

Sixth Annual



STUDENT
SCHOLARS
SYMPOSIUM

April 13, 2017



From the Provost, Lipscomb University

A university can be defined in many ways. Certainly, research is a vital component in any measure of a university's standing. For that reason Lipscomb is proud to have been designated recently by the Carnegie Foundation as a doctoral level institution (R3). This classification places Lipscomb among some of the premier colleges and universities in America and is based upon the amount of research done by students at the various institutions. The Student Scholars Symposium reflects the quality, creativity, and range of research produced by students at Lipscomb. I am most proud of the fact that the Student Scholars Symposium is now not only a tradition at Lipscomb but a growing one. This can be seen by looking over the current program. The papers presented increase both in number and quality each year, as does the range of the topics and ideas discussed. I am also delighted to see the diversity of talent and voices reflected in the growing number of presentations in the creative arts. This speaks to the vitality of our academic programming. I appreciate the work of the faculty committee and the leadership of Dr. Florah Mhlanga in putting together such a vibrant and inviting program.

Dr. Craig Bledsoe

Opening Session: *Allen Arena*

Chair: *Dr. Mike Williams, Professor of Bible*

7:30 - 8:30 a.m.

Registration and Coffee

8:30 - 8:45 a.m.

Welcome

Dr. Norma Burgess, Dean of the College of Liberal Arts & Sciences

8:45 - 9 a.m.

Opening Remarks

Dr. Craig Bledsoe, Provost

9:10-10:55 a.m. • Concurrent Sessions Undergraduate Students Presentations

Paper Presentations IA: *Ezell 301*

Chair: *Dr. Phillip Camp, Professor of Bible*

9:10 a.m.

Sex and the City and the Corinthian Church: A Look at 1 Corinthians 6:12-20

Lauren Brewer and Mike Williams, Bible

9:25 a.m.

Community and Unity at the Table: A Study of 1 Corinthians 11:17-34

Lauren Anderson and Mike Williams, Bible

9:40 a.m.

Attitudes Towards Refugees in France versus United States

Victoria Stephens and Shanna Ray, Psychology

9:55 a.m.

Spiritual Warfare: What's My Role?

Hunter Maerz and George Goldman, Bible

10:10 a.m.

Theology's Autonomy: The Importance of Free Will to Faith in Charles Williams' Descent into Hell

Michael McDermott and Jan Harris, English and Modern Languages

10:25 a.m.

How Story Can Change the Way We Live and Heal

Anna Johnson and Chris Gonzalez, Psychology

Paper Presentations IB: Ezell 241

Chair: *Dr. Matt Hearn, Professor of English*

- 9:10 a.m. **In the Time of the Butterflies and the Importance of Female Representation in Latin America**
Caitlin Greer and Jan Harris, English and Modern Languages
- 9:25 a.m. **An Exploration of Truman Capote's Narrative Integrity in In Cold Blood**
Cheyenne Gavin and Jan Harris, English and Modern Languages
- 9:40 a.m. **The Gold Plated Society in The Age of Innocence**
Hannah Grace Holladay and Jan Harris, English and Modern Languages
- 9:55 a.m. **The Violent Bear It Away: Flannery O'Connor's Hateful God?**
Jeremy Williams and Jan Harris, English and Modern Languages
- 10:10 a.m. **"I Haven't Any People": Looking at Community and Identity Within Nella Larsen's Quicksand**
Stefan McClure and Sonya Green, English and Modern Languages
- 10:25 a.m. **The Fault in Augustus Waters**
Kira Dunton and Jan Harris, English and Modern Languages

Paper Presentations IC: Ezell 147

Chair: *Dr. Marc Schwerdt, Assistant Professor of Political Science*

- 9:10 a.m. **Ballet in Battle: How the Franco-Prussian War Influenced the Lives of Parisian Dancers and other Women**
Shelby Hiter and Howard Miller, History, Politics and Philosophy
- 9:25 a.m. **Ambassadors of the Welsh Tongue: The Tale of Prince Madog Ab Gwynedd**
Caleb Reagor and Alan Bradshaw, Physics
- 9:40 a.m. **Revisiting Pascal's Wager: Does the Wager Have a Role in Christian Apologetics?**
Kayla Ford and Caleb Clanton, Philosophy
- 9:55 a.m. **Could there be a Brazilian-Mexican War?**
Stephen Barba and Susan Haynes, Political Science
- 10:10 a.m. **Burkes Ireland: The Catholic Question**
Caleb Reagor and Alan Bradshaw, Physics

- 10:25 a.m. **The Role of Monasticism in Connecting the Roman Collegia with the Medieval Guild**
Nathaniel Hipsley and Howard Miller, History, Politics, and Philosophy

Paper Presentations ID: Ward Hall

Chair: *Dr. Mary Sledge, Professor of Biology*

- 9:10 a.m. **JAK2 May be the Pathway Responsible for Immunoproteasome Activation in the Presence of TNF- α**
Mason Forchetti and Amanda Williams, Biology
- 9:25 a.m. **Utilizing a Bi-Directional Transporter Assay to Identify Pgp Substrates**
Haley Scarbrough and Scott Akers, Pharmaceutical Sciences
- 9:40 a.m. **Preoperative Indicators of Index Hospitalization Death in LVAD Patients**
Morghan Jameson and Florah Mhlanga, Biology
- 9:55 a.m. **Just How Time Sensitive are Genes Related to Neurological Development in Early Zebrafish Growth?**
Aaron Anderson and Bonny Millimaki, Biology
- 10:10 a.m. **Sunitinib Metabolism and Implications for Drug-Induced Liver Damage**
Gracia Amaya and Klarissa Jackson, Pharmaceutical Sciences
- 10:25 a.m. **Identification of Candidate Therapies to Enhance Regulatory T Cells to Reverse Type I Diabetes**
Lauren Brewer and Beth Conway, Biology

Paper Presentations IE: Ezell 363

Chair: *Dr. Ted Parks, Professor of Spanish*

- 9:10 a.m. **Connecting Through Effective Communication**
Julie Sarvak and Jan Harris, English and Modern Languages
- 9:25 a.m. **Korean Language and South Korean Social Dynamics**
Lila Banach and Jan Harris, English and Modern Languages
- 9:40 a.m. **Looking for Meeps: How Dictionaries Reflect Cultural Trends in Language from Johnson to the Urban Dictionary**
Ricky Finch and Jan Harris, English and Modern Languages
- 9:55 a.m. **Education's Impact on Society and Dialects**
Amy Hall and Jan Harris, English and Modern Languages

10:10 a.m. **The Trail Narrative: How Narrative Built the Appalachian Trail**
William Mathis and Jan Harris, English and Modern Languages

10:25 a.m. **RAFT Writing**
McCarley Thomas and Stacia Watkins, English and Modern Languages

10:55 a.m. - 12:20 p.m.
Lunch and Keynote: Allen Arena

Chair: *Dr. Florah N Mhlanga, Associate Dean of the College of Liberal Arts and Sciences*

Keynote Presentation: What Did St. Augustine, Galileo and Einstein Have to Say About Faith vs. Science?

Dr. Sylvester James (Jim) Gates Jr. is a Distinguished University Professor, University System of Maryland Regents Professor and John S. Toll Professor of Physics and Director of the Center for String and Particle Theory at the University of Maryland at College Parks

Introduction of Speaker: *Dr. Alan Bradshaw, Chair and Professor of Physics*

12:30 – 1:50 p.m.
Poster Session: Allen Arena

Undergraduate Students Poster Presentations

Group I

Chairperson: *Dr. Jon Lowrance, Professor of Biology*

1. **Polycomb Group Protein EZH2 Interacts With the Promoter Region of Sodium Channel Gene SCN1a**
Bria Harris and Florah Mhlanga, Biology

2. **Immunoproteasome Expression Levels in Response to Interferon-gamma in HEPG2 Cells**
Lindsay Davison and Amanda Williams, Biology
3. **The Pro-Angiogenic Mechanism, Migration-Neutral Effect of the Di-Peptide LQ**
Jonathan Attalla and Beth Conway, Biology
4. **Analysis of Expression of RhoD, a GTPase, in MDA-MB-321 and MCF7 Breast Cancer Cells**
Lauren May and Beth Conway, Biology
5. **The effect of Top2 β inhibition with Hu331 on expression of dcc in *Danio rerio***
Melanie Couch, Amanda Williams, Dr. Bonny Millimaki

Group II

Chair: *Amanda Williams, Instructor of Biology*

6. **Effects of TGFR1 in MCF7 and MDA231 Cell Lines**
Gracia Amaya, Morghan Jameson and Beth Conway, Biology
7. **The Effects of Tobacco Leaves (Sahdah) on the Embryonic Development of Zebrafish**
Denise Torres, Dim Kim, Tina Bashar and Bonny Millimaki, Biology
8. **Essential or Harmful?**
Graysen McConnell, Krishna Patel and Bonny Millimaki, Biology
9. **Comparing Populations of Neotropical Woodland Migrants and Resident Birds at Edwin Warner Park (Nashville) to State and Regional Trends**
Emily Phipps and John Lewis, Biology
10. **ENSO's Impact on Neotropical Songbird Migration**
Reese Wray and John Lewis, Biology

Group III

Chair: *Dr. Bonny Millimaki, Associate Professor of Biology*

11. **Silicone Acrylate Coatings as a Model System for Predictive Surface Free Energy Analyses**
Rachel Brooks, Anna McCain and Brian Cavitt, Chemistry and Biochemistry
12. **Structural Analysis of Gluten Exorphin B5 by NMR and Computational Methods**
Stephen Hemmerly and Kent Clinger, Chemistry and Biochemistry

13. **Antagonistic Effects of Green Tea on Cancer Chemotherapy: Computational and Experimental Investigation of Epigallocatechin-3-gallate/Sunitinib Interactions**

Kelsey Jones, Kevin Flatt, Matt Vergne and Austin Privett, Chemistry and Biochemistry

14. **Progress on the Structural Determination of 1,1-DIHALO-2,2,3,3-Tetramethylcyclopropanes**

Andrew Sweeton, Margaret Veers, Christina Thurman and Kent Clinger, Chemistry and Biochemistry

15. **Ion Contributions to the Gulf of Mexico Dead Zone from Pensacola Beach Tributaries**

Tricia Lynch and Linda Phipps, Chemistry and Biochemistry

16. **Quantitation of Drugs in Rivers and Lakes in Middle Tennessee**

Andrew Sweeton, Christine Nguyen, Yuchen Han, Wenting Wei and Matt Vergne, Pharmaceutical Sciences

17. **Quantitation of Anthocyanins in Cranberry Juice**

Mallory Burns and Matt Vergne, Pharmaceutical Sciences

Group IV:

Chair: *Dr. John Lewis, Associate Professor of Biology*

18. **Concerns and the Media: How Media Portrayal Impacts Public Understanding of Environmental Issues**

Anna McClure and Emily Stutzman, Institute for Sustainable Practice

19. **Addressing Potential Policies to Impact Consumer Decisions at the Preacquisition Stage in Order to Reduce Food Waste in the United States**

Courtney Christl and Emily Stutzman, Institute for Sustainable Practice

20. **The Connections between Sound and Our Environment**

Daniel Collier, and Emily Stutzman, Institute for Sustainable Practice

21. **Ecotourism Improving America**

Kara Thomas and Emily Stutzman, Institute for Sustainable Practice

22. **Green Construction Materials**

Spencer Sanderlin and Emily Stutzman, Institute for Sustainable Practice

23. **Social and Economic Barriers for the Adoption of Solar Renewable Energies for Residential Purposes**

Daniel Cardenas and Emily Stutzman, Institute for Sustainable Practice

Group V

Chair: *Dr. Shanna Ray, Professor of Psychology*

24. **Maybe We Can End World Hunger**

Callista Pascarella and Emily Stutzman, Institute for Sustainable Practices

25. **How do Western Countries' Economic Investment in African Countries Undermine the Environmental and Social Sustainability of African Citizens?**

Ellory Overcast and Emily Stutzman, Institute for Sustainable Practices

26. **Sustainability and Education: Forward from Today**

Frank Carter and Emily Stutzman Institute for Sustainable Practices

27. **The Benefits of Waste Water Treatment for Renewable Energy**

Kyle Smith and Emily Stutzman, Institute for Sustainable Practices

28. **The Effect of Salinity on Vegetation in Temperate Wetlands**

Madeleine Zahn and Emily Stutzman, Institute for Sustainable Practice

Group VI

Chair: *Dr. Brandon Banes, Assistant Professor of Mathematics*

29. **Divided America**

Joel Clinger and Gary Hall, Mathematics

30. **Education Trends of Top CEOs**

Mary Perry, Madeline Enderle and Gary Hall, Mathematics

31. **Monte Carlo Tree Search Algorithm for Card Game Analysis**

Matthew Naveiras and Gary Hall, Mathematics

32. **An Evaluation of the Lipscomb Capstone Assessment**

William Sisson and Gary Hall, Mathematics

33. **Alternative Feeding**

Ayotunde and Gary Hall, Mathematics

34. **World Series Statistical Analysis**

Sarah Lavoie and Gary Hall, Mathematics

Group VII

Chair: *Dr. Rolettha Pillow, Assistant Professor of Nursing*

35. **Are College Students Taking Illegal Stimulants More Likely to Have Improved Academic Performance Compared to the Academic Performance of College Students Who are not Taking Illegal Stimulants?**
Betsy Scheibe, Matt Mulch, Keyonna Wilder, Michelle Garcia, Ellen Holland and Jennifer Weber, Nursing
36. **The Effects of Added Sugar on the Incidence of Adolescent Obesity**
Lauren Haley Haggard, Ashlee Taylor, Ashley Mannel, Rachel Caldwell, Jessica Polk and Jennifer Weber, Nursing
37. **How Does the Availability of Nutritional Education of School-aged Children in Impoverished Communities Affect the Predisposition of Chronic Illness as an Adult Compared to the Nutritional Options in School-aged Children in other Socioeconomic Communities?**
Elizabeth Cross, Audrey Davis, Ayesha Harris, Katie Horton, Aubrey Moss, Kayla Roberts and Jennifer Weber, Nursing
38. **Regarding Nonpharmacological Treatments for Alzheimer's Dementia: Does Music Therapy Reduce Symptoms More Effectively than other Nonpharmacological Treatment Options?**
Raj Patel, Sheona Gozmao, Adrienne Corr, Allison Meyers, Rabab Jambi, Rana Filfilan and Jennifer Weber, Nursing
39. **Relationship Between Various Aspects of Staff Hygiene and Hospital-Acquired Infection**
Caroline Sutton, Jenny Phelan, Graylin Brock, Josh Gutierrez, Kaleigh Ligon and Jennifer Weber, Nursing
40. **Improving Response Rates for Satisfaction Surveys Administered to Physicians**
Kelly Harper, Emily Gittings, Maxim Turchan, David Charles and Kate Watkins, Professional Studies

Group VIII

Chair: *Dr. Ruth Henry, Chair and Professor of Kinesiology*

41. **Do Asthmatic Children with Mothers Who Consumed Tobacco During Pregnancy have an Increased Risk at Developing Asthma Versus Asthmatic Children Whose Mothers Did not Consume Tobacco During Pregnancy?**
Emily Trovillion, Jenna Harper, Taylor Mitchell, Susie Clark, Kennedy Potts and Jennifer Weber, Nursing

42. **In Preterm Infants, What is the Effect of Skin-to-Skin Care on Their Physiological and Social Aspects in Comparison to Conventional Neonatal Care within the Hospital Setting in the First Year of Life?**
Claire Schmittou, Emily Claiborne, Christopher Hale, Hannah Weller, Amy Potts and Jennifer Weber, Nursing
43. **Are Pregnant Women Who Consistently Sleep Five Hours or Less at Risk for Greater Complications During Pregnancy Compared with Pregnant Women who Sleep Eight or More Hours During their Duration of Pregnancy?**
Emma Paul, Hannah Grimes, Karina Beltran, Jena Starkweather, Lauren Kubat and Jennifer Weber, Nursing
44. **Malnutrition in Today's Hospital Patient**
Leah Davenport and Autumn Marshall, Nutrition and Kinesiology
45. **Comparison of Novel Actigraphy Endpoints to Polysomnography Measurements of Sleep Disturbance in Children**
Megan L. Alder, Beth A. Malow and Christin Shatzer, SALT

Group IX

Chair: *Dr. Hazel Arthur, Chair and Professor of Social Work*

46. **Diversionary War Theory and the Iraq War**
Rebecca Golden and Susan Haynes, Political Science
47. **Challenging Unjust Censorship: An Evidence-based Advocacy Process**
Daniel Schwanke and Cayce Watson, Social Work
48. **Planting Seeds for Environmental Literacy at Lipscomb Academy Elementary School**
Ginger Reasonover and Kate Watkins, Professional Studies
49. **Pansexual Pantheon: Marginalization and Empowerment in the Wicked and the Divine**
Michael McDermott and Jan Harris, English and Modern Languages
50. **The Real Face of Homelessness in Nashville**
Hannah Vaughn and Paul Prill, Honors College

Group X

Chair: *Dr. Justin Myrick, Dean of the Raymond B. Jones College of Engineering*

51. **Pegram, TN, Flood Remediation Project**
David Lowery, Nathan Curtis, Abby Queen, Cody Glenn and Chris Gwaltney, Civil Engineering

52. **The Rio Grande Bridge**
John Ray, Mariah Vinson and Todd Lynn, Civil Engineering
53. **Little Hands, Big Hearts Adaptive Playground**
Benny Richardson, Logan Shade, Jacqui Payne, Muhammad Musharaf and Joseph Tipton, Mechanical Engineering
54. **Design and Analysis of a Cooling System for the Barkley Dam Cable Tunnel**
Matthew Martinez, Coleman Gaines, Hunter Printz, Riley Putman, Troy Barr and Kirsten Dodson, Mechanical Engineering
55. **Revolving Stage: Low-Profile Drive System and User Interface**
Elizabeth Woytach, JJ Shankles, Ryan Luttrell, Graham Sears, Ryan Trebendis, Hayden Sears and John Pettit, Electrical Engineering
56. **The Effects of the Whirling Phenomenon on Mechanical Systems**
Daniel Steines, William Sisson, Ranine Haidous, Bridgette Steiner and Stephanie Weeden- Wright, Electrical Engineering
57. **IEEE Robotics**
Kristina Johnson, Brandon Smith, Nate Hamilton, Will Knight, Rashmeet Ladhar, Derek Peterson and Gregory Nordstrom, Electrical and Computer Engineering

Graduate Students Poster Presentations: Allen Arena

Group XI

Chair: *Dr. Joe Deweese, Associate Professor of Pharmaceutical Sciences*

58. **Implementing Transitions of Care in Rural Middle Tennessee**
James Barker and Ben Gross, Pharmacy Practice
59. **Retrospective Review of a Pharmacist Managed Diabetes Clinic on Hemoglobin a1c**
Cindy Kaing and Ben Gross, Pharmacy Practice
60. **The Incidence of High-Risk Patient Readmission at a Regional Medical Center Following Implementation of a Transitions of Care Program by a Community Pharmacy**
Jessica Lampley and Ben Gross, Pharmacy Practice
61. **Sleep Deprivation, Attention and Quality of Life in Veterans**
Alena Gizdic and Dale Alden, Psychology

62. **Managing Clinically Significant Interactions in the Transition from a Locally Developed to Commercially Developed Drug-Drug Interaction Database**
Toni Darnell, William Hedges, Bonnie Lewis, Ethan Parsons and Beth Breeden, Pharmacy Practice

Group XII

Chair: *Dr. Klarrisa Jackson, Assistant Professor of Pharmaceutical Sciences*

63. **Effect of EDNRB3 Protein Receptor Activity on Downstream Signaling Pathways Using MCF7 Cell Line**
Ethan Loveless, Hannah Mitchell and Beth Conway, Biology
64. **The Role of Topoisomerase 2 β in Neural Development in *Danio rerio***
Mary Skrabut and Bonny Millimaki, Biology
65. **Effects of Heat and Eucalyptus on Zebrafish Development**
Stephanie Kendrick, Macy Cottrell, Sebastian Edwards and Bonny Millimaki, Biology
66. **Short-chain Fatty Acid Regulation of Toll-Like Receptor Mediated Inflammatory Pathways in Colorectal Epithelial Cells**
Jacob Holley, Jaclyn Corso and Jon Lowrance, Biology
67. **UV-C Irradiation on the Quality of Green Tea's LC-MS/MS Quantitation of Catechins**
Kevin Flatt and Matthew Vergne, Pharmaceutical Sciences
68. **The Relationship Between Muscle Thickness and Anaerobic Power**
David Bender, Amy Banaszek, Caitlyn Browning and Ruth Henry, Kinesiology
69. **Inventory Control Using K-Means Clustering and Polynomial Regression**
Hung Le, Urvish Bhagat, Michael Pigman and Todd Gary, Computing and Technology

Group XIII

Chair: *Dr. Ben Gross, Associate Professor of Pharmacy Practice*

70. **Developing a Model Framework to Assess the Budget Impact of Ocrevus (ocrelizumab) in Primary Progressive Multiple Sclerosis (PPMS) in a U.S. Medicare Population.**
Brett Stephenson, Ethan Parsons and Jeff Lee, Pharmacy Practice
71. **Cost-Effectiveness of Extended-Release Levodopa-Carbidopa Versus Controlled-Release Levodopa-Carbidopa in Patients With Advanced Parkinson's Disease**
Connor Whitfield and Jeff Lee, Pharmacy Practice

72. **Nomophobia and Sleep in Pharmacy Students: Is Problematic Mobile Phone Use Associated With Poor Quality Sleep?**
August Whipple and Kevin Clauson, Pharmacy Practice
73. **A Pharmacist-Led Effort to Leverage Digital Health to Screen for Sleep Disorders and Identify the Impact of Medications on Sleep**
Stacey English, Carl Stepnowsky, Adam Amdur, Jeff Lee, Kam Nola, Beth Breeden and Kevin Clauson, Pharmacy Practice
74. **Stigma Toward Antipsychotic Medications Among Healthcare Clinicians**
Tyler Casey and Lindsey Miller, Pharmacy Practice

2 – 5:00 p.m. Concurrent Sessions Undergraduate Students Presentations II

Paper Presentations IIA: Ezell 241

Chair: *Dr. Willie Steele, Professor of English*

- 2 p.m. **The Anglicization of Scottish Gaelic**
Sterling Bishir and Jan Harris, English and Modern Languages
- 2:15 p.m. **Framing Nelly as the Antagonist**
Layne Collier and Matt Hearn, English and Modern Languages
- 2:30 p.m. **Shakespeare in London**
Jenna Phipps and Jan Harris, English and Modern Languages
- 2:45 p.m. **Death's Fascination with Color in The Book Thief**
Kaylee Newland and Jan Harris, English and Modern Languages
- 3:00 p.m. **Lily Briscoe: The Space Between the Binary**
Morgan Beers and Jan Harris, English and Modern Languages
- 3:15 p.m. **The Psychology of the Other in Margaret Atwood's Lusus Naturae**
Michaela Rutledge and William Steele, English and Modern Languages

Paper Presentations IIB: Ezell 147

Chair: *Dr. Jimmy McCollum, Professor of Communication*

- 2 p.m. **Mizzouri Riots: To Cover or Not to Cover**
Rebecca Risley, Sarah Gibson, Communication and Journalism

- 2:15 p.m. **Journalism During the Pinochet Era, Chile**
Lauren Borders and Paul Prill, Communication and Journalism
- 2:30 p.m. **The Nuance of Language**
Hannah Vaughn and Danielle Walters, English and Modern Languages
- 2:45 p.m. **The Aesthetics of Oppression in Yawar Mallku**
Lisa Moser and Ted Parks, English and Modern Languages
- 3 p.m. **The Purpose of Suffering in Viktor Frankl's Man's Search for Meaning**
Peggy Miller and Jan Harris, English and Modern Languages
- 3:15 p.m. **Punk Rock in Music City**
Johnston Ellis and Jan Harris, English and Modern Languages

Paper Presentations IIC: Ezell 363

Chair: *Dr. Alpha Nyandoro, Associate Professor of Computing*

- 2 p.m. **The Rio Grande Bridge**
John Ray, Mariah Vinson & Todd Lynn, Civil Engineering Department
- 2:15 p.m. **Titanic Survival Analysis**
Charles Humphreys, Lauren Gardiner, Nayeli Anaya-Hernandez and Tim Wallace, Computing and Technology
- 2:30 p.m. **A System for Determining Persons of Interest through Communication Network Reconstruction**
Justin Draughon, Brian Woodward, Eddy Borera and Chris Simmons, Computing and Technology
- 2:45 p.m. **Engineering Public Policy in Nuclear Technology**
Jericho Locke, & Joseph Tipton, Mechanical Engineering
- 3 p.m. **Pegram, TN, Flood Remediation Project**
David Lowery, Nathan Curtis, Abby Queen, Cody Glenn and Chris Gwaltney, Civil Engineering

Graduate Paper Presentations I: Ezell 301

Chair: *Dr. Scott Akers, Professor and Chair of Pharmaceutical Sciences*

- 2 p.m. **Oxidized Products of Cannabidiol Inhibit Topoisomerase II α**
James Wilson II, Cole Fief, Klarissa Jackson, Susan Mercer and Joe Deweese, Pharmaceutical Sciences

- 2:15 p.m. **HU-331 and Oxidized Cannabidiol Stabilizes the Closed Clamp Conformation of Topoisomerase II**
Cole Fief & Joe Dewese, Pharmaceutical Science
- 2:30 p.m. **The Opportunities, Challenges and Impacts of the Internet of Things on Environmental Sustainability**
John Plunkett and Emily Stutzman, Institute for Sustainable Practice
- 2:45 p.m. **An In Vitro Characterization of Meperidine N-Demethylation by Cytochrome P450 Enzymes**
Jessica Murray and Klarissa Jackson, Pharmaceutical Science
- 3 p.m. **Targeting Topoisomerase II: Synthesis and Evaluation of Halogenated Podophyllotoxin and Etoposide Analogs**
Matthew Murphy and Susan Mercer, Pharmaceutical Sciences

3 – 4:45 p.m. Performances and Film

Performances I and Film: Collins Auditorium

Chair: *Dr. Sally Reid, Professor of Music Composition and Theory*

- 3 p.m. **The Other Side of the Sound**
Erin Turner and Sarah Gibson, Communication and Journalism
- 3:20 p.m. **Make A Move**
Rebecca Risley and Sarah Gibson, Communication and Journalism
- 3:40 p.m. **Hacer Discipulos**
Katie Bianchini, Kendra Weitz and Sarah Gibson, Communication and Journalism
- 4 p.m. **American Gospel Music in World War II**
Katharine DeVore and Donna King, Music
- 4:20 p.m. **The Preludes of Claude Debussy**
Jeriel Jorguenson and Jerome Reed, Music

Performances II: Ezell 241

Chair: *Dr. Carrie Abood, Associate Professor of Education*

- 3:30 p.m. **Observations**
Colleen Casner and Jan Harris, English and Modern Languages

- 3:40 p.m. **Other Loud Noises**
Hannah Fleming and Jan Harris, English and Modern Languages
- 3:50 p.m. **The Mango Trees**
Hannah Grace Holladay and Jan Harris, English and Modern Languages
- 4 p.m. **Slow Ascent**
Kira Dunton and Jan Harris, English and Modern Languages
- 4:10 p.m. **Unlovely People**
Mary Ashley Arendsee and Jan Harris, English and Modern Languages
- 4:20 p.m. **Terrestrial**
Philip Grimsley and Jan Harris, English and Modern Languages
- 4:30 p.m. **Charlie's Lament**
Ricky Finch and Jan Harris, English and Modern Languages
- 4:40 p.m. **Underneath**
Jeremy Williams and Jan Harris, English and Modern Languages

3:30 – 4:45 p.m. Concurrent Sessions

Graduate Paper Presentations IIA: Ezell 301

Chair: *Dr. Tim Wallace, Professor and Chair of Data Sciences*

- 3:30 p.m. **The Use of Ad Hoc Networks in Home Security**
Tyler Davis, Aron Mebrahtu, Creighton Brown, Chris Simmons, and Alfa Nyandoro, Computing and Technology
- 3:45 p.m. **The Effects of Whey and Pea Protein on Body Composition, Muscle Architecture, and Performance in CrossFit athletes**
Amy Banaszek, William Bender, William Vantrease, Autumn Marshall, Kent Johnson and Jeremy Townsend, Kinesiology
- 4 p.m. **A Data Science Strategy to Classify Cancerous Lesions in the Lung: Supporting the Nation's Cancer Moonshot Initiative**
Carl Lordo and Todd Gary, Computing and Technology

- 4:15 p.m. **3A Sacramental Reflection on Exodus 19-24 and the Formative Life of the Church.**
Colin Fagan and Phillip Camp, Hazelip School of Theology
- 4:30 p.m. **Immanuel Kant and Existence as a First-Order Predicate in the Ontological Argument**
Chet Duke and John Mark Hicks, Hazelip School of Theology

Graduate Paper Presentations IIB: Ezell 363

Chair: *Dr. Kent Gallaber, Chair and Professor of Biology*

- 3:30 p.m. **The Utilization of the COX2 Prostaglandin Synthesis Pathway for Novel Therapeutic Approaches to Endocrine and Chemotherapy Resistant Breast Cancer**
Katherine Ray and Beth Conway, Biology
- 3:45 p.m. **Highly Invasive Breast Cancer Cell Lines Show a Greater Sensitivity to MAPK Inhibitors by Decreasing Proliferation and Invasion**
Mehdi Chaib and Beth Conway, Biology
- 4 p.m. **The Effects of Deazaflavin Induced TDP2 Inhibition with Etoposide Treatment in MDA-MB-231 Cell Culture**
Sara Windham and Bonny Millimaki, Biology
- 4:15 p.m. **Chimeric Antigen Receptor T-Cell Therapy for Acute Lymphoblastic Leukemia**
Jennifer Ritchie and Jon Lowrance, Biology

5:15 - 6:00 p.m.
Reception and Awards: Allen Arena

Chair: *Dr. Jan Harris, Associate Professor of English*

Presentation of Awards and Closing Remarks

Dr. Craig Bledsoe, Provost

COLLEGE SPONSORED PRESENTATIONS

4 p.m.
Stowe Hall, 108 Swang Center

College of Pharmacy and Health Sciences Speaker

Planning for the Win when you are the Underdog
Mari-Etta Parrish, RD, CSSD, LDN, Healthlete, Nashville TN

7 p.m.
Stowe Hall, 108 Swang Center

College of Liberal Arts and Sciences Sponsored Public Lecture

Doors Open At 6:15 p.m.

The 1,358,954,496 Matrix Elements to Get From SUSY Diff Eq's to Pictures, Codes, Card Games, Music, Computers and Back Again

Dr. Sylvester James (Jim) Gates Jr. is a Distinguished University Professor, University System of Maryland Regents Professor and John S. Toll Professor of Physics and Director of the Center for String and Particle Theory at the University of Maryland at College Park

Acknowledgements

Financial Support provided by:

Office of the Provost • College of Liberal Arts and Sciences
College of Computing and Technology • College of Pharmacy and Health Sciences

Organizing Faculty and Staff

Dr. Florah Mhlanga (Chair) • Dr. Shanna Ray • Dr. Beth Conway • Dr. Carrie Abood
Dr. Jan Harris • Dr. Susan Mercer • Dr. Caleb Clanton • Dr. Mike Williams • Dr. Ed Borera
Amanda Williams • Dr. Austin Privett • Sarah Leidereiter-Flatt • Danna Perry

Faculty Mentors • Student Presenters
Symposium Sessions Chairs and Judges • Sodexo and Lipscomb Dining Services
Lipscomb University Entertainment and Technical Services
Lipscomb University Office of Event Management
Lipscomb University Communication and Marketing

