

# FIFTH SC LIFE COLLOQUIUM OF UNDERGRADUATE RESEARCH

*Benedict College – Alumni Hall  
Columbia, South Carolina  
April 21, 2007*



**Benedict College  
Claflin University  
Clemson University  
Morris College**

*Funded by an award from the Howard Hughes Medical Institute  
Undergraduate Science Education Program to Clemson University*

# AGENDA

## Saturday, April 21

- 9:30-10:00am      **Registration & Breakfast**  
*2<sup>nd</sup> floor Alumni Hall, main entrance*
- 10:00-10:20am      **Opening Remarks**  
*Rm 201-202 Alumni Hall (ALU)*  
Dr. Stacy Franklin Jones, Dean  
Benedict College - School of Science, Technology, Engineering & Mathematics
- 10:30am - 12:15pm      **Oral Presentations**  
*Alumni Hall*  
*Concurrent Sessions: ALU 105, ALU 302, ALU 309, ALU 311, ALU 212*
- 12:15- 1:30pm      **Lunch (BBQ)**  
*front parking lot of Alumni Hall & Rm 110*
- 1:30 - 3:20pm      **Oral Presentations**  
*Alumni Hall*  
*Concurrent Sessions: ALU 105, ALU 302, ALU 309, ALU 311, ALU 212*
- 3:30 - 4:30pm      **Poster Presentations & Refreshments**  
*Alumni Hall 304/305 and hallways of Alumni Hall*  
  
*Two 30 minute sessions - students with odd numbered posters should be at their posters from 3:30-4:00pm. Students with even numbered posters should be at their posters from 4:00-4:30pm.*

# ORAL PRESENTATIONS

TIME	SESSION A ALU 105 Chair - Jeremy Tzeng, Clemson University	SESSION B ALU 302 Chair - Julia Frugoli, Clemson University
10:30	<b>Katherine Davis</b> Expression, Purification, and Characterization of Acetate Kinase in Pathogenic Fungus, <i>Cryptococcus neoformans</i>	<b>Irine Chepkoech</b> Characterization and partial purification of acid phosphatase activity from insect flight muscles
10:42	<b>Anna-Lee Clarke</b> Effects of the proteasome inhibitor, MG-132 on cell cycle progression in breast cancer	<b>Sonya Nazar Prosser</b> The Partial Characterization of the Anti-Acne Peptide Jensenii P
10:54	<b>Renee Holland</b> <i>Micrococcus luteus</i> RLM3 adherence to a biological surface	<b>Andrew Phillips</b> The Concentration and Purification of Jensenii P
11:06	<b>Dylan Nielson</b> Analysis of HIV Protease Using Information Theory	<b>Brittany Adams</b> The Effects of Ultraviolet Light Activated Titanium Dioxide Nanoparticles on <i>Escherichia coli</i> .
11:18	<b>Stephanie Riffle</b> High Dose Macrophage Colony Stimulating Factor (M-CSF) Study	<b>Thomas Beckham</b> Bioactivity of Cottonseed Derivatives: Gossypol, 6'-methoxygossypol, 6,6'-dimethoxygossypol
11:30	<b>Louise Alexander</b> Microbiological Conversion of Biomass to Fuels	<b>Jimmy Ma</b> Antimicrobial Activity of Berberine from Goldenseal Extract
11:42	<b>Darryl Jones</b> Extracting Lipids from <i>Chlorella vulgaris</i> as a Source for Bio-diesel Fuel	<b>Meredith McCaskill</b> Use of yellowroot in the Upstate region of South Carolina
11:54	<b>Ryan Fecteau</b> Expression of Recombinant Bovine Follicle Stimulating Hormone in a Heterologous System	<b>J. Paul Radabaugh</b> The Influence of Selenium on Porcine Oviduct Epithelial Cell Function
12:15	LUNCH	LUNCH

# ORAL PRESENTATIONS

TIME	SESSION C ALU 309  Chair - Joe Culin, Clemson University	SESSION D ALU 311  Chair - Amy Lawton-Rauh, Clemson University
10:30	<b>Yarbough Miller</b> The Effects of Transcription Factors and Agents on Gene Expression	<b>E. Gregory Leveen</b> -Suitability of mitochondrial and nuclear markers for assessing variability of <i>Rotylenchulus reniformis</i> geographic populations
10:42	<b>Laura Hart</b> Screening Bacterial Genomes for Genes Involved in Cellular Response to Nitrosative Stress	<b>Tammy Schwalm</b> Detection of the Bacterial Proteorhodopsin Gene in a Terrestrial Ecosystem
10:54	<b>Ashley Parker</b> Assessment of Intracellular Glutathione Peroxidase utilizing Immunohistochemistry	<b>Stacy Sannem</b> Molecular Diversity Analysis of a Desert Cryptoendolithic Microbial Community
11:06	<b>Sherri Wegner</b> -Survey of Butterflies and Moths in Kings Mountain State Park, Kings Mountain National Military Park and Crowders Mountain State Park	<b>Erica Anderson</b> The Effects of Low-Dose Proton Radiation on Murine Bone
11:18	<b>Tara Hudak</b> -Immobilization of polymers and biomolecules for directing cell response	<b>Felicia Hawthorne</b> -Using Genetics in Marine Conservation and Management of North Carolina
11:30	<b>Yanille Scott</b> -Proteasome inhibition induces accumulation of ubiquitin-conjugates in MCF-7 cells	<b>Alisha Revotskie</b> -A comparison of biomarker responses in striped mullet and mummichog from the lower Sampit River, Georgetown, SC
11:42	<b>David LeBel</b> The Effects of Feverfew and Parthenolide on VEGF mRNA Expression in THP-1 Human Monocyte Cell Lines	<b>Margaret Beaudrot</b> -The Effects of Population Structure on Nucleotide Sequence Variation and Linkage Disequilibrium in Arabidopsis species
11:54	<b>Brittany Knick</b> Determination of Lipid and SQDG Content in Freshwater Algae	<b>Sarah Walker</b> Historical Population Genomics: How does gene flow and allele-sharing shape genetic variation across the genome?
12:15	LUNCH	LUNCH

# ORAL PRESENTATIONS

TIME	SESSION E ALU 212
	Chair - Tamara McNealy, Clemson University
10:30	<b>Richard Mason</b> Synthesis of an "Alkyl Imidazole" Inhibitor of $\alpha$ P2: A New Approach for Diabetes Treatment
10:42	<b>Laura-Mae Britton</b> Comparison of Type II Diabetes Mellitus and obesity in developing countries and the United States of America
10:54	<b>Morgan Perry Davis, Jr.</b> Synthesis of an "Azole" Inhibitor of $\alpha$ P2: A New Approach for Diabetes Treatment
11:06	<b>Spencer Kuper</b> The effects of prolactin signaling in the oviduct of transgenic mice
11:18	<b>David Jacobs</b> The effects of environmental stimuli on antibiotic resistance in <i>Francisella tularensis</i> LVS
11:30	<b>Leidamarie Tirado</b> Effects of low dose ionizing radiation on bone metabolism in rats
11:42	<b>Ryan Owens</b> Effects of simulated microgravity on muscles of the house cricket
11:54	<b>Teng Lu</b> Characterizing the effect of high-dose gamma irradiation on mice bone histology
12:15	<b>LUNCH</b>

TIME	SESSION F ALU 105
	Chair -Nick Panasik, Claflin University
1:30	<b>Anabel Greaves</b> How do enzymes react in high and low temperature: with respect to alpha/beta barrels
1:42	<b>Kelly Jones</b> In silico analysis of phosphoinositide binding proteins in the human protozoan parasite, <i>Entamoeba histolytica</i>
1:54	<b>Charles Wright</b> Cloning and Characterization of Proteins Involved in DNA Base Excision Repair
2:06	<b>Robert Glass</b> Uracil Repair Activity and Mutational Analysis of the Thymine DNA Glycosylase from <i>Schizosaccharomyces pombe</i>
2:18	<b>Amanda Coleman</b> Expression of Recombinant Proteins in <i>Pichia pastoris</i>
2:30	<b>Margaret Kearns</b> Analysis of <i>Trypanosoma brucei</i> Hexokinase 1 and 2 Multimers Using FRET and Size Exclusion Chromatography
2:42	<b>Kevin Gibbs</b> Identification and Expression of Dicer-like Proteins from <i>Trypanosoma brucei</i>
2:54	<b>Brennan Joseph Shutt</b> Expression and analysis of a truncated DICER homolog from <i>Trypanosoma brucei</i>
3:06	<b>Jeffrey Clinkscales</b> The Sas1 Signaling Pathway in <i>Dictyostelium discoideum</i>

# ORAL PRESENTATIONS

TIME	SESSION G ALU 302	SESSION H ALU 309
	Chair - Margaret Ptacek, Clemson University	Chair - Paula Agudelo, Clemson University
1:30	<b>Jennifer Chaikowski</b> Does hybrid genotype influence female mate choice preference?	<b>Jeffrey Morrison</b> Cloning of a Kinase-Associated Protein Phosphatase Gene from Arabidopsis
1:42	<b>Sabrina Hunter</b> Boldness and aggression in Appalachian brook crayfish, <i>Cambarus bartonii</i>	<b>Anna Marshall</b> Fine Mapping of the <i>lss</i> mutant in <i>Medicago truncatula</i>
1:54	<b>Timothy Jordan</b> Don't be shy: Boldness in the reef octopus, <i>Octopus briareus</i> .	<b>Bryce Seifert</b> The old and the new: transgenic <i>truncatula</i> and mapping mutants
2:06	<b>Lauren Hill</b> Behavioral syndromes in social and asocial spiny lobsters	<b>Suzanne Weaver</b> Generation of a tagged <i>M. truncatula</i> SUNN construct for identifying interacting proteins
2:18	<b>Carolyn Damon</b> Immune response in flight muscle histolysis.	<b>Daniel Ebner</b> Analysis of Arabidopsis Group 1 Late Embryogenesis Abundant Protein ATEM6 Effect on Seed Development
2:30	<b>Maritza Gill</b> Involvement of ubiquitin-mediated proteolysis in flight muscle histolysis	<b>Gabrielle Lahatte</b> Arabidopsis thaliana Group 1 LEA Proteins Involvement in Seed Maturation and Acquisition of Desiccation Tolerance
2:42	<b>Brian Corbett</b> Biodiesel Production from the Algae <i>Scenedesmus dimorphus</i>	<b>Beau Freeman</b> Mapping the <i>rae</i> mutation in <i>Medicago truncatula</i>
2:54	<b>Thomas Pfeiffer</b> Analysis of Algae-Produced Oil for Biodiesel Production	<b>Chris Glace</b> Analysis of Jensenin P production in 12 variant <i>Propionibacterium jensenii</i>
3:06	<b>Mary Katherine Watson</b> Advanced Modeling of Freshwater Algal Growth as a Function of Media Nutrient Content	<b>Guillermo DeAngulo</b> The Effects of Feverfew and Parthenolide on CCL3 Expression Levels in THP-1 Cells

# ORAL PRESENTATIONS

TIME	SESSION I ALU 311 Chair -Deborah Crawford, Morris College	SESSION J ALU 212 Chair - Harry Kurtz, Clemson University
1:30	<b>Ben Gaston</b> Improvement of semi-preparative isolation method for sulfoquinovosyl diacylglycerol from freshwater algae culture by solid phase extraction	<b>Clifford Chan</b> Bisphosphonate-Glucose Oxidase Conjugates for the Dissolution of Calcification Plaque
1:42	<b>Justin Montanti</b> Investigation of glycerol as an alternative carbon source for DHA production in <i>Cryptocodinium cohnii</i>	<b>Logan Johnson</b> Synthesis of Photoiniferter Monolayers for Polymer Grafting on Glass Surfaces
1:54	<b>Lindsey Sanders</b> Improvement of HPLC procedures for sulfoquinovosyldiacylglycerol determination from freshwater algal lipid extracts	<b>Thomas Moore</b> Characterization of Swelling Properties of PEG-co-MAA Hydrogels
2:06	<b>Alaina Law</b> Sugar Extraction from Peach Waste for Biofuels	<b>Suzanne Sawicki</b> Photoinitiator-induced protein denaturation during <i>in situ</i> photopolymerization
2:18	<b>Shweta Kailasan &amp; Renee McKell</b> African American men downregulate hZIP1 in the prostate gland as compared to European American men	<b>Meena Mirdamadi</b> Grafting of polymer gradients and patterns on glass surfaces
2:30	<b>Daniel Williams</b> The Effects of Feverfew on the Regulation of Anti-inflammatory Cytokine TGF- $\beta$	<b>Cindi Lewis</b> The role of human endogenous retroviruses (HERVW) in the occurrence of spontaneous habitual abortion
2:42	<b>Sian Ramlal</b> Ryanodine receptor expression and activity in breast cancer	<b>Shekelia Baccus</b> Does Summer Morph Producing Hormone influence Ecdysteroid Receptor protein expression in a seasonally polymorphic butterfly ( <i>Polygonia caureum</i> )?
2:54	<b>Sarah Brice</b> The Effects of Human Prolactin and its Antagonist G129R on Luteal Retention and Antral Follicle Number in the Murine Ovary	<b>Kristen Bieri</b> Cloning and Assembly of Major Ampullate Spidroin 1 from <i>Nephila clavipes</i>

# POSTER PRESENTATIONS

**3:30 - 4:30pm** - *Alumni Hall 304/305 and hallways of Alumni Hall.*

The poster presentations are divided into two 30-minute sessions. Students with odd numbered posters should be at their posters from 3:30-4:00pm. Students with even numbered posters should be at their posters from 4:00-4:30pm.

Your poster number is also your abstract number.

<u>Poster #</u>	<u>Student Name</u>	<u>Poster #</u>	<u>Student Name</u>	<u>Poster #</u>	<u>Student Name</u>
1.	Adams, Brittany	31.	Hart, Laura	61.	Moore, Thomas
2.	Alexander, Louise	32.	Hawthorne, Felicia	62.	Morrison, Jeffrey
3.	Anderson, Erica	33.	Hill, Lauren	63.	Nielson, Dylan
4.	Baccus, Shekelia	34.	Holland, Renée	64.	Olbrich, Jason
5.	Beaudrot, Margaret	35.	Hudak, Tara	65.	Owens, Ryan
6.	Beckham, Thomas	36.	Hunter, Sabrina	66.	Parker, Ashley
7.	Bieri, Kristen	37.	Jacobs, David	67.	Pheiffer, Thomas
8.	Brice, Sarah	38.	Johnson, Logan	68.	Phillips, Andrew
9.	Britton, Laura-Mae	39.	Jones, Darryl	69.	Prosser, Sonya
10.	Brown, LeTavious	40.	Jones, Kelly	70.	Radabaugh, Paul
11.	Chaikowski, Jennifer	41.	Jordan, Timothy	71.	Ramlal, Sian
12.	Chan, Clifford	42.	Kailasan, Shweta	72.	Revotskie, Alisha
13.	Chepkoech, Irine	43.	Kearns, Margaret	73.	Riffle, Stephanie
14.	Clarke, Anna-Lee	44.	Knick, Brittany	74.	Sanders, Lindsey
15.	Clinkscales, Jeff	45.	Kuper, Spencer	75.	Sannem, Stacy
16.	Coleman, Amanda	46.	LeBel, David	76.	Sawicki, Suzanne
17.	Corbett, Brian	47.	LaHatte, Gabrielle	77.	Schwalm, Tammy
18.	Damon, Carolyn	48.	Law, Alaina	78.	Scott, Yanille
19.	Davis, Katherine	49.	Leveen, Gregory	79.	Seifert, Bryce
20.	Davis, M. Perry	50.	Lewis, Cindi	80.	Shutt, Brennan
21.	DeAngulo, Guillermo	51.	Loney, Ted	81.	Tirado, Leidamarie
22.	Ebner, Daniel	52.	Lu, Teng	82.	Tynan, Sean
23.	Fecteau, Ryan	53.	Ma, Jimmy	83.	Walker, Sarah
24.	Freeman, Beau	54.	Marshall, Anna	84.	Watson, Mary Katherine
25.	Gaston, Benjamin	55.	Mason, Richard	85.	Weaver, Suzanne
26.	Gibbs, Kevin	56.	McCaskill, Meredith	86.	Wegner, Sherri
27.	Gil, Maritza	57.	Mc Kell, Renée	87.	Williams, Daniel
28.	Glace, Chris	58.	Miller, Yarbough	88.	Wright, Charles
29.	Glass, Robert	59.	Mirdamadi, Meena		
30.	Greaves, Anabel	60.	Montanti, Justin		

# 2006-2007 SC LIFE UNDERGRADUATE RESEARCH PROGRAM PARTICIPANTS

FACULTY MENTOR	SCHOOL AND DEPARTMENT	STUDENT	MAJOR	CLASS
John Abercrombie	<i>Clemson University - Biological Sciences</i>	Chris Glace	Microbiology	Junior
		Sonya Nazar Prosser	Microbiology	Senior
		Andrew Phillips	Microbiology	Senior
Paula Agudelo	<i>Clemson University - Entomology, Soils &amp; Plant Sciences</i>	E. Gregory Leveen	Horticulture	Senior
Omar Bagasra	<i>Clafin University - Biology</i>	Cindi Lewis	Biology	Sophomore
		Shweta Kailasan	Biotechnology	Sophomore
		Renee McKell	Biotechnology	Junior
Ted Bateman	<i>Clemson University - Bioengineering</i>	Erica Anderson	Biochemistry	Junior
		Teng Lu	Biochemistry	Senior
		Stephanie Riffle	Microbiology	Junior
		Leidamarie Tirado	Biochemistry	Junior
Dorothy Bishoff	<i>Morris College - Natural Sciences &amp; Mathematics</i>	LeTavious Brown	Biology	Freshman
		Shekelia Baccus	Biology	Freshman
Rebecca Bullard-Dillard	<i>Clafin University - Biology</i>			
Weiguo Cao	<i>Clemson University - Genetics and Biochemistry</i>	Robert Glass	Biochemistry	Senior
		Laura Hart	Biochemistry	Senior
		Charles Wright	Biochemistry	Senior
Chin-Fu Chen	<i>Clemson University - Genetics and Biochemistry</i>	Guillermo DeAngulo	Genetics	Senior
		David LeBel	Biochemistry	Senior
		Dylan Nielson	Biochemistry	Senior
		Daniel Williams	Genetics	Junior
Shu-Hua Cheng	<i>Clemson University - Genetics and Biochemistry</i>	Jeffrey Morrison	Biochemistry	Junior
Michael Childress	<i>Clemson University - Biological Sciences</i>	Lauren Hill	Biological Sciences	Junior
		Timothy Jordan	Biological Sciences	Senior
		Sabrina Hunter	Biological Sciences	Junior
Deborah Crawford	<i>Morris College - Division of General Studies</i>	Yarborough Miller	Biology	Junior
Joe Culin	<i>Clemson University - Entomology, Soils &amp; Plant Sciences</i>	Sherri Wegner	Chemical Engineering	Senior
Caye Drapcho	<i>Clemson University - Agricultural and Biological Engineering</i>	Brittany Knick	Biosystems Engineering	Senior
		Ben Gaston	Biosystems Engineering	Junior
		Lindsey Sanders	Biosystems Engineering	Junior
		Mary Katherine Watson	Biosystems Engineering	Senior
Steven Ellis	<i>Clemson University - Animal and Veterinary Sciences</i>	Sarah Brice	Biological Sciences	Senior
		Spencer Kuper	Biological Sciences	Senior
Julia Frugoli	<i>Clemson University - Genetics and Biochemistry</i>	Beau Freeman	Biochemistry	Senior
		Anna Marshall	Genetics	Senior
		Bryce Seifert	Genetics	Senior
		Sean Tynan	Genetics	Senior
		Suzanne Weaver	Biochemistry	Senior
Karen Hall	<i>Clemson University - Forestry &amp; Natural Resources</i>	Meredith McCaskill	Biological Sciences	Senior
J.Michael Henson	<i>Clemson University - Biological Sciences</i>	Louise Alexander	Biology	Senior
Naseema Hoosein	<i>Clafin University - Biology</i>	Sian Ramlal	Biotechnology	Sophomore
Xiuping Jiang	<i>Clemson University, Food Science &amp; Human Nutrition</i>	Jimmy Ma	Microbiology	Senior
Mokbul Khan	<i>Clafin University - Biology</i>	Laura-Mae Britton	Biology	Sophomore
Harry D. Kurtz, Jr.	<i>Clemson University - Genetics and Biochemistry</i>	Stacy Sannem	Genetics	Senior
		Tammy Schwalm	Genetics	Senior

FACULTY MENTOR		SCHOOL AND DEPARTMENT	STUDENT	MAJOR	CLASS
Amy	Lawton-Rauh	Clemson University - Genetics & Biochemistry	Margaret Beaudrot Sarah Walker	Biochemistry Genetics	Junior Senior
David	Magnin	Morris College - Natural Sciences & Mathematics	Richard Mason Morgan Perry Davis, Jr.	Mathematics Engineering	Freshman Freshman
William	Marcotte	Clemson University - Genetics and Biochemistry	Amanda Coleman Kristen Bieri Daniel Ebner Gabrielle Lahatte	Biochemistry Biochemistry Biochemistry Biochemistry	Senior Senior Junior Senior
Peter	Marko	Clemson University - Biological Sciences	Felicia Hawthorne	Biological Sciences	Senior
Tamara	McNealy	Clemson University - Biological Sciences	David Jacobs	Microbiology	Sophomore
Tamara	McNutt-Scott	Clemson University - Biological Sciences	J. Paul Radabaugh Ashley Parker	Biological Sciences Biological Sciences	Senior Senior
Andrew	Metters	Clemson University - Bioengineering	Tara Hudak Logan Johnson Meena Mirdamadi Suzanne Sawicki Thomas Moore	Chemical & Biomolecular Engineering Bioengineering General Engineering Bioengineering Bioengineering	Junior Junior Freshman Sophomore Sophomore
James	Morris	Clemson University - Genetics and Biochemistry	Kevin Gibbs Margaret Kearns Ryan Fecteau Brennan Joseph Shutt	Biochemistry Biochemistry Biochemistry and Genetics Genetics	Senior Junior Senior Junior
Rush	Oliver	Benedict College - Biology, Chemistry & Environmental Health Sciences	Anna-Lee Clarke Carolyn Damon Maritza Gill Irine Chepkoech Ryan Owens Yanille Scott	Biology Biology Biology Biology Biology Biology	Junior Junior Junior Sophomore Senior Senior
Nick	Panasik	Claflin University - Biology & Chemistry	Anabel Greaves	Biotechnology	Freshman
Paresh	Patel	Clemson University - Agricultural & Biological Engineering	Alaina Law	Agricultural Mechanization & Business	Senior
Margaret	Pracek	Clemson University - Biological Sciences	Jennifer Chaikowski	Biological Sciences	Senior
Kerry	Smith	Clemson University - Genetics and Biochemistry	Katherine Davis	Biochemistry	Senior
Lesly	Temesvari	Clemson University - Biological Sciences	Kelly Jones Jeffrey Clinkscales	Biological Sciences Spanish/Life Sciences	Senior Senior
Jeremy	Tzeng	Clemson University - Biological Sciences	Brittany Adams Renee Holland	Microbiology Microbiology	Senior Junior
Peter	van den Hurk	Clemson University - Biological Sciences	Alisha Revotskie	Biological Sciences	Senior
Alexey	Vertegel	Clemson University - Bioengineering	Clifford Chan Jason Olbrich	Bioengineering Bioengineering	Sophomore Sophomore
Terry	Walker	Clemson University - Agricultural & Biological Engineering	Brian Corbett Darryl Jones Ted Loney Justin Montanti Thomas Pheiffer	Biosystems Engineering Biosystems Engineering Biosystems Engineering Biosystems Engineering Biosystems Engineering	Senior Senior Junior Junior Senior
Xi	Wang	Clemson University - Genetics & Biochemistry	Thomas Beckham	Genetics & Biochemistry	Senior

# SC LIFE: Education & Outreach

Clemson University's SC LIFE Project, supported since 1998 by \$5.4 million from the Howard Hughes Medical Institute (HHMI) Undergraduate Science Education Program, and additional leveraged funding, provides life sciences education and outreach programs to middle and high school students and teachers throughout South Carolina and supports undergraduate research at four institutions (Benedict College, Claflin University, Clemson University, and Morris College). Our programs support middle school and high school curricula through virtual field trips ([www.knowitall.org](http://www.knowitall.org)), loans of equipment footlockers to certified teachers, workshops and graduate-level science courses for in-service teachers, community-based research, and the SC LIFE online database.

SC LIFE also supports students' participation in enrichment and research activities such as the Summer Program for Research Interns, Biology Merit Exam, laboratory field trips to the South Carolina DNA Learning Center and our Undergraduate Research Program.

## **Project Directors**

Dr. Barbara J. Speziale, Associate Dean, Academic Outreach and Summer Academic Programs  
Professor, Biological Sciences

Dr. James K. Zimmerman, Professor, Biochemistry (emeritus)

## **Faculty & Staff**

Ms. Ginger Foulk, SC LIFE Project Manager

Ms. Cora M. Allard, Lecturer, Biological Sciences, and SPRI Coordinator

Dr. Robert E. Ballard, Professor, Biological Sciences, and Director of the SC DNA Learning Center

Dr. Lisa C. Benson, Assistant Professor, Center for Advanced Engineering Fibers and Films

Dr. Karen J. L. Burg, Endowed Chair & Professor, Bioengineering

Dr. Joseph D. Culin, Professor, Entomology, Soils and Plant Sciences

Mr. John R. Cummings, Lecturer, Biological Sciences

Dr. Alix G. Darden, Associate Professor, Biology, The Citadel

Dr. Julia Frugoli, Associate Professor, Genetics and Biochemistry

Dr. Vincent S. Gallicchio, Professor, Biological Sciences, and Associate VP for Research

Dr. Karen C. Hall, Lecturer, Forestry and Natural Resources - Master Naturalist Program

Dr. Kathleen A. Kegley, Lecturer, Management, and the SC DNA Learning Center

Dr. K. Dale Layfield, Associate Professor, Biological Sciences

Dr. Patrick D. McMillan, Curator, Campbell Museum of Natural History

Dr. John C. Morse, Professor, Entomology, Soils and Plant Sciences

Dr. Edward B. Pivorun, Professor, Biological Sciences (emeritus)

Dr. Edward E. Ruppert, Professor, Biological Sciences (emeritus)

Dr. Timothy P. Spira, Professor, Biological Sciences

Ms. Stephanie D. Stocks, Lecturer, Biological Sciences

Dr. John R. Wagner, Professor, Geological Sciences

Dr. Jerry A. Waldvogel, Associate Professor, Biological Sciences

Dr. Greg K. Yarrow, Associate Professor, Forestry and Natural Resources

## **SC LIFE - Clemson University**

**College of Agriculture, Forestry and Life Sciences, Department of Biological Sciences**

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**[www.clemson.edu/SCLIFE](http://www.clemson.edu/SCLIFE)**

