13th Annual UNDERGRADUATE RESEARCH SYMPOSIUM

March 26, 2013
Strozier Library
10:00 a.m.–2:00 p.m.
WELCOME TO THE THIRTEENTH ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM!

Today we celebrate outstanding undergraduate research. The students who will present their projects have enhanced their undergraduate experiences by taking on directed research and creative activity under the supervision and mentorship of some of Florida State University’s most distinguished faculty.

Undergraduates from all disciplines are presenting current or recently completed academic projects showcasing the diversity of topics, approaches, and interests at Florida State University. This year also marks the first year of FSU’s Undergraduate Research Opportunity Program (UROP). Open only to first- and second-year students, UROP students enroll in a yearlong UROP colloquium course, serve as a research assistant to a professor, and present their research projects at this symposium. You can identify these students by the UROP logo on their posters.

The Research Symposium serves as a resource for undergraduates not yet engaged in research and creative pursuits to learn how fellow students have developed their intellectual interests, current projects, and faculty connections. The Research Symposium also demonstrates to students, faculty, staff, alumni, and the greater Tallahassee community that student research builds upon and enriches the FSU undergraduate experience.

If you’re attending this event as a student, we hope you’ll be inspired to develop your own research or creative projects. We invite you to visit our website at http://our.fsu.edu/ to apply to UROP and learn about the many ways undergraduates can get involved with research at Florida State University.
POSTER PRESENTATIONS

10:00 a.m.–12:00 p.m.

Ave Atque Vale: Scott Fitzgerald, Ernest Hemingway, Thomas Wolfe and Charles Scribner’s Sons
Annalise Kapusta
Faculty Mentor: Dr. John Fenstermaker, English

Coordinated Gambling Feedback Processing Indexed by Feedback Negativity and Reward Positivity ERP Components, and Pupil Dilation
Elizabeth Mulligan
Faculty Mentor: Dr. Edward Bernat, Psychology

Transitional Justice in the Absence of Genuine Political Transition
Mara Denny
Faculty Mentor: Dr. Eric Wiebelhaus-Brahm, Political Science

An ERP Investigation of the Automatic Evaluation Effect
Cody Call
Faculty Mentor: Dr. Michael Kaschak, Psychology

Brain-Derived Neurotrophic Factor and Epidermal Growth Factor Activate Neuronal N-calpain via Mitogen-Activated Protein Kinase-Dependent Phosphorylation
Adhish Singh
Faculty Mentor: Dr. Hussam Jourdi, Medicine

Armaments of Latin American Revolutionaries
Rachel Crooks
Faculty Mentor: Dr. Rafe Blaufarb, History

Breast Cancer Genomics
Caroline Kiernan
Faculty Mentor: Dr. Elizabeth Slate, Statistics

Checkpoint Silencing Regulation by Bmh1
Curtis Gravenmier
Faculty Mentor: Dr. Yanchang Wang, Medicine

Unlocking the Code of the Street: A Biosocial Perspective
Michael Maguire
Faculty Mentor: Dr. Kevin Beaver, Criminology

Determining the Toxicity of Dichloroacetic Acid on Stem Cell Aggregates
Granville Roberts
Faculty Mentor: Dr. Teng Ma, Biomedical Engineering

Embodied Cognition in Language Processing
Stephanie Hagelberger
Faculty Mentor: Dr. Michael Kaschak, Psychology

Embodied Cognition: Assessing the Role of the Motor Cortex Function in Processing Action Verbs vs. Non-Action Verbs
Chase Roberts
Faculty Mentor: Dr. Michael Kaschak, Psychology

Financial Therapy
Roxy Marrese
Faculty Mentor: Dr. Thomas Smith, Social Work

If You’ve Got It, Flaunt It: Why Men and Women Flaunt Attractive Partners
Zachary Kustin
Research Mentor: Bo Winegard, Psychology

Image Analyses on Captured Cardiac Nuclei in Wild Type and Diseased Cells
Katie Ward
Faculty Mentor: Dr. P. Bryant Chase, Biology

Local Governance and Sustainability
Sarah Green
Faculty Mentor: Dr. Richard Feiock, Public Administration and Policy

The Impact of Online Class Content on Mental Health Empirical Knowledge and Critical Thinking of MSW Students
Matthew Prince
Faculty Mentor: Dr. Tomi Gomory, Social Work

Analysis of Pelvis Morphology and Birthing Practices: Comparisons of Modern and Prehistoric Humans
Jessica Engel
Faculty Mentor: Dr. Geoffrey Thomas, Anthropology

Motivation, Social Engagement, and Persistence of College Freshmen
Kenneth Smith
Faculty Mentor: Dr. Alysia Roehrig, Education

Native American Stereotypes and the Digital Card Archive
Victoria Sunnergren
Faculty Mentor: Dr. Michael Neal, English
10:00 a.m. – 12:00 p.m.

Investigating Language Production across Samples from the U.S. and U.K.
Elisabeth Slifkin
Faculty Mentor: Dr. Michael Kaschak, Psychology

NHRI Data Project
Eric Martinez
Faculty Mentor: Dr. Will Moore, Political Science

Obsessive-Compulsive Disorder and the Role of Incompleteness in Clinical Perfectionism
Brittney Dane
Faculty Mentor: Dr. Jesse Cougle, Psychology

Psychosocial Intervention for Children and Youth Obesity
Barbara Dietrick
Faculty Mentor: Dr. Amy Ai, Social Work

Sexually Transmitted Infections and Pregnancy Outcomes, a Systematic Review
Sydney Jones
Faculty Mentor: Dr. Karla Schmitt, Nursing

Single Crystal Synthesis and Characterization of the BaLn2O4 Family
Ever Velasquez
Faculty Mentor: Dr. Jeffrey Whalen, National High Magnetic Field Laboratory

Smokey Hollow
Colin Behrens
Faculty Mentor: Dr. Jennifer Koslow, History

Social Conflict and Self-Control
Nicole Seymour
Faculty Mentor: Dr. Roy Baumeister, Psychology

Statistical Analysis of High-Dimensional Macroeconomic Data
Anthony Nguyen
Faculty Mentor: Dr. Yiyuan She, Statistics

Study of Gd5Si4 and Related Compounds for Self-Controlled Hyperthermia Applications
Ryan Rhoades
Faculty Mentor: Dr. Shahid Shaheen, Physics

Syntactic and Semantic Development in Adolescents’ Persuasive Discourse
Desirae Ott
Faculty Mentor: Dr. Shannon Hall-Mills, Communication Science and Disorders

Michelle Sauer
Faculty Mentor: Dr. Peter Garretson, History

Characterization of Interaction between Tegument Proteins ORF45 and ORF33 of Hamma Herpesviruses, a Possible Antiviral Target to the End
Leigh Fremuth
Faculty Mentor: Dr. Fanxiu Zhu, Biology

The Corpus Tibullianum
Jenine Massat
Faculty Mentor: Dr. Laurel Fulkerson, Classics

The Effect of Different Word Types on Neural Responses
Breanne Ereckson
Faculty Mentor: Dr. Michael Kaschak, Psychology

The International Criminal Court and Libya
Zach Lenart
Faculty Mentor: Dr. Eric Wiebelhaus-Brahm, Political Science

The Rural and Urban Immigrant: New Hispanic Immigrant Destinations and Their Implications for Immigrants and Their Communities
Alexandra Olsen
Faculty Mentor: Dr. Deana Rohlinger, Sociology

The Use of Neurosteroids for the Treatment of Traumatic Brain Injury
Kelcey Day
Faculty Mentor: Dr. Jacob Vanlandingham, Medicine

Truth Commissions
John Maksimik
Faculty Mentor: Dr. Eric Wiebelhaus-Brahm, Political Science

UN Intervention in Intrastate Conflicts and Extent of Civilian Protection
Taylor Lovejoy
Faculty Mentor: Dr. Megan Shannon, Political Science
SYMPOSIUM at a Glance

POSTER PRESENTATIONS

10:00 a.m. – 12:00 p.m.
Victorian Telecommunication
John Handel
Faculty Mentor: Dr. Paul Fyfe, English

The Ode
Valerie Gallucci and Isabel Willetts
Faculty Mentor: Dr. Barbara Hamby, English

The Effect of Social Defeat, Isolation and Exercise in Depression
Claudia Rivero
Faculty Mentor: Dr. Jose R. Pinto, Medicine

Psychopathy, Empathy, and Gender
Kristin Klimley
Faculty Mentor: Dr. Joyce Carbonell, Psychology

A Versatile and Inducible Lytic Replication System of Kaposi’s Sarcoma Associated Herpesvirus
Zach Turpin
Faculty Mentor: Dr. Fanxiu Zhu, Biology

12:00 p.m. – 2:00 p.m.
16th Century Odes
Isabel Willetts
Faculty Mentor: Dr. Barbara Hamby, English

A Nejire Knockdown Screen Used to Understand the Functions of Nejire and Its Role in Related Pathways
Myles Anderson
Faculty Mentor: Dr. Wu-Min Deng, Biology

A Therapeutic Peptide to Provide Help during Stroke
Omar Cadenas
Faculty Mentor: Dr. Ewa Bienkiewicz, Medicine

Argument Driven Inquiry in Middle and High School Science Classes
Kelsey Youngman
Faculty Mentor: Dr. Patrick Enderle, Learning Systems Institute

Effects of Host Plant Species on Feeding and Behavioral Preferences of Littoraria Irrorata
Nohelia Orozco
Faculty Mentor: Dr. A. Randall Hughes, Biology

An Examination of the Relationship between Posttraumatic Stress Disorder and Emotional Regulation Difficulties
Daphne Durmaz
Faculty Mentor: Dr. Jesse Cougle, Psychology

12:00 p.m. – 2:00 p.m.
Financial Therapy
Joseph Vance
Faculty Mentor: Dr. Thomas Smith, Social Work

Free Energy Difference of R282Q
Klariz Teves
Faculty Mentor: Dr. Wei Yang, Chemistry

Gender and Popular Music
Tova Kranz
Faculty Mentor: Dr. Leigh Edwards, English

Graphene Nanoribbons
Ilya Piskun
Faculty Mentor: Dr. Igor Alabugin, Chemistry

Impaired Cardiovagal Modulation is Associated with the Hypertrophic Cardiomyopathy Mutation R21C in Cardiac Troponin I
Stefano Leitner
Faculty Mentor: Dr. Jose Pinto, Medicine

Assessment of Medication Adherence with Epilepsy Patients
Leah Genn
Faculty Mentor: Dr. Barbara Licht, Psychology

Increasing Human Papillomavirus Vaccine Acceptability by Tailoring Messages to Young Adult Women’s Perceived Barriers
Saira Bari
Faculty Mentor: Dr. Mary Gerend, Medicine

Looking for Clues to Alzheimer’s Disease in the Hippocampus of Mice Models
Elizabeth Ogunrinde
Faculty Mentor: Dr. Richard Nowakowski, Biomedical Sciences

Morphometric Analysis of Cranial Features
Thomas Arnold
Faculty Mentor: Dr. Dennis Slice, Computational Science

NGOs and Their Effects on Transitional Justice and Human Rights
John Willis
Faculty Mentor: Dr. Eric Wiebelhaus-Brahm, Political Science

Nitrogen Deposition and Its Bottom Up Effects on Aphids in a Community Network
Kathryn Chandler
Faculty Mentor: Dr. Nora Underwood, Biology
12:00 p.m.–2:00 p.m.

**Long-Term Posttraumatic Growth Following Open-Heart Surgery: Protector and Mediator**
Chloe Wilcox  
Faculty Mentor: Dr. Amy Ai, Social Work

**Paleoecology in the Tibetan Basin as Characterized by Isotopic Fractionation Data**
James Walker  
Faculty Mentor: Dr. Yang Wang, Geochemistry

**Prediction and Observed Magnetic Behaviors of [Fe(tpze)2]2+ and [Fe(tpma)(mbim)]2+**
Samuel Bacaner  
Faculty Mentor: Dr. Michael Shatruk, Chemistry

**Reading Comprehension Intervention in Adolescents**
Alexandra Schlechte  
Faculty Mentor: Dr. Jeanne Wanzek, Education

**Religious Involvement as a Component of Acculturation: Mental Health of Subgroup Asian Americans Nationwide**
Dulny Salazar  
Faculty Mentor: Dr. Amy Ai, Social Work

**Structural Changes Associated with the Calcification of Nashua Formation Clam Fossils in Fort Drum, Florida**
Shannon Stacklyn  
Faculty Mentor: Dr. Leroy Odom, Geology

**Student Veterans: Life in Transition**
Joseph Manning  
Faculty Mentor: Dr. Doug Schrock, Sociology

**The Biochemistry of Viral Adaptation**
Anneliese Morrison  
Faculty Mentor: Dr. Darin Rokyta, Biology

**The Effect of Distance between Firms and Their Monitors on Earnings Management**
Manav Sheth  
Faculty Mentor: Dr. Jeffrey Paterson, Accounting

**Touch in Real Time**
Tiani Schwindt  
Faculty Mentor: Prof. Holly Hanessian, Art

**Modulation of Cellular Kinase Signaling Pathways by the Human Tumor Virus, KSHV**
Sarah Tepper  
Faculty Mentor: Dr. Fanxiu Zhu, Biology

**Americans in Paris, Paris in Americans**
Chase Shiflet and Kate Mazzotta  
Faculty Mentor: Dr. William Cloonan, Modern Languages

**How Do the Personal, Family Situations, and Academic Factors Relate to Student Motivation and Intentions to Persist in College?**
Amy Nicotra  
Faculty Mentor: Dr. Alysia Roehrig, Education

**The Effect of Mosquito Activity on Bacterial Growth in Pitcher Plant Communities**
Jordan Holmes and Rachel Schloth  
Faculty Mentor: Dr. Thomas Miller, Biology

**Transitional Justice in French North Africa**
Janelle King  
Faculty Mentor: Dr. Eric Wiebelhaus-Brahm, Political Science

**Scroll Wave Filaments Self-Wrap around Unexcitable Torus-Shaped Heterogenities**
Aaron Ehresman  
Faculty Mentor: Dr. Oliver Steinbock, Chemistry

**Investigating the Role of Sar1 in Early Protein Transport**
Kerri Johnson  
Faculty Mentor: Dr. Scott Stagg, Chemistry and Biochemistry

**The Relationship between SES and Mental Health Treatment with Depression during Pregnancy**
Aura Cely and Nicole McBride  
Faculty Mentor: Dr. Heather Flynn, Medicine

**Pharaoh on Trial: The Criminal Trial of Hosni Mubarak and Its Impact on Transitional Justice**
Adrienne Resha  
Faculty Mentor: Dr. Eric Wiebelhaus-Brahm, Political Science

**Underserved Families**
Erin Bor  
Faculty Mentor: Dr. Kendal Holtrop, Family and Child Sciences

**Brief Health and Stress Computer Intervention for Anxiety**
Katelyn Cummings  
Faculty Mentor: Dr. Brad Schmidt, Psychology

**KSHV Research**
Raven Peterson  
Faculty Mentor: Dr. Fanxiu Zhu, Biology
SYMPOSIUM at a Glance

GROUP POSTER PRESENTATIONS

10:00 a.m. – 2:00 p.m.

Music Theory and Dyscalculia
Blaise Denton, Michael Rivera, David Simonton and Hayley Stayman
Faculty Mentor: Dr. Jane Clendinning, Music

Mindfulness-Oriented Recovery Enhancement for Chronic Pain Patients Receiving Opioid Therapy
Anne Benitez, Corrie Hodges and Deidre Krzanowski
Faculty Mentor: Dr. Eric Garland, Social Work

Synthesis of 5-iodo-1,2,3-triazole from Organic Azide and Terminal Alkyne - Ligand Acceleration Effect, Substrate Scope, and Recommended Procedures
David Barsoum, Jason Deeb and Najeah Okashah
Faculty Mentor: Dr. Lei Zhu, Chemistry

The Physics of Stars
Kaelyn Badura, Aaron Magilligan, Jennifer Ranta and Cornelius van Wyk
Faculty Mentor: Dr. Jorge Piekarewicz, Physics
10:10 a.m.
Facebook Use and Disordered Eating in College Women
Annalise Mabe
Faculty Mentor: Dr. Pamela Keel, Psychology
Room 107-K

Comparison of Public Perception of NATO in the United States and France
Emily Choate
Faculty Mentor: Dr. William Cloonan, Modern Languages
Room 107-J

The Effects of Trilingualism on Word Processing
Jendayi Dillard
Faculty Mentor: Dr. Gretchen Sunderman, Modern Languages
Room 107-H

10:35 a.m.
Rainwater Purification: A Local Sustainable Solution for a Global Epidemic
Brett Reeve
Faculty Mentor: Dr. Michael Watts, Engineering
Room 107-K

Driven to Distraction? The Effect of Red Light Running Camera Flashes on Attention and Eye Movement Control
Robert Sall
Faculty Mentor: Dr. Walter Boot, Psychology
Room 107-J

Gamification: Gaming in Education
Edgar Corral
Faculty Mentor: Dr. Dina Vyortkina, Education
Room 107-H

11:00 a.m.
Political Discontent, Anger, and Support for Social Movements: Analyzing Support for the Occupy Wall Street and Tea Party Movements
Richard Farinas
Faculty Mentor: Dr. Cherie Maestas, Political Science
Room 107-K

The Degree of Integratability Required between Cognitive Representations and Visual Perceptions to Facilitate Sentence Comprehension
Virginia Prestwood
Faculty Mentor: Dr. Michael Kaschak, Psychology
Room 107-J

The Cellist’s Guide to Finger Independence
Javier Sinha
Faculty Mentor: Prof. Greg Sauer, Music
Room 107-H

11:25 a.m.
A Critical Analysis of Jihad and Just War Theory
Harrison DuBosar
Faculty Mentor: Dr. John Kelsay, Religion
Room 107-K

Effects of Oral L-citrulline on Arterial Function in Regular Coffee Consumers
Zachary Grunewald
Faculty Mentor: Dr. Arturo Figueroa, Nutrition, Food, and Exercise Science
Room 107-H

Analyzing Young Adult Literature Using the Joan F. Kaywell Book Award
Alyssa Maige
Faculty Mentor: Dr. Elisa Scherff, Education
Room 107-G

12:10 p.m.
Fair Trade Tea and Sustainable Development in the Ecuadorian Amazon
Evan Marcus
Faculty Mentor: Dr. Michael Uzendoski, Modern Languages
Room 107-K
12:10 p.m.
Communication in Routines between Caregivers and Children with Down Syndrome
Kelsey Hendershott
Faculty Mentor: Dr. Juliann Woods, Communications
Room 107-H

The Effects of Kainic Acid Lesions in the Internal Globus Pallidus on Motor Performance and Sequence Learning: Application of Kinematics Analysis
Marilyn Horta
Faculty Mentor: Dr. Robert Turner, University of Pittsburgh Department of Neurobiology and Center for the Neural Basis of Cognition
Room 107-G

12:35 p.m.
Zinc is Required for Adult Stem Cell Proliferation and Survival
Shaye Hagler
Faculty Mentor: Dr. Cathy Levenson, Biomedical Sciences
Room 107-K

Members and Vote-Changing: A Case Study of the 2008 Bailout
Joshua Gendal
Faculty Mentor: Dr. Brad Gomez, Political Science
Room 107-J

The Damaging Effects of Concentrated Media Ownership
Richelle Crotty
Faculty Mentor: Dr. Jennifer Proffitt, Communications
Room 107-H

1:00 p.m.
The Causes and Consequences of Displacement in Sudan, and Future Prospects for Sudan’s Internally Displaced Persons (IDPs)
Madison Marks
Faculty Mentor: Dr. Peter Garretson, History
Room 107-K

Random Walk in Orthogonal Space to Achieve Efficient Free-Energy Simulation of Complex Systems
Michelle McCullers
Faculty Mentor: Dr. Wei Yang, Chemistry
Room 107-J

The Muted Candidate
Christopher Waldeck
Faculty Mentor: Dr. Stephen McDowell, Communications
Room 107-H

1:25 p.m.
David Miller
Faculty Mentor: Dr. Sonya Cronin, Religion
Room 107-K

The Musical Gesture: An Evaluation of Musical Aspects Interconnected with Motion
Anna Teague
Faculty Mentor: Dr. Nancy Rogers, Music
Room 107-J

Effects of Habitat Characteristics and Environmental Factors on Zooplankton Abundance and Diversity in St. Joseph’s Bay, Florida: A Small-Scale Study
Abby Spangler
Faculty Mentor: Dr. Don R. Levitan, Biology
Room 107-H
The Office of Undergraduate Research extends great appreciation and gratitude to
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