



The Graduate Student Senate (GSS) represents the concerns of the graduate student community of Kent State University. The Graduate Student Senate also serves as an allocation body by providing funding to graduate students and graduate organizations for speakers, workshops, social events and professional travel.

2010 - 2011 Executive Board

Deb Lamm	Executive Chair
Lindsey Ayers	Vice Exec. Chair
Megan Williamson	Finance Chair
Courtney Werner	Info. Services Chair
Lisa Regula Meyer	Advocacy Chair
Michael Allen	Symposium Chair
Ashlie Louie Socher	Admin. Assistant



Graduate Student Senate Presents 26th Annual Graduate Research Symposium “Building Leaders for Tomorrow”



Featuring:

- Dr. Barry Franklin, Kent Alumnus and ACSM
- Dr. W. Michael Sherman, University of Akron Provost

Table of Contents

Welcoming Letter	3
Schedule of Events	4
Symposium Participants	5
Oral Presentations: Room 313	8
Oral Presentations: Room 314	11
Oral Presentations: Room 315	13
Poster Presentations	17
Special Thanks	28

A Special Thanks to All Those Involved

- Graduate Student Senate
- Kent State University
- Department of Geography

People

- Dr. Barry Franklin
 - FACSM and Kent State Alumnus
- Dr. W. Michael Sherman
 - University of Akron Provost
- Dr. Ellen Glickman
 - Professor Exercise Physiology
- Dr. Kate McAnulty
 - Director Graduate Student Services
- Mrs. Claire Coseno
 - Senior Business Manager
- Jessica Houtz
 - University Conference Bureau
- All Judges and Panel Session Chairperson

Local Businesses

- F. J. Kluth Art Gallery
 - Heavenly Cupcakes
 - Kent Natural Foods
 - Main Street Kent
 - Stow Target
 - WKSU
-

Poster Presentations: 2nd Floor KIVA

36. *Detection of Immune Complexes using Chiral Nematic Chitin Fibrils* by STEVE FIESTER of the Department of Biological Sciences
37. *Modulation of Transient Receptor Potential Cation Channel, Subfamily A, Member 1 (TRPA1) activity by Cdk5* by MICHAEL A. SULAK of the School of Biomedical Sciences
38. *Ordered Arrays of FtsZ, a Bacterial Division Protein* by JAMES C. REDEARN of the Department of Biological Sciences
39. *RNA oxidation in the brain of Alzheimer's disease* by QUNXING DING of the Department of Biological Sciences
40. *Exercise in normobaric hypoxia exacerbates symptoms of acute mountain sickness but does not impact mood state in middle-aged males* by CHUL-HO KIM of the School of Health Sciences
41. *Differential Presentations between cortical and white matter demyelination pathology in Atypical Multiple Sclerosis Brains* by MEGAN HENDRICKSON of the School of Biomedical Sciences
42. *Infrared Spectroscopic imaging of Multiple Sclerosis Tissue* by STEPHAN WOODS of the Department of Chemistry
43. *Internet Memes IRL* by JESSICA HEFFNER of the Department of English

Welcome Letter

On behalf of the Graduate Student Senate, I would like to welcome you to the 26th Annual Graduate Research Symposium. This year's event continues another Kent State tradition by celebrating scholarship and academic achievement. For the first time, we've also welcomed undergraduate students to participate in our Symposium which focuses on "Building Leaders for Tomorrow".

Our keynote speaker, Dr. Barry Franklin, not only is a Golden Flash but also highly regarded as an influential researcher and educator throughout his field of cardiac rehabilitation. Publishing over 500 referred articles and 21 books, Dr. Franklin exemplifies the value of Kent State education. His presentation "Good Luck is Something YOU Create: Ten Behavioral Skills of Highly Successful People" examines the wide range of skills needed in order to succeed in an ever-changing world.

Similarly, Dr. W. Michael Sherman, the Provost of the University of Akron, symbolizes academic success. His pivotal role in academic research and focus on scholarship fits well within the mission of the Graduate Student Senate. Dr. Sherman's Luncheon presentation is entitled, "Now and Beyond: Anticipating the Future".

We hope you this year's Symposium is rewarding and inspiring. Our achievements are many and our crucial role as ambassadors of Kent State University will continue to drive us into the future as leaders of tomorrow.

On Behalf of Graduate Student Senate,

Michael J. Allen
GSS Symposium Chair

Schedule of Events

Thursday, March 31, 2011

Keynote Address 4:30PM – 6:00PM

Kent Student Center Governance Chambers

Featuring *Good Luck is Something YOU Create: Ten*

Behavioral Skills of Highly Successful People

Kent State University Alumnus Dr. Barry Franklin, FACSM

Friday, April 1, 2011

Registration 8:30AM – 11:00AM

Kent Student Center Room 204

Oral Presentations 9:00AM – 12:00PM

Kent Student Center Rooms 313-315

Poster Presentations 10:00AM – 12:00PM

Kent Student Center (KIVA) 2nd Floor

Symposium Luncheon 12:00PM - 3:00PM

Kent Student Center Room 306

Featuring *Now and Beyond: Anticipating the Future*

Dr. W. Michael Sherman, University of Akron Provost

Poster Presentations: 2nd Floor KIVA

29. *Ppp1cc gene promoter is testis specific and functions to maintain PP1 γ 1 and high levels of PP1 γ 2 in Sertoli cells and testicular germ cells, respectively for normal spermatogenesis* by NILAM SINHA of the Department of Biological Sciences
30. *Arachidonic acid-induced COX-2 expression in neuroblastoma cells involves histone H3 phosphorylation and acetylation* by SARA HOUSTON of the Department of Biological Sciences
31. *Inheritance of chloroplast DNA (cpDNA) in Lobelia siphilitica* by ALICIA DUREWICZ of the Department of Biological Sciences
32. *Influence of time of day on the locomotor response to lipopolysaccharide administration in mice* by JESSICA MURPHY of the Department of Biological Sciences
33. *Hurricane Preparedness and Planning in Coastal Public School Districts* by JESSICA VAN METER of the Department of Geography
34. *Synthesis and Characterization of Antioxidant Coated Gold Nanoparticles* by EILEEN ALEXANDER of the Department of Chemistry
35. *Advantages of Automated Method for Mapping Landforms* by DR. KAKOLI SAHA, 2010 Department of Geography Graduate

Poster Presentations: 2nd Floor KIVA

22. *Avalanche Fatalities in the Western United States: A Comparison of Three Databases, and the Creation of a Pooled Database* by JEREMY SPENCER of the Department of Geography
23. *Clostridium difficile and Toxin Recovery from Feces Preserved with ETM* by MICHAEL SHILLING of the Department of Biological Sciences
24. *Modelling Smectic Layers in Confined Domains* by MYKHAILO PEVNYI of the Liquid Crystals Institute
25. *Abbeys and Prisons: Shakespearean Shadows in Jane Austen's Northanger Abbey* by RANDI PAHLAU of the Department of English
26. *Transcriptional Regulation of VEGF by WT1 and AR in prostate cancer* by KURTIS EISERMANN of the School of Biomedical Sciences
27. *Interaction of CDC25B Phosphatase with 14-3-3 Proteins in Ovaries and Oocytes of Adult Mouse* by SANTANU DE of the Department of Biological Sciences
28. *The Use of Spark-Based Nonthermal Plasma for Sterilization of In Vitro-Constructed Biofilms* by JAMES FERRELL of the Department of Biological Sciences

Undergraduate Program Participants

Alicia Durewicz	Department of Biological Sciences
Eileen Alexander	Department of Chemistry
Jessica Van Meter	Department of Geography
Matthew C. Hudnall	Department of Anthropology

Master's Program Participants

Adam Ladd	School of Art
Alex Colucci	Department of Geography
Andrew Carnes	School of Health Sciences
Anne Dudley	School of Journalism & Mass Communication
Ashlie Louie Sochor	School of Art
Bryce Hruska	Department of Psychology
Cathleen Pyrek	Department of Anthropology
Curtis Eaton Jr.	Foundations, Leadership & Administration
Hannah Madson	Department of Biological Sciences
Inoka H. Widanagamage	Department of Geology
Jennifer Burrell	Department of Geography
Jessica Heffner	Department of English
Julie Gouin	Department of Geology
Katharine Clair	Foundations, Leadership & Administration
Kathryn E. Smith	Department of Psychology
Kathryn J. Wells	Department of Geology
Kelly Barriball	Department of Biological Sciences
Shilpi Tiwari	Foundations, Leadership & Administration
Stephanie Horvath	School of Health Sciences
Tom Kresch	Foundations, Leadership & Administration

Ph.D. Program Participants

Adiël A. Klompmaker	Department of Geology
Allison J. Brager	Department of Biological Sciences
Cameron Lee	Department of Geography
Chandawimal Siriwardana	Department of Geology
Chul-Ho Kim	School of Health Sciences
Courtney L. Werner	Department of English
Cristina Robins	Department of Geology
Denise Jenison	Department of History
Dwight Meyer	Department of History
Edward Ryan	School of Health Sciences
Erika Briesacher	Department of History
Franklin B. Lebo	Department of Political Science
James C. Redfearn	Department of Biological Sciences
James Ferrell	Department of Biological Sciences
Jeremy Spencer	Department of Geography
Jessica Murphy	Department of Biological Sciences
Jonathan Vadnal	Department of Biological Sciences
Justin J. Montemarano	Department of Biological Sciences
Dr. Kakoli Saha	Department of Geography, 2010
Karen McGuire	School of Biomedical Sciences
Kelly Reidy	Department of Physics
Kurtis Eisermann	School of Biomedical Sciences
Lindsay Steiner	Department of English

Poster Presentations: 2nd Floor KIVA

15. *Paleoclimatic characteristics of late Pleistocene/Holocene carboates in the Arctic Ocean based on a PCA and element correlation study of downcore XRF data* by CHANDAWIMAL SIRIWARDANA of the Department of Geology
16. *Paleoclimatic and Minearological characterization of downcore VNIR, VIS, DSR, and XRF data from the Northwind Ridge area in the central Arctic Ocean* by CHANDAWIMAL SIRIWARDANA of the Department of Geology
17. *Argentina's Emergence into the Core Rugby Realm* by NICK WISE of the Department of Geography
18. *Immigrant terms and stolen identities: Unpacking new media's position in rhetoric and composition* by COURTNEY L. WERNER of the Department of English
19. *Improvement in Response Time of VA LCD by Polymer Stabilization* by SARAH HICKS of the Liquid Crystals Institute
20. *Cognitive reserve moderates the association between heart failure and cognitive impairment* by MICHAEL L. ALOSCO of the Department of Psychology
21. *The richest Cretaceous decapod locality in the world? - An update* by ADIËL A. KLOMPMAKER of the Department of Geology

Poster Presentations: 2nd Floor KIVA

8. *LGBT Students and Leadership* by SHILPI TIWARI of Foundations, Leadership, and Administration (FLA)
9. *Water Table Variability on The Pitted Karst Plain, Yucatán, Mexico* by JENNIFER BURRELL of the Department of Geography
10. *Identity and Place Construction through Media: How Canadian Sporting Media Creates Popular Notions of North American and European Ice Hockey Styles and Players* by ALEX COLUCCI of the Department of Geography
11. *Fluctuation Modes of a Bent-Core Nematic Liquid Crystal* by MADHABI MAJUMDAR of the Department of Physics
12. *The histone deacetylase inhibitor Trichostatin A and L-Methionine induce epigenetic changes in the adult CNS which may be underlying factors in the progression of neurodegenerative disease* by JONATHAN VADNAL of the Department of Biological Sciences
13. *Articulating Argument in Document Design* by LINDSAY STEINER of the Department of English
14. *The Reconstruction of Paleoclimate of Soledad Basin from Benthic Foraminiferal Assemblages Influenced by Changes in Productivity and Ventilation Since Early Holocene* by NIVEDITA MEHROTRA of the School of Geology

Ph.D. Program Participants

Lisa Regula Meyer	Department of Biological Sciences
Madhabi Majumdar	Department of Physics
Marie A. Yeh	Department of Marketing
Mary Schramm	Department of Marketing
Megan Hendrickson	School of Biomedical Sciences
Michael A. Sulak	School of Biomedical Sciences
Michael L. Alosco	Department of Psychology
Michael Shilling	Department of Biological Sciences
Molly Taggart	School of Communication Studies
Mykhailo Pevnyi	Liquid Crystals Institute
Nick Wise	Department of Geography
Nilam Sinha	Department of Biological Sciences
Nivedita Mehrotra	Department of Geology
Qunxing Ding	Department of Biological Sciences
Randi Pahlau	Department of English
Santanu De	Department of Biological Sciences
Sarah Hicks	Liquid Crystals Institute
Sara Houston	Department of Biological Sciences
Sarah Zabic	Department of History
Shu Hui Lin	Teaching, Learning & Curriculum
Sinu Paul	Department of Biological Sciences
Stephan Woods	Department of Chemistry
Steve Fiester	Department of Biological Sciences
Suchismita Ghosh	Department of Biological Sciences

Oral Presentations: Room 313

Session I

Chairperson: Deb Lamm

9:00AM: Session Set up

9:15AM

Hox Gene Functions and Diversity within the Primate Order by MATTHEW C. HUDNALL, Anthropology

Keywords: Hox, Primate, Evolution, Development

9:30AM

Mating System Comparison of Lonicera Maackii (Amur Honeysuckle) Plants in the Understory and along the Edges of a Columbus, Ohio Woodlot by KELLY BARRIBALL, Biological Sciences.

Keywords: Mating System, Local Habitat Variation, Outcrossing Rate, Invasive Plant

9:45AM

The Effectiveness of 90KSU by TOM KRESCH, CURTIS EATON JR., ANNE DUDLEY, Foundations, Leadership, & Administration; Journalism and Mass Communication

Keywords: 90KSU, Intercollegiate Athletics, Higher Education

Poster Presentations: 2nd Floor KIVA

1. ***Preliminary Characterization of the Highland-Vijayan Thrust Boundary Zone, Sri Lanka*** by INOKA HASANTHI WIDANAGAMAGE of the Department of Geology
2. ***Biogeography of Non-Marine Ostracodes from a Late-Glacial Beringian Lacustrine Record*** by KATHRYN J. WELLS of the Department of Geology
3. ***American Style Higher Education in Bulgaria*** by KATHARINE CLAIR of Foundations, Leadership, & Administration (FLA)
4. ***The Vaeakau-Taumako Navigational Toolkit: A Cognitive Construct for Navigation in the Pacific*** by CATHLEEN PYREK of the Department of Anthropology
5. ***Geophysical Characterization of the Porosity Distribution in the Clinton Formation, Ashtabula County, Ohio*** by JULE GOUIN of the Department of Geology
6. ***Psychometric Properties of the PTSD Alcohol Expectancy Questionnaire (P-AEQ) and a Test of the Self-Medication Hypothesis in an Undergraduate Population*** by BRYCE HRUSKA of the Department of Psychology
7. ***Elucidating the Pathway of Apatone® Induced DNase II Reactivation During Autoschizic Cell Death*** by KAREN MCGUIRE of the School of Biomedical Science

Oral Presentations: Room 315**Session III**

Chairperson: David Widner

11:00AM: Session Set-Up11:15AM

HIV-1 Evolution and Epitope Associations by SINU PAUL, Biological Sciences
Keywords: HIV-1, Evolution, Epitopes

11:30AM

Circadian Gene Modulation and Brain Sites of Action in Acamprostate Suppression of Alcohol Intake during Relapse by ALLISON J. BRAGER, Biological Sciences
Keywords: mPER2, Circadian, Mouse, Alcohol, Acamprostate

11:45AM

Squat lobsters from the Late Jurassic: 150 million years away from your dinner plate by CRISTINA ROBINS, Geology
Keywords: Paleontology, Fossils, Decapods, Galatheoids, Squat Lobsters

Oral Presentations: Room 313**Session II**

Chairperson: Deb Lamm

10:00AM: Session Set-Up10:15AM

The Effect of Peer Influence on Running Speed, Enjoyment, and Perceived Exertion in Intercollegiate Distance Runners by ANDREW CARNES, School of Health Sciences
Keywords: Distance Running, Peer Influence, Exercise Motivation, Enjoyment, Perceived Exertion, Physical Activity Behavior

10:30AM

Tropical Cuisine: Costa Rica by STEPHANIE HORVATH, School of Health Sciences
Keywords: Culinary Tours, Costa Rica, Nutrition

10:45AM

Effects of Non-Selective Mechanisms on Sex Ratio Variation in Lobelia Siphilitica by HANNAH MADSON, Biological Sciences
Keywords: Sex Ratio, Lobelia Siphilitica, Gynodioecy, Gene Flow, Genetic Drift

Oral Presentations: Room 313

Session III

Chairperson: Deb Lamm

11:00AM: Session Set-Up

11:15AM

Behind the Music: Titian's Venus and Musician Paintings with an Iconographic Study on Instruments in Allegorical Art by ASHLIE LOUI SOCHOR, School of Art.

Keywords: Gender Studies, Art, Renaissance

11:30AM

Bernini's Cornaro Chapel: Visualizing Mysticism in the Age of Reformation by ADAM LADD, School of Art

Keywords: Bernini, Rome, Counter-Reformation

11:45AM

Purging Disorder: An Exploratory Investigation of Phenomenology, Psychological Correlates, and Distinctiveness as a Diagnostic Category by KATHRYN E. SMITH, Psychology

Keywords: Eating Disorders, Purging Disorder, Body Image, Dieting, Women

Oral Presentations: Room 315

Session II

Chairperson: David Widner

10:00AM: Session Set-Up

10:15AM

Utilization of Organic vs. Inorganic Forms of Nitrogen by Bacteria Isolated from Streams with varying Nitrate Concentration by SUCHISMITA GHOSH, Biological Sciences

Keywords: Heterotrophic Bacteria, Organic and Inorganic Nitrogen, Streams, Nitrogen Utilization

10:30AM

The Impact of Typha Angustifolia and Phragmites Australis Invasions in Wetlands on Behavior of Larval and Adult Rana Clamitans BY LISA REGULA MEYER, Biological Sciences

Keywords: Invasive Plants, Amphibians, Behavior, Wetlands

10:45AM

Indirect Cattail Eradication Effects on Decomposition in a Seasonally Dry Tropical Wetland by JUSTIN J. MONTEMARANO, Biological Sciences

Keywords: Ecology, Freshwater, Carbon, Macrophytes, Wetland

Oral Presentations: Room 315

Session I

Chairperson: David Widner

9:00AM- Session Set-Up

9:15AM

Elastic Constants and Orientational Viscosities of a Bent-Core Nematic Liquid Crystal by MADHABI MAJUMDAR, Physics.

Keywords: Elastic Constant, Viscosity, Dynamic Light Scattering, Freedericksz Transition, Bent-core Nematic, Clusters.

9:30AM

Nature of Fermi Systems near $l=0$ Pomeranchuk Instability: A Tractable Crossing Symmetric Equation Approach by KELLY REIDY, Physics

Keywords: Condensed Matter Physics, Correlated Electrons

9:45AM

Caffeine Timing and Cycling Performance by EDWARD RYAN, School of Health Sciences.

Keywords: Caffeine, Cycling

Oral Presentations: Room 314

Session I

Chairperson: Amanda Mullet

9:00AM

Case Study Research Techniques: Obtaining Access to Japan's National Personnel Authority (NPA) and the Mike Mansfield Fellowship Program by FRANKLIN B. LEBO, Political Science. Keywords: Case Study, Elite, Japan, National Personnel Authority (NPA); Mike Mansfield Fellowship Program (MFP)

9:15AM

Value Relevance of Innovation in the Pharmaceutical Industry by MARY SCHRAMM, Marketing

Keywords: Value Relevance, Innovation, Research & development, New Products, Pharmaceuticals

9:30AM

Stereotype Processing's Effect on the Impact of the Myth/Fact Message Format: The Role of Personal Relevance by MARIE A. YEH, Marketing

Keywords: Attitudes, Stereotypes, Automaticity, Perceived Learning, Mental Illness

9:45AM

Forging Connections between Civil Rights at home and the Cuban Revolution: Robert F. Williams in Castro's Cuba by DWIGHT MEYER, History

Keywords: Robert F. Williams, Cuban Revolution, Civil Rights

Oral Presentations: Room 314

Session II

Chairperson: Amanda Mullet

10:00AM: Session Set-Up

10:15AM

Young Children's Social Symbolic Play with Language Development by SHU HUI LIN, Teaching, Learning, & Curriculum Studies (TLC)
Keywords: Symbolic Play, Second Language Acquisition

10:30AM

Notgeld and National Identity: The Role of Emergency Money in Post-WWI Germany by ERIKA BRIESACHER, History
Keywords: Weimar Germany, Material Culture, Emergency Money, Collecting, Culture

10:45AM

Which Way is Left?: The "Red Choir" in Action and the Symbolism of the Belgrade Student Protest, June 1968 by SARAH ZABIC, History
Keywords: History, Student Protest, 1968, Yugoslavia, Communism

Oral Presentations: Room 314

Session III

Chairperson: Amanda Mullet

11:00AM: Session Set-Up

11:15AM

Associating Asthma Admissions to Synoptic Weather Types in New York State by CAMERON LEE, Geography
Keywords: Applied Climatology, Synoptic Methods, SSC, Weather Types, Asthma, Hospital Admissions, Morbidity

11:30AM

"In Accordance with the Best Traditions of American Democracy": The Institute of Arab Amercaisn Affairs and Palestine Question by DENISE JENISON, History
Keywords: Arab-Americans, Palestine

11:45AM

Friendship, Love, and Sexual Partners: Motives for Creating Cyber Relationships by MOLLY TAGGART, School of Communication Studies
Keywords: Friendship, Love, Sexual Partners, Interpersonal Communication, Motives, Cyber Relationships, Online/Internet Dating, Online Dating Websites