



*Honors Day Symposium*

**JAMES H. THOMASON LIBRARY  
EDMUNDS HALL  
HARPER CENTER  
HARRINGTON-PEACHTREE**

**APRIL 20, 2017**



PRESBYTERIAN COLLEGE  
IS AN INSTITUTIONAL MEMBER OF THE  
COUNCIL ON UNDERGRADUATE RESEARCH  
*Learning Through Research*

## Honors Day Symposium

8:45-9:00 a.m.

Library Reading Room

Welcome  
Robert E. Staton, J.D., D.P.S.  
President, Presbyterian College

9:00-10:00 a.m.

## POSTERS

### Library Reading Room

Catherine R. Christaldi, Rebecca L. Howell, & Taylor K. Servais	“Induction of P-glycoprotein in Caco-2 cells and Chemotherapy Resistance”
Kassandra L. Glover	“STEM Majors Have a More Positive Opinion of Modern Curriculum and Pedagogy in Introductory Biology”
Allison L. Jenkins	“The Analysis of SEM and Light Micrographs to Determine the Paleodiet of Hypertragulids of the White River Formation”
Haleigh E. Mauldin	“Master Chronology of <i>Quercus Alba</i> (White Oak)”
Caroline A. Moore & Claire E. Doolittle	“A Community Partnership: The Little Free Library in Lydia Mill”
Austin J. Priaulx	“The Morphometric Analysis of Four Species of Hypertragulids Using PCA Statistics”
Mikayla G. Register	“Surgical Reconstruction of the Knee”
Andrew P. Rhodes	“Remote Myoelectrically Controlled Robotic Hand”
Kathleen G. Snead	“Examining Plant Biodiversity along Riparian Zones at Bush River”
Adrienne M. Wright	“Examination of Cannabinoid-Positive Urine Samples for the Presence of Pesticides”

## *Honors Day Symposium*

9:00-10:00 a.m.

### **HP 214**

#### **Crusading: The Baltic and Byzantine Experiences\***

**Presider: Richard R. Heiser, Ph.D.**

Carl A. Burnett

“The Northern Crusades: Glorified Border Wars or Actual Crusades?”

Jacob McGee

“Crusaders and Eastern Romans”

10:05-11:05 a.m.

### **Library 39**

#### **Improving Plants and Animals\***

**Presider: James T. Wetzel, Ph.D.**

Sarah E. Jennings

“An Examination of the Effects of Abiotic Stress on the Phyllosphere Microbiome Composition of Maize Seedlings”

Kristen R. Peagler

“Ecotoxicological Impact of the Ionophore Narasin on the Gonadal Profile of the Southern Leopard Frog”

### **Library 54**

#### **Economic and Political Change\***

**Presider: Karen W. Buckland, D.M.A.**

Robert C. Inclan

“The Cuban Stationary Bandit: Why Raúl Castro Cannot Afford to Restrict Economic Freedom”

Joshua C. McGill

“The Lion versus the Dragon: How Beijing’s Infringement of Hong Kong’s Democracy and Underlying Economic and Cultural Tensions Caused the Umbrella Movement”

### **Library 55**

#### **Solvents and Relaxation Rates\***

**Presider: Latha A. Gearheart, Ph.D.**

Musashi J. Briem

“Electrochemical Applications of Deep Eutectic Solvents”

Lucas A. Pressley  
Darcy N. Nirenstein

“The Effect of Noble Metal Nanoparticles on the Relaxation Rate of Supercoiled DNA”

### **Library 214**

#### **Connections and Conflict**

**Presider: Robert A. Bryant, Ph.D.**

Destiny A. Willis &  
Ashlyn Bordelon

“The Effects of Social Conflict on Anxiety and Avoidance”

Destiny A. Willis

“Retention of Conflict-Induced Avoidance Behavior in Male Syrian Hamsters”

William G. Hobson

“Playing with (and Analyzing) Postmodern Narrative: Novel Intertextuality”

Daryl J. Wilson

“Interracial Relationships”

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\*30 minute presentations

## Honors Day Symposium

10:05-11:05 a.m.

### HP 214

#### **Crusaders from the British Isles\*** **Presider: Richard R. Heiser, Ph.D.**

- Tanner L. Price      “King Richard I: A Good Crusade Leader?”  
Jon Walker II      “The Kilted Crusaders”

11:10 a.m.-12:10 p.m.

### Library 39

#### **Improving Health\*** **Presider: Sharon E. Knight, Ph.D.**

- Ryan W. Brown      “What Really Guides Hospital Transfer Decisions? Probabilistic Multiple Regression Model to Locate Trends Between Hospital Stays and Transfers and Socioeconomic Factors, Hospital Characteristics, and Comorbidity Metrics”  
Anessa M. Pettis      “Lo Práctico y lo Ético de la Eliminación de los Mosquitos en Sudamérica: Una Investigación Científica y unas Reflexiones Poéticas”

### Library 54

#### **Analyzing Social Issues\*** **Presider: G. Terry Barr, Ph.D.**

- Sarah R. Fossett & Geena E. Griffith      “Campus Climate Research”  
Olivia J. Aldridge      “*The Fawn Years*: Essays for a Place”

### Library 55

#### **Understanding Structures\*** **Presider: Chad L. Rodekoher, Ph.D.**

- Hayden C. Caraway      “Yeast as a Model for Type II Diabetes: Examination of Terminal Ends of HXTs Through Circular Dichroism”  
Jonathan W. Turnley      “Stimulating Sn Whisker Growth with Etchants and Investigating Whisker Growth Mechanisms”

### HP 214

#### **Women and Children as Crusaders\*** **Presider: Richard R. Heiser, Ph.D.**

- Shamyra L. Jordan      “The Children’s Crusade of 1212: Aspiring Crusaders”  
Kimberly Rhodes      “Women and the Crusading Movement”

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\*30 minute presentations

## *Honors Day Symposium*

**12:10-1:10 p.m.**

**Lunch Break**

**1:15-2:15 p.m.**

### **Library 39**

#### **Breast Cancer Research\***

**Presider: Austin Y. Shull, Ph.D.**

Christopher H. Parnell      “Breast Cancer Stem Cells Demonstrate a Hypermethylated Phenotype within Gene Promoter Regions”

Brandon L. Stone      “Gene Body DNA Methylation is Highly Dysregulated in Breast Cancer Stem Cells”

### **Library 54**

#### **Literary Studies\***

**Presider: Jerry J. Alexander, Ph.D.**

Olivia J. Aldridge      “The Evolution of Dystopian Fear”

Allison R. Cooke      “The Poetry of Louise Glück: The Search for a Feminine Self”

### **Library 55**

#### **Sound**

**Presider: Kara L. Shavo, Ph.D.**

Brandon L. Morrow      “Efficient Coupling of Acoustic Power into Granular Materials”

William M. Grismore      “Acoustic Investigation of Buried Objects”

Edgar L. Alford      “Sound Propagation through Granular Material”

### **HP 214**

#### **Crusade Ideals and Motives\***

**Presider: Richard R. Heiser, Ph.D.**

Seth Brown      “Rhetoric Versus Reality During the Crusades”

William Hackney      “The Crusades’ Other Influences”

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\*30 minute presentations

# *Honors Day Symposium*

2:20-3:20 p.m.

## **Library 39**

### **Understanding Self-Concept and Self-Function\***

**Presider: Brooke C. Spatta, Ph.D.**

Anessa M. Pettis

“Improving 3D Printed Prosthetic Hand by Adding Skin and Efficient Wires and Sensors for Basic Movement”

Lauren E. Moore &  
Joel A. Tillirson

“Exploring Self-Concepts and Global Self-Worth in CHAMPS Students”

## **Library 54**

### **Improving Structure and Function**

**Presider: Eli T. Owens, Ph.D.**

Salem C. Wright

“The Effect of Grain Shape on Side-Wall Pressure in Model Grain Silos”

Malachi I. Koenig

“Research of Optical Physics: The Schlieren Effect”

Tyler P. Hogan

“Unintended Consequences of Corporate Average Fuel Efficiency Standards”

Nicole E. Alleva &  
Sydney Ronzulli

“3D Veterinary Prosthetics”

## *Honors Day Symposium*

2:00-4:00 p.m.

### **SENIOR ART PROJECT**

#### **Harper Center Gallery**

Katherine H. Gleaton

2:30-4:00 p.m.

### **MUSIC HONORS RECITALS**

#### **Edmunds Hall**

Olivia J. Aldridge	Soprano
Edgar L. Alford	Guitar
Harris H. Banks	Cello
Thomas T. Banks	Baritone
Seth M. Brown	Double Bass
Kellie C. Cleveland	Soprano
Collin J. McKinnon	Cello
Emlynn L. Shoemaker	Mezzo-soprano

**Belk Auditorium**

**Honors Convocation**

**Keynote Address**

**“The Importance of Research in a Liberal Arts Setting”**

Jerry K. Slice, Ph.D.  
Professor of Economics and Business Administration  
2016 Faculty Scholarship Award Winner

*Honors Day Symposium*

Robert H. Freymeyer, Ph.D., Co-Organizer and Program Chair  
Stefan W. Wiecki, Ph.D., Co-Organizer  
Latha A. Gearheart, Ph.D., Editor, Abstract Book