracy Haynes

Steven Hein Bao Tram Hoang Susan Hoffman Lori Isaacson Paul James

Carolyn Keiffer Kathleen Killian Kathryn Kohl

Brian Keane

Phuong Lam

Connor Lambert Richard Lee Chung Liang David Linz

Agustin Luz-Madrigal Jessie Maloney Richard Moore

Nancy Paola Ruiz-Echeverri

Stephanie Padula Jeremy Papuga Joe Powers Peipe Qi Valerie Rajathi Michael Robinson Amber Rock David Russell Ann Rypstra Minqian Shen Haifei Shi Nancy Solomon

Divyalakshmi Soundararajan

Michael Stanley Aswati Subramanian

Sean Taylor

Mollie Sorrell

Yoshinori Tomoyasu Mike Vanni Brad Wagner Ashley Walters James Wiebler

Tanner Williamson Craig Williamson Qi Zhu

**Black World Studies** 

Rodney Coates

Chemical, Paper and Biomedical Engineering

Catherine Almquist Jason Berberich Simmy Mirchandani Andrew Paluch Justin Saul Jake Stapleton **Chemistry and Biochemistry** 

Timothy Abell Gregory Allen

Abdullah Bilal Altundas Alexander Bergstrom

Richard Bretz
Progyateg Chakma
Tafadzwa Chihanga
Andrew Craig
Whitney Craig

Michael Crowder

Carole Dabney-Smith
Neil Danielson
Gunjan Dixit
Daniel Drew
Katie Eudy
Benjamin Gung
Aman Habtemichael
Ann Hagerman
Scott Hartley
Faizule Hassan
William Joesten
Michael Kennedy
Dominik Konkolewicz

Gary Lorigan

Stacey Lowery Bretz

Qianqian Ma Ruoyu Ma

Christopher Makaroff

Janet Marshall
C. Paul New
Richard Page
Maia Popova
Justin Pratt
Ashley Richardson

Whitney Richert
Anthony Sallese
Ramja Sritharan
Richard Taylor
David Tierney
Jorge Torres
Howard Vail
Jamie VanPelt
Michelle Veite
Gopi Nath Vemuri
Shenyuan Xu

#### RESEARCH MENTORS

### 2017 Undergraduate Research Forum

Hong Wang Ellen Yezierski Jiangjiang Zhu

**Educational Psychology** 

Leah Wasburn-Moses

**Electrical and Computer Engineering** 

Mark Scott

**English** 

Joseph Bates Andrew Hebard

**Family Studies and Social Work** 

Chelsey Gates Katherine Kuvalanka

Elise Radina

French and Italian

Andrea Righi

Geography

Bruce D'Arcus Jerry Green

**Geology and Environmental** 

**Earth Science** 

Mike Brudzinski Patrick Cullen Brian Currie Jonathan Levy Carrie Tyler

**Global & Intercultural Studies** 

Tani Sebro

Marguerite Shaffer

**GRAMELAC** 

Mila Ganeva Kazue Harada

History

Elana Albarrán

**Information Systems and Analytics** 

Ying-Ju Chen

Latin American, Latino/a,

& Caribbean Studies

Elena Albarrán José Amador

**Kinesiology and Health** 

Helaine Alessio Kevin Ballard Craig Berry

Samantha Bettinger

Eric Brooks
Robert Duguid
Karly Geller
Thelma Horn
Callie Maddox
Beth Miller
Jennifer Pate
Kyle Timmerman
Valerie Ubbes
Rose Marie Ward
Victoria Warren

**Management and Leadership** 

Rhett Brymer Scott Dust

Megan M. Gerhardt

**Mathematics** 

Anna Ghazaryan

Mechanical and

**Manufacturing Engineering** 

Michael Bailey-Van Kuren Muhammad Jahan Jeong-Hoi Koo James Moller

Media, Journalism and Film

Mack Hagood

Microbiology

Luis Actis

Rebecca Balish

Mitchell F. Balish

Annette Bollman

DJ Ferguson Keely Icardi

Isha Kalra

Andor Kiss

Marcia R. Lee

Rachael Morgan-Kiss

Valerine Rajathi

Hailey Riggs

Jeff Ringiesn

Jen Kinglesn

Mariah Squire

Nursing

Eyad Musallam

Jennifer Rode

**Physics** 

Lalit Bali

Samir Bali

Burcin Bayram

Jennifer Blue

Jeffrey Brock

Andrew Hachtel

Mahmud Khan

Patrick Janovick

Paul K. Urayama

Karthik Vishwanath

Anthony Young

C--- 7-----------

Sara Zanfardino

**Political Science** 

Erica Edwards

Mark Morris

Monica Schneider

**Psychology** 

Steven Almaraz

Seham Almutairi

Aimee L. Belanger

Tessa Benson-Greenwald

Jason Deska

Amanda Diekman

Brett East

### RESEARCH MENTORS

### 2017 Undergraduate Research Forum

Lee Eshelman

Christina Fitzpatrick

Paul Flaspohler

Melissa A. Fuesting

Yvette Harris

Kurt Hugenberg

Alexandria Intorcio

Joseph Johnson

Vrinda Kalia

Anne Kalomiris

Elizabeth Kiel Luebbe

Daniel Kochli

Jonathan Kuntsman

Paige Lloyd

Aaron Luebbe

Kathryn Mancini

Allen R. McConnell

Matthew McMurray

Terri Messman-Moore

Molly Metz

Ryan Nicholls

Barbara Oswald

Timothy Ovia

Jennifer J. Quinn

Anna Radke

Vaishali Raval

Leonard Jay Smart

Richard Smith

Amy Summerville

Danielle Tapp

**Robin Thomas** 

Keisha Wagers

Ryan Walker

Audrey Weil

Virginia Wickline

Li Zhou

#### **Sociology and Gerontology**

Kristen Budd

C. Lee Harrington

Stephen Lippmann

#### **Spanish and Portuguese**

David Beard

Paula Gandara

Shelly Bromberg Jarrett

## Speech Pathology and Audiology

**Taylor Creech** 

Donna Scarborough

Aaron Shield

#### **Statistics**

Thomas Fisher Tatjana Miljkovic

Jing Zhang

#### **Teacher Education**

Todd Edwards

#### **Western Program**

Jacqueline Daugherty Christopher Meyers

## **Undergraduate Research Opportunities**

The Office of the Provost and funds from individual gifts and grants to various departments across Miami University support Miami students' exploration of research.

### Office of Research for Undergraduates

In fall 2014, Miami celebrated the opening of the Office of Research for Undergraduates (ORU) in King Library under the direction of Dr. Joseph Johnson, Professor of Psychology.

The ORU champions the vision, marketing, and coordination of research and creative efforts by Miami University undergraduate students. The ORU focuses on increasing participation in research and creative efforts of students in all majors; increasing the overall quality of undergraduate research at Miami as evidenced through publications, grants, and fellowships; and broadening student participation and faculty mentorship in diverse disciplines and backgrounds. In addition to the Undergraduate Research Forum, the ORU is responsible for:

- · Promoting and publicizing the research achievements of Miami students
- · Coordinating multi-disciplinary curricular efforts such as the First Year Research Experience
- Administering university-wide undergraduate research programs such as DUOS, URA and USS
- Offering co-curricular support programming including workshops, seminars, site visits, etc.
- · Assisting with the identification of appropriate funding opportunities for student-led research
- Offering clear routes to research opportunities for our undergraduates, both at Miami as well as across the nation (e.g. summer programs, internships)
- Collaborating with other offices such as: Global Initiatives, Honors Program, Howe Writing Center, and the University Libraries
- · Advocating beyond the university for support of undergraduate research through professional memberships

### Council on Undergraduate Research Enhanced Membership thru ORU

ORU sponsors Miami's Enhanced Institutional Membership in Council on Undergraduate Research, to provide an unlimited number of our faculty, students, administrators, and staff to join CUR for free.

The Council on Undergraduate Research (CUR) is a national non-profit educational organization that provides research opportunities for students and faculty. The CUR Mission is "to support and promote high-quality undergraduate student-faculty collaborative research and scholarship". The council achieves its vision through the efforts of members within varying disciplines including: arts and humanities, biology, chemistry, geosciences, health sciences, mathematics and computer science, physics and astronomy, psychology, and social sciences. Representing over 900 colleges and universities, this organization provides publications and outreach activities to share strategies for establishing undergraduate research programs. For more information, visit the CUR website at http://www.cur.org/.

<sup>&</sup>lt;sup>1</sup>FYRE, DUOS, URA and USS program details available at: http://www.MiamiOH.edu/oru

## **Undergraduate Research Opportunities**

### Doctoral-Undergraduate Opportunities for Scholarship (DUOS)

Miami's DUOS program heightens the synergy between our graduate and undergraduate programs. Sponsored by The Graduate School and the Office of Advancement of Research and Scholarship, and in partnership with Miami's Preparing Future Faculty initiative, DUOS enables Miami undergraduates to do research or other creative activities guided by a talented graduate student mentor. Either graduates or undergraduates may initiate applications, but the undergraduate student maintains intellectual ownership of the project. Publication of research results is expected, and funds are awarded to the undergraduate and doctoral student for use in the research project. Any Miami University undergraduate student and any post-master's doctoral student in good standing may apply to participate.

### First Year Research Experience (FYRE)

Miami's Office of Research for Undergraduates sponsors the First Year Research Experience (FYRE) Program. Over 500 Miami students have participated in the program since 2009. The program aims to impact student achievement and retention through involvement in research and inquiry at the very start of their college experience. The program encourages students to develop meaningful relationships with Miami faculty, graduate students and their peers outside of the classroom.

The FYRE program provides students with authentic, hands-on research experiences in small teams led by research-active faculty during a two-semester course sequence UNV171 and UNV172. Student researchers review their topic, design a study, and complete necessary training during the fall semester; they implement the study, analyze data, and present the results in the spring. This experience prepares students early for subsequent research opportunities such as summer research positions across the nation and independent research supervised by Miami faculty.

Joining the program requires a two-semester commitment from the student who must agree to:

- enroll in the 2-credit required seminar (UNV171 or UNV172)
- · dedicate 2-4 additional hours per week to a faculty-mentored team research project

FYRE Research Tracks are conducted by a combination of faculty, graduate assistants, and undergraduate peer mentors with previous research experience. It is common for representatives from other university offices (e.g. University Libraries, Howe Writing Center) to contribute to instruction in UNV 171 and UNV 172. Additionally, there are several workshops, colloquia, and other professional development opportunities that are offered, some of which are exclusive to FYRE students.

### Undergraduate Research Award (URA)

The ORU provides administrative support to the Miami University Senate Committee on Undergraduate Research. Since the early 1980's university senate has sponsored the URA to provide Miami Undergraduates faculty-mentored experience in developing grant applications. These partnerships encourage discovery, creative activity and novel, inquiry-based activity. The purpose of these funds is to foster and support research and creative activity from all disciplines, as well as to provide students with a hands-on opportunity to engage in the research process -- from conception to proposal to results. While students can propose projects that augment or are related to an existing faculty project, proposals are developed by student applicant(s), under the supervision of and with sponsorship by a faculty member.

Students may submit individual projects or team projects. Typical awards range from \$150 to \$500, but individual projects of exceptional merit or projects involving student teams may be funded up to \$1,000. Each individual student project or team project must be endorsed by a sponsor who certifies that the project is worth doing, has educational value to the student(s) and can be accomplished in the proposed time frame. The aim and result of specific projects supported by the program may be modest as long as the work can reasonably be interpreted as research or a creative endeavor. Applications may be made for support of a research project that is also being conducted for academic credit.

## **Undergraduate Research Opportunities**

### Undergraduate Summer Scholars (USS)

Miami's nationally-recognized USS program offers a premier undergraduate research experience. The USS initiative supports students in research and other creative activities during the summer under the supervision of faculty. Funds from the Provost's Office make 100 awards available per year. Each award includes a stipend for the student, a student allowance for supplies and services, 6 credit hours with academic fees waived, plus a faculty mentor allowance. Open to students from all disciplines, the focus of this 9-week summer program is the individual student/faculty mentor relationship. Applications by individual student/faculty pairs form the basis for subsequent allocation of USS positions to departments. Although coordinated by the Office of Research for Undergraduates (ORU), departments are primarily responsible for selecting particular student/faculty projects, approving those projects for academic credit, and evaluating the student experiences.

### College of Arts and Science Dean's Scholars Program

Undergraduates who have exhibited excellence in the classroom and the ability to take on the extra challenges of research and scholarly work may be invited to participate in a Dean's Scholar Program within their division. Individual departments develop their own criteria for selecting scholars, but those selected must have conceived and proposed a project that is endorsed by a faculty mentor. During the senior year, Dean's Scholars conduct independent study with a departmental mentor. The scholar and the mentor each receive a professional expense stipend. Students conduct the study under the individual department's independent study or departmental honors course numbers, thereby earning academic credit for the project. Dean's Scholars projects culminate in significant work of scholarship aimed towards national/international publication, performance, or dissemination. For more information, contact the chair of your College of Arts and Science department.

### College of Arts and Science Hughes Medical Institute Summer Research Internships

Named after the original sponsoring foundation, the Hughes Summer internship is available for undergraduates interested in the biomedical sciences. Approximately 15 internships per year for Miami University students are supported with funds from the College of Arts and Science. Students in this program work with Miami faculty from the departments of biology, chemistry, and microbiology. The 10-week internship includes a participant stipend and provides twelve hours of credit with tuition costs waived.

Visit the College of Arts & Science Website for information on Dean's Scholar and Howard Hughes awards.

## **Undergraduate Research Opportunities**

### National Prestigious Fellowships Application

The University Honors Program and Global Initiatives collaborate to assist all Miami University Students and alumni to identify, plan for, and win national prestigious scholarships and fellowships to pursue graduate school, study or research abroad, and professional development.

To compete for a prestigious scholarship or fellowship, students should generally have the following:

- A cumulative grade point average of 3.75 or higher
- A history of substantial intellectual or creative projects
- Evidence of exemplary leadership or public service
- Three or more faculty members who can write you detailed letters of support.

Visit the national fellowship page: http://www.miamioh.edu/fellowships.

To get information about specific fellowship and scholarship opportunities and for help with the application process.

#### Global Initiatives

Aligned with Miami University's commitment to advance global learning, Global Initiatives promotes the dynamic, comprehensive internationalization of the University through the infusion of multicultural and comparative perspectives in scholarship, teaching, and service.

Our offices include Education Abroad Services, International Student and Scholar Services, the Center for American and World Cultures, the Confucius Institute and Continuing Education.

Visit: http://www.MiamiOH.edu/global

### University Honors Program

UHP supports and provides opportunities for academically motivated students who want a highly challenging and intellectually enriched learning environment. The program emphasizes student discussion, intellectual exchange, reflection, and other active learning. Honors and Scholars students have frequent contact with faculty; many complete research or other projects working closely with a faculty mentor. UHP provides opportunities that include study abroad, funding for research and travel, internships, and social and cultural activities. The Honors community is comprised of students from all divisions at the University.

Visit: http://www.honors.MiamiOH.edu.

### Acknowledgements

### Undergraduate Research Forum Planning Committee Members:

### Graduate School and Office for Advancement of Research and Scholarship and Office of Research for Undergraduates

James T. Oris, Joseph G. Johnson, Martha E. Weber, Valerie O. Robinson

The UR Forum planning committee comes together each year to invite the community to celebrate the research, scholarship and creative activities of our students. We appreciate the yearlong efforts and support of all of the mentors, departments, programs, and divisions who engage with students to foster creativity and research. The committee would also like to express our sincere appreciation to Valerie Robinson (Graduate School), and the many faculty, graduate students and staff members whose continued commitment to serve as moderators for the oral presentation format fosters undergraduate research and inquiry. The UR Forum planning committee commends the exemplary efforts of Martha E. Weber, Undergraduate Research Coordinator in the Office of Research for Undergraduates for the many hours of work to manage the details of this signature event.

Our special thanks to the dedicated staff members and students who contribute so much to this event:

- Technical Staff Supporting the Oral Presentations: Paula Fogt, Guy Moore, Larry Downes.
- Staff members: Lou Ann Haines, Vanessa Gordon, Jennifer Sutton, and Valerie Robinson.
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- · Shriver Center Staff members: Susan Coleman, Alicia Rizzo, Neila Hanges, Jim Baker, Dennis Brown and their crew.
- · Alpha Phi Omega Zeta Delta Chapter for their assistance with the poster session set up.

#### Undergraduate research at Miami is funded in part by the following contributors:

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Foundation

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Garv W. Barrett Research Award Fund

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Laboratory Research Fund

J. Beldon Dennison Scholar

Room Fund

Joseph F. Hogan Research Scholar Fund

Kettering Fund

Madelene and George Shetler Diabetes

Research Award Fund

Marjorie C. Britton Fund

Miami Honors Program Student

Initiative Fund

Miami Provost Office

Nancy Anderson Brown Honors

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Susan Roberson Wilson Fund

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Research Fund

The Gund Foundation

The Ohio Board of Regents

#### To support undergraduate research at Miami, please contact:

Miami University, Director of Development • 725 East Chestnut • Oxford, OH 45056 • Phone: (513) 529-9260

As a courtesy to the oral presenters, please enter the sessions during the 15-minute break and stay for entire oral session that begins on the hour. Reminder: Please check event locations on day of the event.

Oral Session I 9:00 - 9:45 a.m. (Break 9:45 a.m.)

Oral Session II 10:00 - 10:45 a.m. (Break 10:45 a.m.)

Oral Session III 11:00 - 11:45 a.m.

Oral Session IV 1:30 - 2:15 p.m. (Break 2:15 p.m.)

Oral Session V 2:30 - 3:15 p.m. (Break 3:15 p.m.)

Oral Session VI 3:30 - 4:15 p.m.

Poster presenters will be with their poster during their assigned time.

**Session A** (10:00 - 11:30 a.m.) **Session B** (1:30 - 2:45 p.m.) or **Session C** (3:00 - 4:30 p.m.)

Poster\* = primary presenter

Last Name	First Name	Type	Poster Session	Poster Number	Building Location
Abdun	Lulu	Poster*	В	075	Shriver JDOL
Abell	Jon	Poster	A-B-C	096	Shriver JDOL
Abraham	Aaron	Poster	С	068	Shriver JDOL
Acheampong	Emelia	Poster*	С	070	Shriver JDOL
Adkins	Zachary	Poster*	С	069	Shriver JDOL
Aidoo	Doreen	Poster	С	075	Shriver JDOL
Akins	Sherry	Poster	С	076	Shriver JDOL
Al-Zubi	Sara	Poster*	А	067	Shriver JDOL
Albin	Ashley	Poster*	В	071	Shriver JDOL
Alley	Katy	Poster*	В	072	Shriver JDOL
Amend	Ben	Poster	А	011	Shriver JDOL
Amer	Lana	Poster*	С	041	Shriver JDOL
Amigo	Morgan	Poster*	В	007	Shriver JDOL
Andrews	Joslyn	Poster*	В	040	Shriver JDOL
Antle	Lauren	Poster*	В	05L	Shriver Lobby
Apapa	Jayeola	Poster	В	104	Shriver JDOL
Arlis	Sydney	Poster	A-B-C	096	Shriver JDOL
Arslain	Kristina	Poster	С	053	Shriver JDOL
Arvind	Sanchit Ram	Poster*	В	033	Shriver JDOL
Asomani	Linda	Poster	С	070	Shriver JDOL
Asselmeier	Charles	Poster*	С	102	Shriver JDOL
Babcock	Annastasia	Poster	А	088	Shriver JDOL
Babcock	Annastasia	Poster	A-B-C	096	Shriver JDOL
Bailey Van-Kuren	Dylan	Poster	С	067	Shriver JDOL
Bajrami	Silvi	Poster*	В	020	Shriver JDOL
Baker	Madison	Poster*	А	039	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Ball	Kaitlin	Poster	В	078	Shriver JDOL
Ball	Kayla	Poster	В	076	Shriver JDOL
Banerjee	Rishav	Poster	Α	035	Shriver JDOL
Banerjee	Rishav	Poster	А	036	Shriver JDOL
Bansal	Meena	Poster*	В	043	Shriver JDOL
Bartels	Carrie	Poster	В	074	Shriver JDOL
Bashir	Sabina	Poster	А	049	Shriver JDOL
Baumgartner	Joseph	Poster*	С	092	Shriver JDOL
Baxter	Nick	Poster*	А	105	Shriver JDOL
Bean	Lamuel	Poster*	С	030	Shriver JDOL
Becker	Samantha	Poster	В	038	Shriver JDOL
Becker	Taylor	Poster*	А	048	Shriver JDOL
Becker	Samantha	Poster*	В	039	Shriver JDOL
Begezda	Abby	Poster*	А	044	Shriver JDOL
Behrend	Julia	Oral*	Session III	ASC-3001	Armstrong
Behrend	Julia	Poster*	В	005	Shriver JDOL
Belzer	Danielle	Poster*	С	083	Shriver JDOL
Benjamin	Benjamin	Poster	А	017	Shriver JDOL
Bennett	Jack	Poster*	А	031	Shriver JDOL
Bergmann	Kayla	Poster*	В	004	Shriver JDOL
Berray	Jamie	Poster*	А	097	Shriver JDOL
Biedenharn	Allison	Poster	A-B-C	096	Shriver JDOL
Bissmeyer	Paul	Poster	А	022	Shriver JDOL
Black	David	Poster*	В	045	Shriver JDOL
Black	Maddie	Poster	В	031	Shriver JDOL
Black	Samantha	Poster	В	056	Shriver JDOL
Blair	Kamari	Poster	В	077	Shriver JDOL
Blevins	Haylee	Poster	С	073	Shriver JDOL
Blumenthal	Emily	Poster	В	062	Shriver JDOL
Boardman	Haley	Poster*	В	022	Shriver JDOL
Boerger	Savannah	Poster	В	02L	Shriver Lobby
Boerger	Savannah	Poster*	В	027	Shriver JDOL
Bolen	Zoe	Poster	С	082	Shriver JDOL
Bolen	Zoe	Poster*	В	001	Shriver JDOL
Boll	Taylor	Poster	А	035	Shriver JDOL
Boll	Taylor	Poster	А	036	Shriver JDOL
Bollenbach	Storm	Poster*	С	075	Shriver JDOL
Bolton	Jess	Poster	А	085	Shriver JDOL
Bonsky	Heather	Oral	Session I	ASC-3056B	Armstrong

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Borgarding	Kelsey	Poster	В	052	Shriver JDOL
Boris	Gabriel	Poster	В	023	Shriver JDOL
Bosomefi	Victoria	Poster	С	070	Shriver JDOL
Bosse	Samantha	Poster	С	015	Shriver JDOL
Bowers	Meghan	Poster	В	004	Shriver JDOL
Bowers	Meghan	Poster	С	092	Shriver JDOL
Bowley	Oliva	Poster	В	071	Shriver JDOL
Bowman	John	Poster*	С	043	Shriver JDOL
Bowman	Kimberly	Poster*	С	103	Shriver JDOL
Boyles	Sean	Poster*	А	006	Shriver JDOL
Bradford	Josh	Poster*	А	065	Shriver JDOL
Brady	Lauren	Poster	А	089	Shriver JDOL
Brady	Lauren	Poster*	С	093	Shriver JDOL
Brake	Marie	Poster*	А	021	Shriver JDOL
Briggs	Natalie	Poster	А	005	Shriver JDOL
Briggs	Natalie	Poster*	В	083	Shriver JDOL
Brinck	Sydney	Oral*	Session I	ASC-3056B	Armstrong
Brown	Abigai	Poster	В	043	Shriver JDOL
Brown	Jacob	Poster	С	015	Shriver JDOL
Brown	Kayla	Poster	В	088	Shriver JDOL
Brown	Nicholas	Poster	А	101	Shriver JDOL
Bryan	Annie	Poster*	А	027	Shriver JDOL
Bryant	Addison	Poster*	С	071	Shriver JDOL
Brzezinski	Emma	Poster*	С	02L	Shriver Lobby
Buck	Emma	Poster	С	005	Shriver JDOL
Buckingham	Brooke	Poster	А	031	Shriver JDOL
Bueter	Kyle	Poster*	С	009	Shriver JDOL
Burgess	Amanda	Poster	A-B-C	096	Shriver JDOL
Burke	Amanda	Poster*	В	02L	Shriver Lobby
Burke	Amanda	Poster*	С	104	Shriver JDOL
Burns	Nathan	Oral*	Session I	ASC-2042	Armstrong
Burns	Nathan	Poster*	В	002	Shriver JDOL
Bussell	Daniel	Poster	В	024	Shriver JDOL
Bussell	Taylor	Poster	С	066	Shriver JDOL
Bustle	Madison	Poster	С	078	Shriver JDOL
Byrket	Katherine	Poster*	А	074	Shriver JDOL
Byrne	Liam	Poster	С	079	Shriver JDOL
Caba	Antonia	Poster*	С	07L	Shriver Lobby
Cady	Angus	Poster	А	088	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Cai	Hong	Poster*	А	012	Shriver JDOL
Cain	Madison	Poster	В	045	Shriver JDOL
Caldwell II	Jeffrey	Poster*	А	029	Shriver JDOL
Callahan	Olivia	Poster*	С	031	Shriver JDOL
Campbell	Dillon	Poster*	С	054	Shriver JDOL
Campbell	Tiffany	Poster*	С	094	Shriver JDOL
Campe	Grace	Poster*	В	068	Shriver JDOL
Camper	Kristine	Poster*	А	03L	Shriver Lobby
Campos	Paulina	Poster	В	07L	Shriver Lobby
Capitulik	Shelby	Poster*	С	076	Shriver JDOL
Cappas	Madison	Poster*	В	050	Shriver JDOL
Capretta	Zachary	Poster	В	05L	Shriver Lobby
Carew	Jermaine	Poster	А	033	Shriver JDOL
Cariani	Zev	Poster*	С	091	Shriver JDOL
Carney	Margaret	Poster*	С	001	Shriver JDOL
Caroscio	Hannah	Poster*	В	031	Shriver JDOL
Carr	Phillip	Poster*	А	084	Shriver JDOL
Carrafiello	Luke	Poster	A-B-C	096	Shriver JDOL
Carroll	Patrick	Poster*	А	001	Shriver JDOL
Carter	Martha	Poster	С	088	Shriver JDOL
Carter	Martha	Poster*	С	090	Shriver JDOL
Cash	Carsen	Poster*	В	009	Shriver JDOL
Cashman	Connor	Poster	С	045	Shriver JDOL
Caudill	Hannah	Poster	В	031	Shriver JDOL
Cavagnaro	Anna	Oral*	Session II	ASC-3056B	Armstrong
Cavalco	Natalie	Poster*	А	033	Shriver JDOL
Chakravarti	Sumedha	Poster	А	067	Shriver JDOL
Chalke	Arya	Poster	С	105	Shriver JDOL
Challoner	Jackie	Poster	В	045	Shriver JDOL
Chan	Denise	Poster	А	059	Shriver JDOL
Chang	Le	Poster*	А	020	Shriver JDOL
Chapekis	Athena	Poster*	В	032	Shriver JDOL
Chasteen	Brittany	Poster	В	078	Shriver JDOL
Chatterjee	Wrik	Poster*	А	057	Shriver JDOL
Choudhury	Zaheer	Poster	В	02L	Shriver Lobby
Clark	Christine	Poster	С	001	Shriver JDOL
Colah	Avan	Poster*	С	010	Shriver JDOL
Collins	Ashantia	Poster*	С	074	Shriver JDOL
Collins	Olivia	Poster	А	088	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Colston	David	Poster	В	02L	Shriver Lobby
Colston	David	Poster	С	O1L	Shriver Lobby
Colston	David	Poster*	А	104	Shriver JDOL
Colter	Kailee	Poster*	В	057	Shriver JDOL
Colussi	Nubia	Oral	Session III	ASC-3001	Armstrong
Colvin	Victoria	Poster*	В	062	Shriver JDOL
Conroy	Callen	Poster	A-B-C	096	Shriver JDOL
Contestable	Alexandra	Poster	В	036	Shriver JDOL
Cooper	Abby	Poster*	С	072	Shriver JDOL
Cooper	Bri	Poster*	С	013	Shriver JDOL
Cooper	Carly	Poster*	А	078	Shriver JDOL
Cornett	Emily	Poster*	С	077	Shriver JDOL
Cortez	Blake	Poster	В	042	Shriver JDOL
Cottingim	Kelsey	Poster	С	065	Shriver JDOL
Craney	Mackenzie	Poster	С	016	Shriver JDOL
Creber	Thatcher	Poster	В	081	Shriver JDOL
Creber	Thatcher Creber	Poster	С	086	Shriver JDOL
Crist	McKenzie	Oral*	Session V	ASC-3056B	Armstrong
Crookes	Justin	Poster	С	105	Shriver JDOL
Culberson	Emily	Poster	В	050	Shriver JDOL
Curen	Emily	Poster	А	031	Shriver JDOL
Curts	Clay	Poster	В	004	Shriver JDOL
Dabrowski	Chloe	Poster*	В	051	Shriver JDOL
Davey	Leah	Poster*	С	008	Shriver JDOL
Davis	Kristen	Poster	В	077	Shriver JDOL
Davis	Samantha	Poster	В	071	Shriver JDOL
Davis	Sean	Poster	С	013	Shriver JDOL
Davisson	Adam	Poster	А	035	Shriver JDOL
Davisson	Adam	Poster	А	036	Shriver JDOL
Deal	Mike	Poster*	А	018	Shriver JDOL
DeMartini	Zachary	Poster	А	023	Shriver JDOL
Demel	Kelsey	Poster	А	088	Shriver JDOL
DeRose	Ken	Oral*	Session II	ASC-2042	Armstrong
DeVillez	Ethan	Poster*	В	003	Shriver JDOL
Devitt	Jimmy	Poster*	А	05L	Shriver Lobby
Diana	Victoria	Oral*	Session IV	ASC-3056B	Armstrong
Diana	Victoria	Oral*	Session V	ASC-3056B	Armstrong
Diehl	Matt	Poster	А	068	Shriver JDOL
Dietz	Brook	Poster	В	079	Shriver JDOL

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DiFilippo	Madeline	Poster*	С	098	Shriver JDOL
Digby	Zachary	Poster*	С	020	Shriver JDOL
Dilenge	Demi	Poster	С	O1L	Shriver Lobby
Dobbs	Carrie	Poster*	С	022	Shriver JDOL
Donahey	Andrew	Poster	С	067	Shriver JDOL
Dong	Xin	Oral*	Session II	ASC-2042	Armstrong
Dong	Xin	Poster	А	095	Shriver JDOL
Donna	Julie	Poster	A-B-C	096	Shriver JDOL
Douglas	Caitlin	Poster	А	035	Shriver JDOL
Douglas	Caitlin	Poster	А	036	Shriver JDOL
Duhn	Kiley	Poster*	С	015	Shriver JDOL
Dunn	Mallory	Poster	А	092	Shriver JDOL
Ebenroth	Christina	Poster	А	035	Shriver JDOL
Ebenroth	Christina	Poster	А	036	Shriver JDOL
Ecklar	Brooke	Poster	А	101	Shriver JDOL
Edwards	Erica	Poster	В	030	Shriver JDOL
Eggert	Adam	Poster*	С	044	Shriver JDOL
Elstien	Kayla	Poster	В	031	Shriver JDOL
Enders	Alexa	Poster	А	088	Shriver JDOL
Enderson	Madison	Poster	А	035	Shriver JDOL
Enderson	Madison	Poster	А	036	Shriver JDOL
Engelking	Madeline	Poster*	В	084	Shriver JDOL
Enright	Erin	Poster	С	105	Shriver JDOL
Enright	Erin	Poster*	А	023	Shriver JDOL
Ethridge	Tori	Poster*	А	022	Shriver JDOL
Evans	Luke	Poster	В	062	Shriver JDOL
Everson	Kathy	Poster	В	080	Shriver JDOL
Faimon	Lillyanna	Poster	А	054	Shriver JDOL
Fang	Lin	Poster	С	057	Shriver JDOL
Farinazo	Giovanna	Oral	Session III	ASC-3001	Armstrong
Farnbacher	Thomas	Poster*	В	098	Shriver JDOL
Feazell	Maggie	Poster	С	066	Shriver JDOL
Fehlan	Kirsten	Poster	В	037	Shriver JDOL
Fendinger	Nick	Poster*	Α	073	Shriver JDOL
Feng	Tian	Poster	В	024	Shriver JDOL
Feran	Allison	Poster	А	080	Shriver JDOL
Ferguson	Haley	Poster	В	105	Shriver JDOL
Ferguson	Katie	Poster*	С	023	Shriver JDOL
Fernandez	Gabrielle	Poster	А	072	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Fernandez	Gabrielle	Poster*	А	099	Shriver JDOL
Fernandez	Monica	Poster*	А	007	Shriver JDOL
Fichtner	Aisha	Poster	А	059	Shriver JDOL
Fields	Zachary	Poster*	С	004	Shriver JDOL
Finkenthal	Nikki	Poster	В	083	Shriver JDOL
Flint	Jason	Poster*	В	106	Shriver JDOL
Flum	Jacob	Poster	В	022	Shriver JDOL
Foley	Elizabeth	Oral*	Session III	ASC-3056B	Armstrong
Foster	Elizabeth	Poster*	С	021	Shriver JDOL
Frank	Dillon	Poster*	В	044	Shriver JDOL
Frankel	Jack	Poster	В	061	Shriver JDOL
Frankhauser	Rachel	Poster	В	087	Shriver JDOL
Frantz	Nick	Poster*	В	018	Shriver JDOL
Fredrick	Paul	Oral*	Session VI	ASC-3001	Armstrong
Frey	Noah	Poster	А	024	Shriver JDOL
Fry	Anna	Poster	С	073	Shriver JDOL
Fuhr	Alyssa	Poster*	С	032	Shriver JDOL
Gallagher	Casey	Poster*	А	079	Shriver JDOL
Gallowan	Francessca	Poster	В	032	Shriver JDOL
Garcia	Carolina	Poster	А	088	Shriver JDOL
Garcia	Denae	Poster	А	102	Shriver JDOL
Garcia De Jesus	Rebeca	Poster*	В	103	Shriver JDOL
Gassaway-Steere	Justin	Poster	С	065	Shriver JDOL
Gatts	Cailin	Poster*	С	053	Shriver JDOL
Gauvey	Kaleb	Poster	В	055	Shriver JDOL
Gawrys	Samantha	Poster*	В	025	Shriver JDOL
Geary	Emma	Poster*	В	047	Shriver JDOL
Geary	Emma	Poster*	С	047	Shriver JDOL
Gemma	Carly	Poster*	А	042	Shriver JDOL
Genaro	Jessica	Poster	С	095	Shriver JDOL
George	Sam	Poster*	С	068	Shriver JDOL
Gerber	Reed	Poster*	А	11L	Shriver Lobby
Germano	John	Poster*	В	060	Shriver JDOL
Ghent	Kaela	Poster	В	072	Shriver JDOL
Giangardella	Nathan	Poster	С	040	Shriver JDOL
Gilbert	Ben	Poster	В	025	Shriver JDOL
Glazer	Sandra	Oral*	Session V	ASC-2042	Armstrong
Glazier	Bradley	Poster*	А	017	Shriver JDOL
Glinos	Alexandra	Poster*	В	016	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Glover	Leah	Poster	С	075	Shriver JDOL
Goad	Brittany	Poster*	В	073	Shriver JDOL
Goldstein	Jessica	Poster	С	013	Shriver JDOL
Gonzales	Kirsten	Poster*	С	061	Shriver JDOL
Goodrich	Cole	Poster	A-B-C	096	Shriver JDOL
Goss	Chad	Poster	В	041	Shriver JDOL
Gottschalk	Lauren	Oral*	Session V	ASC-2042	Armstrong
Graham	Sean	Poster	С	081	Shriver JDOL
Greenlee	Jourdan	Poster*	С	033	Shriver JDOL
Gregerson	Lyndsey	Poster	С	065	Shriver JDOL
Grewal	Kon	Poster	В	103	Shriver JDOL
Groth	Nick	Poster	В	023	Shriver JDOL
Gruber	Jack	Poster*	А	102	Shriver JDOL
Gruenhagen	George	Oral*	Session II	ASC-3001	Armstrong
Guggenheimer	Marla	Poster	А	059	Shriver JDOL
Gunderman	Michael	Poster*	А	010	Shriver JDOL
Haffey	Christina	Oral*	Session II	ASC-3001	Armstrong
Hale	Danielle	Poster	В	077	Shriver JDOL
Hall	Ashton	Poster*	В	029	Shriver JDOL
Hall	Bailey	Poster	В	101	Shriver JDOL
Hamilton	Grace	Poster	В	02L	Shriver Lobby
Hansen	Megan	Poster*	В	030	Shriver JDOL
Hanson	Craig	Poster*	В	053	Shriver JDOL
Haralson	Anna	Poster	А	014	Shriver JDOL
Harbeson	Kristin	Poster	С	076	Shriver JDOL
Haring	Grace	Poster	В	07L	Shriver Lobby
Harris	Michael	Poster	А	023	Shriver JDOL
Harris	James	Poster*	С	04L	Shriver Lobby
Haught	Jack	Poster	В	087	Shriver JDOL
Hause	Annie	Poster*	А	054	Shriver JDOL
Hawkins	Rachel	Poster	А	088	Shriver JDOL
Hayes-Puttfarcken	Amanda	Poster	А	044	Shriver JDOL
Не	Yitong	Poster	А	035	Shriver JDOL
Не	Yitong	Poster	А	036	Shriver JDOL
Heath	Mary	Oral*	Session IV	ASC-3001	Armstrong
Heck	Morgan	Poster	В	074	Shriver JDOL
Heidelman	Martin	Poster*	С	042	Shriver JDOL
Heinrich	Greg	Poster	А	04L	Shriver Lobby
Heintz	Justin	Poster	А	088	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Helldoerfer	Carrie	Poster*	А	066	Shriver JDOL
Heller	Danny	Poster	С	06L	Shriver Lobby
Henderson	Amber	Poster	В	02L	Shriver Lobby
Henry	Connor	Poster*	В	012	Shriver JDOL
Henson	Allison	Poster	А	097	Shriver JDOL
Hickman	MacKenzie	Poster	В	071	Shriver JDOL
Higgins	Zachary	Poster	С	067	Shriver JDOL
Higgins	Bri	Poster*	А	005	Shriver JDOL
Hill	Chris	Poster	А	095	Shriver JDOL
Hiner	Sarah	Poster	В	090	Shriver JDOL
Hiner	Sarah	Poster	С	090	Shriver JDOL
Hiner	Sarah	Poster*	А	002	Shriver JDOL
Hirata	Hailey	Poster*	С	011	Shriver JDOL
Hird	Krystina	Poster*	В	082	Shriver JDOL
Hochstetler	Britt	Poster	В	050	Shriver JDOL
Holcomb	Palmer	Oral	Session II	ASC-3056B	Armstrong
Hollatz	Virginia	Poster*	В	058	Shriver JDOL
Hollingsworth	Ethan	Poster	А	090	Shriver JDOL
Hollingsworth	Ethan	Poster	С	094	Shriver JDOL
Hollingsworth	Ethan	Poster*	А	088	Shriver JDOL
Hollingsworth	Ethan	Poster*	А	089	Shriver JDOL
Holm	Trevor	Poster	В	089	Shriver JDOL
Hoover	Lauren	Poster*	Α	083	Shriver JDOL
Horan	Casey	Poster	С	089	Shriver JDOL
Horman	Kris	Poster*	А	061	Shriver JDOL
Hosey	Violette	Poster	В	035	Shriver JDOL
Howard	Clare	Poster	В	085	Shriver JDOL
Howard	Jayvon	Poster*	А	070	Shriver JDOL
Hueslman	Connor	Poster	В	006	Shriver JDOL
Hughes	Wil	Poster*	С	084	Shriver JDOL
Huo	Zhengjia	Poster	Α	11L	Shriver Lobby
Hurt	Taylor	Poster	А	014	Shriver JDOL
Igel	Megan	Poster	С	097	Shriver JDOL
Ingram	Elizabeth	Poster	В	072	Shriver JDOL
Inutsuka	Sean	Poster	А	023	Shriver JDOL
Ising	Noah	Poster*	С	089	Shriver JDOL
Issenmann	Mary	Poster*	А	082	Shriver JDOL
Jackson	Benjamin	Poster*	В	101	Shriver JDOL
Jackson	Madison	Poster*	А	055	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Jackson	Megan	Poster	А	034	Shriver JDOL
Jacobo	Jose	Poster	С	019	Shriver JDOL
Jacobs	Elizabeth	Poster	С	003	Shriver JDOL
Jacques	Isaiah	Poster*	Α	032	Shriver JDOL
James	Samuel	Poster*	А	008	Shriver JDOL
Jeffers	Erika	Poster*	С	03L	Shriver Lobby
Jones	Caitlyn	Poster	В	062	Shriver JDOL
Jones	Caitlyn	Poster*	С	029	Shriver JDOL
Jones	Daniel	Poster	С	080	Shriver JDOL
Jones	Danielle	Oral	Session VI	ASC-3056B	Armstrong
Jones	Jamie	Poster	С	077	Shriver JDOL
Jones	Meghan	Poster	А	101	Shriver JDOL
Juwillie	Mona-Mae	Poster*	А	058	Shriver JDOL
Juwillie	Mona-Mar	Poster	В	02L	Shriver Lobby
Kaplevatsky	Ryan	Poster	А	032	Shriver JDOL
Karikas	John	Poster	В	02L	Shriver Lobby
Kashyap	Jyoti	Poster	С	091	Shriver JDOL
Kellamis	Natalia	Poster*	В	097	Shriver JDOL
Keller	Benjamin	Poster*	С	088	Shriver JDOL
Keller	Benjamin	Poster*	С	087	Shriver JDOL
Keller	Rachel	Poster	А	087	Shriver JDOL
Kelly	Matthew	Poster*	С	067	Shriver JDOL
Kempf	Hannah	Poster*	В	100	Shriver JDOL
Kenes	Aldiyar	Poster*	В	059	Shriver JDOL
Kennedy	Caroline	Poster	А	102	Shriver JDOL
Keshock	Nicole	Poster*	Α	069	Shriver JDOL
King	Ashley	Poster	В	079	Shriver JDOL
Kingsbury	Sara	Poster	С	097	Shriver JDOL
Kistenfeger	Quinn	Poster	В	105	Shriver JDOL
Knight	Megan	Poster*	В	074	Shriver JDOL
Koehler	Kenna	Poster*	С	066	Shriver JDOL
Koehler	Matthew	Poster*	А	003	Shriver JDOL
Kollias	Anelise	Poster	С	025	Shriver JDOL
Konrad	Emily	Poster*	A-B-C	096	Shriver JDOL
Koranteng	Patricia	Poster	В	073	Shriver JDOL
Kosse	Sarah	Poster*	Α	026	Shriver JDOL
Kou	Rita	Poster	В	039	Shriver JDOL
Kou	Rita	Poster*	В	038	Shriver JDOL
Kowalski	Katie	Poster	В	068	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Kreiner	Leah	Poster	С	078	Shriver JDOL
Krienen	Alec	Poster	В	023	Shriver JDOL
Kuhn	Leah	Poster*	А	034	Shriver JDOL
Kuperman	Daniel	Oral*	Session II	ASC-3056B	Armstrong
Kuznieski	Gregory	Poster	В	023	Shriver JDOL
Lab	Shelby	Poster	А	088	Shriver JDOL
Lab	Shelby	Poster	С	094	Shriver JDOL
Lab	Shelby	Poster*	А	090	Shriver JDOL
Lahey	Olivia	Poster*	С	051	Shriver JDOL
Lambert	Taylor	Poster*	В	079	Shriver JDOL
Landers	Joseph	Oral*	Session I	ASC-2042	Armstrong
Lane	Marissa	Poster*	С	050	Shriver JDOL
Lane	Netanya	Poster*	В	093	Shriver JDOL
Lanoue	Alex	Poster	С	086	Shriver JDOL
Latch	Tyler	Poster*	В	041	Shriver JDOL
Latimer	John	Poster*	А	030	Shriver JDOL
Lawson	Ciara	Poster	В	081	Shriver JDOL
Le	Linh	Poster	А	014	Shriver JDOL
Leaman	Henry	Oral*	Session I	ASC-3001	Armstrong
Lee	Andrea	Poster*	А	062	Shriver JDOL
Lei	In Hong	Poster*	В	069	Shriver JDOL
Lensmeyer	Erin	Poster	С	066	Shriver JDOL
Lentz	Hannah	Poster	В	056	Shriver JDOL
Leonard	Elise	Poster*	С	063	Shriver JDOL
Leveridge	Max	Poster*	В	102	Shriver JDOL
Levikov	Briana	Poster*	А	091	Shriver JDOL
Levin	Stephanie	Oral*	Session I	ASC-3001	Armstrong
Lewis	Sam	Poster	А	033	Shriver JDOL
Lichter	James	Poster*	В	800	Shriver JDOL
Liesch	Nathaniel	Poster*	В	08L	Shriver Lobby
Lilly	Jordan	Poster*	С	016	Shriver JDOL
Lin	Ling	Poster	В	076	Shriver JDOL
Lindner	Haleigh	Poster	С	074	Shriver JDOL
Lindner	Haleigh	Poster*	С	095	Shriver JDOL
Lloyd	Gwen	Poster	С	O1L	Shriver Lobby
Lloyd	Meredith	Poster*	А	095	Shriver JDOL
Long	Brian	Poster*	В	014	Shriver JDOL
Long	Garrett	Oral*	Session V	ASC-3001	Armstrong
Lopez Gonzalez	Eulalia	Poster	В	073	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Lopez Gonzalez	Maria Lopez	Poster	В	073	Shriver JDOL
Lott	Danielle	Poster	В	103	Shriver JDOL
Lovell	Caleb	Oral*	Session III	ASC-3001	Armstrong
Lu	Meng	Poster	С	026	Shriver JDOL
Lundin	Madeline	Poster*	В	067	Shriver JDOL
Madias	Steven	Poster	A-B-C	096	Shriver JDOL
Manning	Corey	Poster	В	052	Shriver JDOL
March	Lexi	Poster	Α	088	Shriver JDOL
Marcus	Kelly	Poster	С	O1L	Shriver Lobby
Margerum	Cristie	Poster	В	034	Shriver JDOL
Marsh	Taft	Poster*	С	007	Shriver JDOL
Martin	Bridget	Poster*	В	078	Shriver JDOL
Martin	Mary	Oral	Session VI	ASC-3056B	Armstrong
Martin	Mary	Oral*	Session IV	ASC-3056B	Armstrong
Mazanek	Catherine	Oral*	Session V	ASC-3056B	Armstrong
Mazursky	Alex	Poster*	В	054	Shriver JDOL
McArthur	Allyson	Poster*	В	085	Shriver JDOL
McBride	Megan	Poster*	А	056	Shriver JDOL
McBride	Zack	Oral*	Session II	ASC-3056B	Armstrong
McConahay	Brandi	Oral*	Session I	ASC-3056B	Armstrong
McConahay	Brandi	Poster*	А	02L	Shriver Lobby
McConahay	Brandi	Poster*	В	O1L	Shriver Lobby
McConahay	Brandi	Poster*	С	O1L	Shriver Lobby
McCudden	Molly	Poster	А	090	Shriver JDOL
McElligott	Caitlin	Oral*	Session VI	ASC-3056B	Armstrong
McElligott	Caitlin	Poster	В	02L	Shriver Lobby
McElligott	Caitlin	Poster	С	O1L	Shriver Lobby
McElroy	Bryn	Poster*	С	097	Shriver JDOL
McFarland	Jacob	Oral*	Session IV	ASC-2042	Armstrong
McFarland	Jacob	Poster	С	048	Shriver JDOL
McGovern	Eri	Poster	В	098	Shriver JDOL
McHenry	Patrick	Poster	С	067	Shriver JDOL
McKenna	Mary	Poster	С	016	Shriver JDOL
McLaughlin	Christian	Poster	В	072	Shriver JDOL
McPherson	Steven	Poster*	В	036	Shriver JDOL
Megura	Matt	Poster	А	032	Shriver JDOL
Meisler	Adam	Poster	А	018	Shriver JDOL
Melanson	Grace	Poster	В	035	Shriver JDOL
Melendez	Lyric	Poster	В	05L	Shriver Lobby

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Merkle	Hannah	Poster*	А	087	Shriver JDOL
Meyer	Troy	Poster*	С	100	Shriver JDOL
Miles	Jack	Poster	А	024	Shriver JDOL
Miller	Ashley	Poster*	А	081	Shriver JDOL
Miller	Halle	Poster	А	095	Shriver JDOL
Miller	Noah	Poster	А	101	Shriver JDOL
Miller	Tara	Poster*	А	08L	Shriver Lobby
Millhouse	Allison	Poster	В	074	Shriver JDOL
Milligan	Spencer	Poster*	В	037	Shriver JDOL
Minshall	Brianna	Poster*	В	049	Shriver JDOL
Mitchell	Kristin	Poster	А	073	Shriver JDOL
Mitchell	Mikayla	Oral*	Session III	ASC-3056B	Armstrong
Mitchem	Cortney	Poster	A-B-C	096	Shriver JDOL
Molloy	Danny	Poster	В	046	Shriver JDOL
Moon	Justin	Poster	А	031	Shriver JDOL
Moore	Rylan	Poster	А	054	Shriver JDOL
Moore	Sarah	Poster	С	074	Shriver JDOL
Mordzinski	Victoria	Poster	А	089	Shriver JDOL
Mordzinski	Victoria	Poster	С	094	Shriver JDOL
Moro	Carly	Poster*	А	10L	Shriver Lobby
Morris	Micah	Poster*	С	034	Shriver JDOL
Moser	Meredith	Poster*	А	019	Shriver JDOL
Mossman	Emily	Poster	С	077	Shriver JDOL
Mueller	Alex	Poster*	С	101	Shriver JDOL
Mullen	Quentin	Poster*	Α	004	Shriver JDOL
Mullet	Collin	Poster	В	022	Shriver JDOL
Musolff	Clayton	Poster*	Α	04L	Shriver Lobby
Myers	Emily	Poster	В	032	Shriver JDOL
Myers	Mallory	Poster	Α	035	Shriver JDOL
Myers	Mallory	Poster	А	036	Shriver JDOL
Myers	Mallory	Poster*	А	092	Shriver JDOL
Myers	Mickey	Poster	А	059	Shriver JDOL
Nader	Austin	Poster	В	061	Shriver JDOL
Naille	Laney	Poster	А	090	Shriver JDOL
Nakano	Mayu	Poster*	Α	038	Shriver JDOL
Nayak	Vedha	Poster	В	030	Shriver JDOL
Neubecker	Trent	Poster*	А	068	Shriver JDOL
Nisbet	Erika	Poster	В	052	Shriver JDOL
Nixdorf	Jennifer	Poster	А	035	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Nixdorf	Jennifer	Poster	А	036	Shriver JDOL
Nobile	Lauren	Poster	В	042	Shriver JDOL
Noble	Jalen	Poster*	С	079	Shriver JDOL
Nordhaus	Brittany	Poster	С	087	Shriver JDOL
Nordhaus	Brittany	Poster*	А	035	Shriver JDOL
Nordhaus	Brittany	Poster*	А	036	Shriver JDOL
Noviski	David	Poster*	А	014	Shriver JDOL
Nshom	Nicoline	Poster	С	072	Shriver JDOL
O'Donnell	Cody	Poster*	А	100	Shriver JDOL
O'Wesney	Sydney	Poster*	А	037	Shriver JDOL
O'Brien	Annie	Poster	А	101	Shriver JDOL
Oates	Miranda	*	В	07L	Shriver Lobby
Oates	Miranda	Poster*	В	06L	Shriver Lobby
Obih	Prisca	Poster	С	070	Shriver JDOL
Obregon	Mercedes	Poster	А	054	Shriver JDOL
Oddo	Alyssa	Oral	Session VI	ASC-3056B	Armstrong
Okolo	Imokhai	Oral	Session VI	ASC-2042	Armstrong
Olmsted	Sam	Poster	Α	11L	Shriver Lobby
Orzel	Joanna	Poster*	А	053	Shriver JDOL
Osowski	Kira	Poster	Α	035	Shriver JDOL
Osowski	Kira	Poster	А	036	Shriver JDOL
Osowski	Kira	Poster	С	019	Shriver JDOL
Osowski	Kira	Poster*	С	018	Shriver JDOL
Osterholt	Maren	Poster*	Α	025	Shriver JDOL
Osterwisch	Paige	Poster*	В	052	Shriver JDOL
Owen	Malory	Poster*	С	006	Shriver JDOL
Owens	Olivia	Poster*	А	045	Shriver JDOL
Oyeh	Alain	Poster	С	076	Shriver JDOL
Padgett	Josh	Poster	С	073	Shriver JDOL
Pair	Julia	Oral*	Session I	ASC-3001	Armstrong
Pal	Reeti	Poster	В	02L	Shriver Lobby
Pal	Reeti	Poster*	В	063	Shriver JDOL
Palacios	Paolo	Poster	A-B-C	096	Shriver JDOL
Palo	Dylan	Poster*	А	013	Shriver JDOL
Pandian	Rathiesh	Poster*	В	013	Shriver JDOL
Papamarcos	Marie	Poster*	С	086	Shriver JDOL
Pascoe	Emily	Poster	А	089	Shriver JDOL
Patel	Nikita	Poster	А	035	Shriver JDOL
Patel	Nikita	Poster	Α	036	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Patrick	Corrie	Poster	В	074	Shriver JDOL
Patterson	Marian	Poster*	С	049	Shriver JDOL
Peguero	Allison	Poster	В	104	Shriver JDOL
Pena-Lopez	Maria	Poster	В	076	Shriver JDOL
Penhos	Elena	Poster*	С	06L	Shriver Lobby
Perkins	Jaylen	Poster	А	090	Shriver JDOL
Perry	Megan	Poster	С	094	Shriver JDOL
Perry	Megan	Poster	С	095	Shriver JDOL
Perry	Megan	Poster*	В	064	Shriver JDOL
Pescovitz	Andrew	Poster*	А	080	Shriver JDOL
Peters	Jenn	Poster	А	034	Shriver JDOL
Petro	Grace	Poster*	А	085	Shriver JDOL
Pfeil	Daniel	Poster*	А	043	Shriver JDOL
Pham	Nhat	Poster*	С	080	Shriver JDOL
Phillips	Gil	Poster*	В	006	Shriver JDOL
Pochiro	Lana	Poster*	А	028	Shriver JDOL
Polak	Rachel	Poster*	В	105	Shriver JDOL
Polinsky	Alexander	Poster	В	02L	Shriver Lobby
Popovec	Mikala	Poster	В	050	Shriver JDOL
Porter	Anna	Poster*	В	026	Shriver JDOL
Poth	Justin	Poster*	С	005	Shriver JDOL
Poth	Robert	Poster*	В	048	Shriver JDOL
Potineni	Nachiket	Poster*	С	064	Shriver JDOL
Powers	Hanna	Poster	С	071	Shriver JDOL
Poyfair	Rachel	Poster*	А	O1L	Shriver Lobby
Poythress	Lauren	Poster	В	036	Shriver JDOL
Preissing	Ali	Oral*	Session VI	ASC-3001	Armstrong
Prior	Anjali	Poster*	А	016	Shriver JDOL
Proud	Benjamin	Poster	В	079	Shriver JDOL
Pudlo	Giuliana	Poster	С	016	Shriver JDOL
Racadio	Andrew	Poster	В	02L	Shriver Lobby
Rajczyk	Jenna	Poster*	С	040	Shriver JDOL
Raker	Ellee	Poster	А	099	Shriver JDOL
Ramsey	Lauren	Oral*	Session VI	ASC-3056B	Armstrong
Randall	Kristina	Poster*	С	085	Shriver JDOL
Rapp	Anthony	Poster*	А	011	Shriver JDOL
Rarden	Kevin	Poster*	С	024	Shriver JDOL
Rasor	Blake	Poster*	С	106	Shriver JDOL
Raudenbush	Stephanie	Poster*	А	106	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Reece	Adam	Oral*	Session VI	ASC-2042	Armstrong
Reed	Emma	Poster	В	045	Shriver JDOL
Regan	Hannah	Oral*	Session VI	ASC-3001	Armstrong
Reid	Terry	Poster	В	05L	Shriver Lobby
Retcher	Ethan	Poster	В	041	Shriver JDOL
Rhoades	Jeffrey	Poster	А	033	Shriver JDOL
Rice	Savannah	Poster*	А	024	Shriver JDOL
Richardson	Kimberly	Poster	В	078	Shriver JDOL
Richter	Dale	Poster	В	077	Shriver JDOL
Richter	Olivia	Poster*	А	040	Shriver JDOL
Rigot	Megan	Poster	А	082	Shriver JDOL
Rigot	Megan	Poster*	С	045	Shriver JDOL
Rinehart	Dolly	Poster	А	084	Shriver JDOL
Ritchie	Emily	Poster*	А	075	Shriver JDOL
Ritter	Everett	Poster*	С	055	Shriver JDOL
Rivers	Adam	Poster*	В	019	Shriver JDOL
Rizzo	Juliana	Poster	В	032	Shriver JDOL
Rizzo	Juliana	Poster	В	103	Shriver JDOL
Rizzo	Olivia	Poster	В	022	Shriver JDOL
Roach	JP	Poster*	С	052	Shriver JDOL
Roach	Nicklaus	Poster*	В	034	Shriver JDOL
Roan	Danyelle	Poster*	С	027	Shriver JDOL
Roberts	Dannie	Poster*	А	063	Shriver JDOL
Robertson	Hannah	Poster*	А	060	Shriver JDOL
Rodriguez	Chanely	Poster	С	072	Shriver JDOL
Roebel	Zachary	Poster*	С	046	Shriver JDOL
Rook	Jayson	Poster	А	011	Shriver JDOL
Rosalez	Savana	Poster	С	O1L	Shriver Lobby
Ross	Danielle	Poster	А	090	Shriver JDOL
Roti	Caroline	Poster*	С	035	Shriver JDOL
Rowe	Jennifer	Poster	С	102	Shriver JDOL
Rub	Jennifer	Poster*	В	080	Shriver JDOL
Ruby	Hannah	Poster*	А	049	Shriver JDOL
Rumsey	Ann	Oral*	Session V	ASC-3001	Armstrong
Rust	Austin	Poster	А	101	Shriver JDOL
Rutherford	Lena	Oral*	Session I	ASC-3056B	Armstrong
Rutowski	Joshua	Poster*	А	015	Shriver JDOL
Rybakowicz	Ross	Poster	С	002	Shriver JDOL
Saaranen	Michael	Poster*	С	048	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Safer	Brianne	Poster*	С	014	Shriver JDOL
Samanthula	Durga	Poster	В	106	Shriver JDOL
Scarlato	Lili	Poster	А	090	Shriver JDOL
Schad	Lindsey	Poster	В	02L	Shriver Lobby
Schad	Lindsey	Poster*	В	03L	Shriver Lobby
Schad	Lindsey	Poster*	В	04L	Shriver Lobby
Schaeffer	Tiago	Poster	А	O11	Shriver JDOL
Schaeffer	Tiago	Oral*	Session IV	ASC-2042	Armstrong
Schafer	Austin	Poster	А	046	Shriver JDOL
Schapker	Nicole	Poster	С	02L	Shriver Lobby
Scheive	Katelyn	Poster	А	089	Shriver JDOL
Scheive	Katelyn	Poster	С	093	Shriver JDOL
Scheper	Madison	Poster*	А	06L	Shriver Lobby
Schilstra	Keith	Poster	А	035	Shriver JDOL
Schilstra	Keith	Poster	А	036	Shriver JDOL
Schleicher	Drew	Poster	А	090	Shriver JDOL
Schlueter	Thomas	Poster	В	024	Shriver JDOL
Schmitt	Meredith	Poster	В	051	Shriver JDOL
Schneider	Koby	Poster	В	089	Shriver JDOL
Schneider	Lydia	Poster*	С	025	Shriver JDOL
Schroeder	Morgan	Poster	В	036	Shriver JDOL
Schulte	Kyle	Poster*	В	099	Shriver JDOL
Schultz	Jacob	Poster*	А	009	Shriver JDOL
Schultz	Kelsy	Poster	С	003	Shriver JDOL
Schumacher	Tyler	Poster	В	062	Shriver JDOL
Schwabe	Nick	Poster	С	079	Shriver JDOL
Sciaccotta	Francesca	Poster	А	099	Shriver JDOL
Sedacca	Ella	Poster*	А	041	Shriver JDOL
Sedlack	Kole	Poster*	С	105	Shriver JDOL
Seitz	Marisa	Poster	А	086	Shriver JDOL
Sekerak	Joshua	Oral	Session I	ASC-3056B	Armstrong
Selby	Ashley	Poster	В	079	Shriver JDOL
Semko	Sierra	Poster*	А	076	Shriver JDOL
Serafin	Rachel	Poster	В	02L	Shriver Lobby
Serafin	Rachel	Poster*	В	017	Shriver JDOL
Seto	Tori	Poster*	В	O11	Shriver JDOL
Severin	Dana	Poster*	С	073	Shriver JDOL
Shea	Allie	Poster*	В	095	Shriver JDOL
Sheely	Matt	Poster	В	055	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Shelton	Trevor	Poster	В	072	Shriver JDOL
Shields	Jessica	Poster	В	062	Shriver JDOL
Shin	Eric	Oral	Session VI	ASC-2042	Armstrong
Shomo	Amy	Poster	В	084	Shriver JDOL
Short	Audrey	Poster*	С	060	Shriver JDOL
Short	Samantha	Poster	В	076	Shriver JDOL
Sidler	Elaine	Poster*	В	021	Shriver JDOL
Sieman	Katherine	Poster*	В	010	Shriver JDOL
Sifuentes	Caitlin	Poster	В	040	Shriver JDOL
Silber	Rachel	Poster	В	02L	Shriver Lobby
Simbartl	Nick	Poster	А	034	Shriver JDOL
Simmons	Eleanor	Poster	А	072	Shriver JDOL
Simon	Jessica	Poster	В	081	Shriver JDOL
Simoni	Aaron	Poster*	В	015	Shriver JDOL
Simpson	Brittany	Poster	С	072	Shriver JDOL
Simpson	Jason	Poster*	С	05L	Shriver Lobby
Singstock	Mitchell	Poster	А	032	Shriver JDOL
Skeels	Amy	Poster	А	059	Shriver JDOL
Skelly	Brooke	Poster	В	056	Shriver JDOL
Slattery	Jessie	Oral*	Session V	ASC-3001	Armstrong
Smith	Kendall	Poster	В	104	Shriver JDOL
Smith	Kendall	Poster*	С	002	Shriver JDOL
Smith	Kyle	Poster	В	101	Shriver JDOL
Smith	Steph	Poster	A-B-C	096	Shriver JDOL
Smith	Zachary	Poster*	С	081	Shriver JDOL
Sommerfield	Nate	Poster	А	068	Shriver JDOL
Sorice	Sabato	Poster*	В	028	Shriver JDOL
Spellacy	Nicole	Poster*	В	023	Shriver JDOL
Spinello	Brian	Poster*	А	050	Shriver JDOL
Sprock	Leah	Poster	В	046	Shriver JDOL
Sprowles	Kimberly	Poster	С	013	Shriver JDOL
Spurgus	Nicholas	Poster	В	044	Shriver JDOL
Stair	Landen	Poster	А	101	Shriver JDOL
Statczar	Alexandra	Poster*	В	024	Shriver JDOL
States	Lindsey	Poster*	А	093	Shriver JDOL
Stefan	Symeon	Poster	А	013	Shriver JDOL
Stelzer	Danielle	Poster	С	084	Shriver JDOL
Stemen	Claire	Oral*	Session IV	ASC-3056B	Armstrong

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Stewart	Isaiah	Poster*	С	036	Shriver JDOL
Stickley	Stickley	Poster	С	O3L	Shriver Lobby
Stillman	Ellie	Poster	В	050	Shriver JDOL
Stoecklein	Danie	Poster	А	023	Shriver JDOL
Stradling	Brandon	Poster	В	051	Shriver JDOL
Strassburger	Courtney	Poster	В	071	Shriver JDOL
Strauss	Bethany	Poster*	В	094	Shriver JDOL
Street	Brandon	Poster	А	101	Shriver JDOL
Strickley	Michael	Poster*	С	012	Shriver JDOL
Suarez	Diana	Poster*	А	07L	Shriver Lobby
Sullivan	David	Poster	С	025	Shriver JDOL
Sullivan	Emily	Poster	В	024	Shriver JDOL
Sullivan	Rachel	Poster	А	090	Shriver JDOL
Sumaita	Inma	Oral*	Session IV	ASC-3001	Armstrong
Summers	Kevin	Poster*	А	071	Shriver JDOL
Summers	Kevin	Poster*	В	065	Shriver JDOL
Supeck	Tim	Poster	А	101	Shriver JDOL
Swope	Alaina	Poster*	А	077	Shriver JDOL
Taggart	Carley	Poster*	В	056	Shriver JDOL
Tailor	Jade	Poster	В	051	Shriver JDOL
Tangeman	Jared	Oral*	Session I	ASC-2042	Armstrong
Tantiyartyanontha	Takdanai	Oral*	Session VI	ASC-2042	Armstrong
Tate	Mason	Poster*	В	104	Shriver JDOL
Tatro	Alan	Poster*	С	059	Shriver JDOL
Taylor	Alec	Poster	С	079	Shriver JDOL
Taynor	Kristina	Poster*	Α	094	Shriver JDOL
Terrace	Brad	Oral*	Session IV	ASC-3001	Armstrong
Theberge	Allison	Poster*	Α	051	Shriver JDOL
Thomas	Gwendolyn	Poster*	С	062	Shriver JDOL
Thomas	Nicholas	Poster*	С	099	Shriver JDOL
Thompson	Kaitlin	Oral*	Session III	ASC-3056B	Armstrong
Thompson	Kayla	Poster	В	009	Shriver JDOL
Thompson	Shelby	Poster*	С	065	Shriver JDOL
Thompson	Victoria	Poster*	Α	059	Shriver JDOL
Thurston	Lindsay	Poster*	А	09L	Shriver Lobby
Timmons	Eric	Poster	В	104	Shriver JDOL
Titterington	Sarah	Poster	С	071	Shriver JDOL
Trevethan	Mackenzie	Poster*	В	035	Shriver JDOL
Trimboli	Joshua	Poster*	В	087	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	Building Location
Trowbridge	Amy	Poster	А	051	Shriver JDOL
Trowbridge	Amy	Poster*	А	052	Shriver JDOL
Truster	Mary	Poster*	С	078	Shriver JDOL
Turoff	Kylie	Poster	С	071	Shriver JDOL
Unger	Alexandra	Poster*	С	003	Shriver JDOL
Upshaw	Chanell	Poster	В	02L	Shriver Lobby
Upshaw	Chanell	Poster*	В	070	Shriver JDOL
Uwingeneye	Claire	Poster	В	073	Shriver JDOL
Vanderhoof	Nick	Poster*	С	037	Shriver JDOL
VanDoren	Nicole	Poster	С	066	Shriver JDOL
Victoria	Ruben	Poster	А	04L	Shriver Lobby
Viterisi	Marai	Poster	В	022	Shriver JDOL
von Carlowitz	Graham	Poster*	С	017	Shriver JDOL
Von Der Vellen	Bryan	Poster*	С	019	Shriver JDOL
Vrzal	Nick	Poster*	В	055	Shriver JDOL
Wadsworth	Tessa	Poster	В	018	Shriver JDOL
Wagner	Sara	Poster	А	052	Shriver JDOL
Walton	Julia	Poster	С	065	Shriver JDOL
Wang	Hehe	Oral*	Session II	ASC-3001	Armstrong
Ward	Sarah	Poster*	А	086	Shriver JDOL
Wasson	Brittney	Poster	В	078	Shriver JDOL
Weaver	Kyle	Poster*	А	103	Shriver JDOL
Weaver	Nikki	Poster	С	015	Shriver JDOL
Weesner	Rachael	Poster*	А	072	Shriver JDOL
Weiland	Abigail	Poster*	В	092	Shriver JDOL
Wesseh	Rebecca	Poster	А	054	Shriver JDOL
Wexler	Micaela	Poster*	В	046	Shriver JDOL
Whalen	Danika	Poster	А	095	Shriver JDOL
White	Robert	Poster*	В	061	Shriver JDOL
Wiater	Naomi	Poster*	С	056	Shriver JDOL
Wigton	Connor	Poster	А	11L	Shriver Lobby
Wilkins	Keiko	Poster*	В	089	Shriver JDOL
Wilkins	Keiko	Poster*	В	090	Shriver JDOL
Wilkins	Keiko	Poster*	В	091	Shriver JDOL
Williams	Aonesti	Poster	А	044	Shriver JDOL
Williams	Tisa	Poster*	В	077	Shriver JDOL
Willliam	Rebecca	Poster	А	090	Shriver JDOL
Wilson	Emily	Poster*	А	064	Shriver JDOL
Wilson	Le'Andra	Poster*	В	076	Shriver JDOL

Last Name	First Name	Туре	Poster Session	Poster Number	<b>Building Location</b>
Wilson	Sarah	Poster*	В	088	Shriver JDOL
Winstel	Maggie	Poster*	В	066	Shriver JDOL
Wise	Megan	Poster	С	077	Shriver JDOL
Wittman	Jane	Poster	С	075	Shriver JDOL
Wnek	Olivia	Poster	В	038	Shriver JDOL
Wnek	Olivia	Poster	В	039	Shriver JDOL
Wohl	Sarah	Poster*	А	101	Shriver JDOL
Woodruff	Andrew	Poster*	С	082	Shriver JDOL
Woods	Hannah	Poster*	С	028	Shriver JDOL
Woods	Kelsey	Poster	А	090	Shriver JDOL
Worley	Claudia	Poster*	С	039	Shriver JDOL
Worner	Cassandra	Poster	С	092	Shriver JDOL
Worner	Cassandra	Poster*	А	046	Shriver JDOL
Wu	Jiayu	Poster*	С	057	Shriver JDOL
Wu	Junrong	Poster	С	058	Shriver JDOL
Wyand	Rachel	Poster	А	059	Shriver JDOL
Wyand	Sarah	Poster*	В	086	Shriver JDOL
Xu	Mengyang	Poster*	С	026	Shriver JDOL
Yamada-Killilea	Marie	Poster	С	014	Shriver JDOL
Younce	Abby	Poster	А	081	Shriver JDOL
Young	Anthony	Oral*	Session IV	ASC-2042	Armstrong
Youngwirth	Samantha	Poster*	В	042	Shriver JDOL
Zerkle	Hannah	Poster*	А	098	Shriver JDOL
Zhang	Jingwei	Poster	А	083	Shriver JDOL
Zhang	Yunhan	Poster*	А	047	Shriver JDOL
Zhao	Simin	Poster	С	091	Shriver JDOL
Zhao	Xiaoxiao	Poster*	С	058	Shriver JDOL
Zhuo	Linzhao	Oral*	Session II	ASC-2042	Armstrong
Ziegman	Jacqueline	Poster*	С	038	Shriver JDOL

## Notes

## Notes



























### Your work goes on from today

## An invitation from Jerome U. Conley Dean and University Librarian

Congratulations on presenting your research at Miami University's 23rd annual Undergraduate Research Forum. Our University Libraries team commends you for using your time as an undergraduate student to not only learn and grow but also to create and contribute something to the collected knowledge of our world.

That contribution does not need to end with today's Undergraduate Research Forum.

The Miami University Scholarly Commons, hosted by the University Libraries, serves as an institutional repository for high quality academic work like yours. It preserves journals, capstone projects, presentation posters, award-winning papers and more, making the important scholarly work of our students and faculty accessible for the future.

We would like to extend you the opportunity to publish your poster in the Miami Scholarly Commons.

In addition to having your work preserved and retaining ownership of your copyright, you will receive a permanent citable reference to your work for your résumé. To upload your files to the Scholarly Commons, visit **MiamiOH.formstack.com/forms/msc**.

Again, congratulations on your achievement. We hope, in the midst of your research, that you have discovered a passion for discovery that extends beyond today. Through the resources and expertise we offer, the Miami University Libraries are eager to support you in the next leg of your research journey.

Sincerely,

Jerome U. Conley
Dean and University Librarian

Contact Information

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MiamiOH.edu/oru