

## Pearl Ramola Fernandes

Associate Professor of Biology  
Division of Science, Math and Engineering  
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### EDUCATION:

- Ph.D. December 1993 - Biological Sciences (Molecular, Cellular and Developmental Biology group), University of South Carolina, Columbia, SC  
Dissertation Title: "*Genetic Control of Erythrocyte Volume Regulation.*"
- M.S. May 1984 - Foods, Nutrition and Dietetics, Bombay University, India  
Thesis Title: "*Effect of Nutrition on the Health Status of the Aged in Upper and Lower Socioeconomic Groups.*"
- B.S. May 1982 - Life Sciences (first class), Bombay University (St. Xavier's College), India

### PROFESSIONAL EXPERIENCE:

- 2006- Present Associate Professor of Biology, University of South Carolina Sumter, SC  
2000- Present Affiliate Faculty, Women's Studies, University of South Carolina, Columbia, SC  
2000- Present Associate Faculty, School of the Environment, University of South Carolina, Columbia, SC  
2000- 2006 Assistant Professor of Biology, University of South Carolina Sumter, SC  
1998- 2000 Visiting Assistant Professor of Biology, University of South Carolina Sumter, SC  
1996-1997 Summer Visiting Assistant Professor Fellowship-American Society for Cell Biology, University of South Carolina School of Medicine, Columbia, SC  
1995- 1998 Assistant Professor of Biology, Morris College, Sumter, SC  
1994-1995 Postdoctoral Research Associate, Department of Food Science and Human Nutrition, University of Florida, Gainesville, FL  
1988-1993 Research Assistant and Graduate Student Instructor, Department of Biological Sciences, University of South Carolina, Columbia, SC  
1986-1988 Research Assistant and Instructor, Department of Nutrition, University of North Carolina, Greensboro, NC  
1984-1986 Assistant Professor of Nutrition, Bombay University, Bombay, India  
1984-1986 Resource Personnel in Nutrition, Indian Child Development Scheme, Bombay, India  
1984 Chief Nutritionist in Maternal and Child Health Programs, Catholic Relief Services, Bombay, India  
1984 Dietetic Internship (King Edward Memorial Hospital and Raheja Hospital)

### ACADEMIC AWARDS:

- 2005** *Who's Who Among America's Teachers* (2005) multiple student nominations  
**2004** Travel Award, School of the Environment, University of South Carolina, Columbia, SC

- 2003** Teacher of the Year, University of South Carolina Sumter, SC  
**2002** YWCA Tribute to Women in Industry (TWIN) Honoree Award, Sumter, SC  
**2002** Travel Award, School of the Environment, University of South Carolina, Columbia, SC  
**2002** Travel Award, American Society for Cell Biology and Histochemical Society, Washington, DC  
**2001** Governor's Professor of the Year Nominee, University of South Carolina Sumter, SC  
**2000** Teacher of the Year, University of South Carolina Sumter, SC  
**1997** Travel Award, American Society for Cell Biology  
**1993** Travel Award, American Society for Cell Biology  
**1993** Sigma XI, First Place Graduate Student Presentation Award  
**1992** Sigma XI, Second Place Graduate Student Presentation Award  
**1986** Travel Award to the U.S. from JRD Tata Company, Bombay, India  
**1986** Travel Award to the U.S. from Grindwell Norton Company, Bombay, India  
**1986** Award from Nirmala Niketan College (Bombay University) as Cultural Exchange Ambassador to Paris, France  
**1977** Senior Prefect, St. Joseph's High School, Bombay, India  
**1974** Overall Highest Score in Languages, Canossa Convent High School, Bombay, India

**COURSES CURRENTLY TEACHING: 12 courses/ year or 36 contact hours/year**

Biological Principles Part I and II, Lecture and Lab (BIOL 101 and 102)  
 General Biology, Lecture and Lab (BIOL 110)  
 Human Anatomy and Physiology Part I and II, Lecture and Lab (BIOL 243 and 244)  
 Genetics (BIOL 303)  
 Microbiology, Lecture and Lab (BIOL 270)  
 Women's Bodies in Health and Disease (WOST 113)  
 Special Topics Independent Study (BIOL 399)  
 Special Topics Independent Study (BIOL 599)  
 Coordinator for Introduction to the Environment Lecture and Lab course with Focus on Wetlands (ENVR 101)

**COURSES TAUGHT AT OTHER INSTITUTIONS:**

Domestic Animal Nutrition, Human Biology Lab- University of South Carolina Columbia, SC  
 Community Nutrition, Human Nutrition, Clinical Nutrition, Food Microbiology- Nirmala Niketan College, Bombay University, India  
 Vertebrate Developmental Biology (Lecture and Lab), Cell Biology (Lecture and Lab)- Morris College, Sumter, SC

**PUBLICATIONS:**

Reynolds JL, Pugh RL, **Fernandes PR**. 2005. *Cuterebra fontinella* (Botfly) Infestations in *P. Gossypinus* in S. Carolina. *Peromyscus Newsletter*, **38**: 23-24.  
**Fernandes PR**, Reynolds JL. 2003. Digital Radiography, a Novel Non-Lethal Method of Skull Analysis. *Peromyscus Newsletter*, **35**: 20-21.  
 Yi-de Mi, Borger DR, **Fernandes PR**, Pirisi L, Creek KE. 2000. Loss of Transforming Growth Factor- $\beta$  (TGF- $\beta$ ) Receptor Type I Mediates TGF- $\beta$  Resistance in Human Papillomavirus Type 16-Transformed Human Keratinocytes at Late Stages of *in Vitro* Progression. *Virology*,

270: 408-416.

**Fernandes PR**, Samuelson D, Cousins RJ. 1997. Immunohistochemical Localization of a Cysteine-Rich Intestinal Protein in Rat Duodenum. *American Journal of Physiology*, **272**: G751-759.

**Fernandes PR**, Dewey MJ. 1994. Genetic Control of Erythrocyte Volume Regulation. *American Journal of Physiology*, **261**: C211-219.

Tangney CC, Phillips G, Bell RA, **Fernandes P**, Hopkins R, Wu SM. 1989. Selected Indices of Micronutrient Status in Adult Patients with Sickle Cell Anemia (SCA). *American Journal of Hematology*, **32**: 161-166.

Tangney CC, Phillips G, Bell RA, **Fernandes P**, Thomas P, Segers E, Wu SM. 1989. Micronutrient Status in Adult Patients with Sickle Cell Disease. *Annals of the New York Academy of Sciences*, **265**: 472-473.

\* *Peromyscus Newsletter* is a communication among researchers in the *Peromyscus* field and is not refereed

#### **MANUSCRIPT IN REVIEW:**

Olvido AE, **Fernandes PR**, Mousseau TA. 2006. Genetic and Environmental Components affects Female Preference for Male Calling Song in a *Bivoltine* Cricket. *Acta Zoologica Sinica*.

#### **MANUSCRIPTS IN PREPARATION:**

**Fernandes PR**, Bishoff ST, Castleberry J, Morris JT. Nitrogen and Phosphorus Removal Efficiency of Natural Freshwater Wetlands receiving Treated Waste Water.

**Fernandes PR**, Garrett-Segedin, N, Reynolds, JL, Dewey MJ. Morphological and Molecular Analyses of *Peromyscus* Species at Poinsett State Park.  
All data collection completed.

#### **ONGOING RESEARCH PROJECTS:**

**Principal Investigator. Nutritional Assessment of Women Living with HIV/AIDS in Kenya.**

Collaboration was established in 2006 between USC Sumter; Meredith College in NC; Kenyatta University in Kenya; and a non-governmental organization (Rachel's Children's Home) in Kenya. The aims were to study the effects of nutrition, socioeconomic, and cultural factors in the susceptibility to HIV and progression from HIV to AIDS among women in rural Kenya. Fifteen women living with AIDS and 15 controls were studied. HIV tests and CD4+ counts were conducted to confirm results from the local testing centers. The survey included questions on education, social and cultural practices, treatment for HIV/AIDS, nutritional information, 24-hour dietary recall and anthropometric indices.

Abstract submitted to the 34<sup>th</sup> Annual International Conference on Global Health.

**Principal Investigator. Development, Teaching, and Assessment of HIV/AIDS modules.** The objectives are to develop, deliver and assess student learning of modules on the pathogenesis, virology, immunobiology, transmission, risk factors and treatment for HIV/AIDS. The modules are being delivered to biology majors and non-majors at USC Sumter and at Kenyatta University. Attitudes, beliefs and behaviors on HIV/AIDS are also included as part of the teaching modules. In the laboratory, students learn how to conduct HIV testing using simulated antibodies. Evaluation of the modules and student learning is being assessed through pre- and post- tests.

Data is presently being collected.

***Co- Principal Investigator. Clinical Assessment of Women Living with HIV/AIDS in Kenya.***

Through the collaboration between USC Sumter, Meredith College in NC, Kenyatta University in Kenya and a non-governmental organization (Rachel's Children's Home) in Kenya, a clinical assessment of women living with HIV/AIDS in rural Kenya was conducted. Parameters examined were white blood cell counts; percent hematocrit; CD3 and CD4+ counts; serum levels of alkaline phosphatase, alanine aminotransferase, aspartate aminotransferase; blood pressure; pulse rate; urine and fecal analysis; and anthropometric indices.

*Data is presently being analyzed.*

***Co- Principal Investigator. Analysis of sperm aggregation and competition between***

***Peromyscus species.*** It has been observed that sperm from most species of *Peromyscus* undergo extensive head-to-head aggregation, one of the first examples of this phenomenon in mammals. The hypothesis that sperm aggregation plays a role in competition between males of different species rather than within a species will be tested using *P. gossypinus* a species native to Sumter county, and whose distribution overlaps with *P. leucopus* (as has been previously determined by the Co-PI). All mice will be initially identified using molecular markers. Sperm from multiple males within the same *Peromyscus* species and then between the two species will be studied for hetero-aggregate formation. Multiple time points and several incubation conditions will be used to assess the dissociation of the aggregates and analyze single spermatozoa for fertilization potential (acrosome integrity). Aggregates and cells will be studied using fluorescent microscopy.

*A \$40,000/- grant was submitted on Nov. 22, 2006 to the Small Grant Program at USC Columbia*

***Principal Investigator. Water quality assessment in the Pocotaligo Swamp, Sumter County.***

The daily addition of approximately 45 million liters/day of treated sewage from the Sumter Pocotaligo Wastewater Treatment Plant on the Pocotaligo Swamp, a freshwater wetland in Sumter is being examined. A chemical analysis of nitrogen and phosphate in pore and surface water has been completed. Presently, sampling of benthic macro and micro invertebrates and fecal coliforms as bioindicators of water quality is being conducted.

*Data is presently being collected by undergraduate biology majors.*

***Principal Investigator and Coordinator. Interdisciplinary Courses on Southeastern Wetlands.***

Keeping up with the current trends in science education reform of linking education with complex civic issues, interdisciplinary linked courses in English 102 where the students study literature pertaining to natural history and wetlands, and Introduction to the Environment (ENVR) 101 with a special focus on southeastern wetlands issues are being taught at USC Sumter by biology and English faculty. The main objectives are (1) to help students develop interconnections among academic disciplines that pertain to the environment, (2) develop coordinated delivery strategies for interdisciplinary learning and civic engagement. The two linked courses were taught for the first time in Spring 2006. The courses will be taught again in Spring 2007 and will include student assessment of learning gains.

***Program Evaluator in Nutrition. Research on Social Work Practice and Concepts in Health.***

The aims of the project are to eliminate heart disease among African-American women in South Carolina and to empower African-American women in South Carolina to influence legislation that negatively impacts their health and wellbeing. Pre and post intervention daily caloric intake will be assessed through dietary logs maintained by the participants, and percent body fat will also be measured.

Grant will be submitted by the PI on Jan 27, 2006 to the Research Opportunity Program at USC Columbia to collect preliminary data.

#### **ONGOING COLLABORATIONS:**

Dr. Gabor Szalai- Associate Director of the Peromyscus Genetics Stock Center, USC Columbia, SC

Dr. John Mecham- Chair of Biology, Meredith College, NC

Dr. Michael Otieno- Chair, Clinical Sciences Department, Kenyatta University, Kenya

Dr. Sadye Logan- I. DeQuincey Newman Professor and Director of the I. DeQuincey Newman Institute for Peace and Social Justice, USC Columbia, SC

#### **PUBLISHED ABSTRACTS/ PROCEEDINGS:**

Reynolds J, **Fernandes PR**. 2006. *Peromyscus gossypinus* from Poinsett State Park: Molecular and Phenotypic Characterization. Abstract of presentation in *South Carolina Academy of Sciences Bulletin*, Vol LXVIII, Pg. 104.

**Fernandes PR**, Bellanca ME, Bacon M, West CA, Logue JF. 2005. Wetlands from the Literary, Biological, Mathematic and Economic Perspectives. Abstract of poster presentation in *Emerging Issues along Urban/Rural Interfaces Conference Book of Abstracts*, Pg. 117.

**Fernandes PR**, Bellanca ME, Bacon M, West CA, Logue JF. 2005. Wetlands from the Literary, Biological, Mathematic and Economic Perspectives. Abstract of poster presentation in *Science Education for New Civic Engagements and Responsibilities Summer Institute Poster Abstracts*.

Pugh R, Reynolds JL, **Fernandes PR**. 2005. Incubation Period and Development of Botfly Infestations in *P. Gossypinus* in S. Carolina. Abstract of poster presentation in *South Carolina Academy of Sciences Bulletin*, Vol LXVII, Pg. 100.

Reynolds JL, Pugh R, **Fernandes PR**. 2004. Identification of *Peromyscus* Species at Poinsett State Park using Morphological, Digital, Molecular, and Biochemical Techniques. Abstract of poster presentation in *South Carolina Academy of Sciences Bulletin*, Vol LXVI, Pg. 129.

Reynolds JL, Pugh R, Garrett-Segedin N, **Fernandes PR**. 2004. Identification of *Peromyscus* Species at Poinsett State Park using Morphological, Digital, Molecular and Biochemical Techniques. Abstract of presentation in *Southeastern Ecology and Evolution Conference Book of Abstracts*, Pg. 36.

**Fernandes PR**, Garrett-Segedin N, Woodly A, Logue JF. 2003. Survey of the Habitat and Morphological Analyses of *Peromyscus* at Poinsett State Park. Abstract of poster presentation in *South Carolina Academy of Sciences Bulletin*, Vol LXV, Pg. 76.

Garrett-Segedin N, Dewey MJ, **Fernandes PR**. 2003. Molecular Analyses of *Peromyscus* Species at Poinsett State Park. Abstract of poster presentation in *South Carolina Academy of Sciences Bulletin*, Vol LXV, Pg. 77.

**Fernandes PR**, Bishoff ST, Castleberry J, Morris JT. 2002. Nitrogen and Phosphorus Removal Efficiency of Natural Freshwater Wetlands receiving Treated Waste Water. Abstract of poster

- presentation in *American Society of Limnology and Oceanography Conference Book of Abstracts*, Pg. 46.
- Castleberry J, Bishoff ST, Morris JT, **Fernandes PR**. 2001. Impact of a Waste Water Treatment Plant Effluent on the Pocotaligo Swamp. Abstract of poster presentation in *South Carolina Academy of Sciences Bulletin*, Vol. LXIII, Pg. 65.
- Xu,X, Ferrante GJ, **Fernandes PR**, Mourateva E, Creek KE, Pirisi L. 1998. Human Keratinocytes and Tumor-Derived Cells Express Alternatively Spliced Forms of TGF- $\alpha$  mRNA Encoding TGF- $\alpha$  variants lacking the C-terminal Valine Critical for Cleavage of the Membrane-Anchored Precursor. Abstract of poster presentation in *Proceedings of the American Association for Cancer Research*. **39**: 406.
- Fernandes PR**, Ferrante GJ, Xu X, Mourateva E, Pirisi L, Creek KE. 1997. Immunolocalization of Epidermal Growth Factor Receptor and Transforming Growth Factor-alpha during Human Papilloma Virus Type 16-Mediated Human Cell Carcinogenesis. Abstract of poster presentation in *Molecular Biology of the Cell*. **8S**: 241A.
- Gearheart E, **Fernandes PR**. 1996. Essentials of Radiation. A Primer for Concerned Citizens. *Technical Pamphlet*. Paine College/SRS Building Environmental Justice Collaborations Project.
- Fernandes PR**, Samuelson D, Lewis P, Cousins RJ. 1995. Immunolocalization and Cellular Distribution of Cysteine-Rich Intestinal Protein in Rat Duodenum. Abstract of poster presentation in *FASEB J*. **9**: 4280.
- Fernandes PR**, Samuelson DA, Smith PJ, Lewis P, Cousins RJ. 1995. Morphologic and Altered Metal Binding of Ocular Melanin in the Lethal Milk (*lm*) Mouse. Abstract of poster presentation in *ARVO*. **15**: 4216.
- Cousins RJ, **Fernandes PR**. 1995. Identification of Cysteine-Rich Intestinal Protein in Reproductive Organs of the Rat. Abstract of poster presentation in *FASEB J*. **9**: 4281.
- Samuelson D, **Fernandes PR**, Lewis P, Cousins RJ. 1995. Altered Binding of Ocular Melanin in Lethal Milk (*lm*) Mouse. Abstract of poster presentation in *FASEB J*. **9**: 4275.
- Fernandes PR**, Dewey MJ. 1992. Genetic Control of Erythrocyte Volume Regulation. Abstract of poster presentation in *The Physiologist*. **35(5)**: 19A.
- Fernandes PR**, Dewey MJ. 1992. Genetic Control of Erythrocyte Volume Regulation. Abstract of poster presentation in *Molecular Biology of the Cell*. **30**: 302A.

#### **ABSTRACTS SUBMITTED:**

- Fernandes PR**, Otieno M, Mecham J, Riggs AR, Palchinsky J. 2006. Nutritional Assessment of Women with AIDS in Kenya: A Collaborative Approach. *34<sup>th</sup> Annual International Conference on Global Health*.
- Mecham J, **Fernandes PR**, Otieno M. 2006. Building an International Collaboration for HIV/AIDS Research and Teaching. *34<sup>th</sup> Annual International Conference on Global Health*.

#### **PRESENTATIONS:**

- Fernandes PR**, Smith B, Mecham J. 2006. HIV/AIDS in a Global Context. *Science Education for New Civic Engagements and Responsibilities Conference*, San Jose, CA.
- Fernandes PR**, Bellanca E, Logue J, Bacon M. 2006. Wet and Wild: Bridging the Gap between English and Biology. *Science Education for New Civic Engagements and Responsibilities*

- Conference, San Jose, CA.
- Fernandes PR.** HIV/AIDS and Cultural Food Practices. 2006. *Classroom presentation, Department of Geography, Texas A & M University, College Station, Texas.*
- Fernandes PR.** 2006. HIV/AIDS from the Classroom to the Field. *Classroom presentation, School of Public Health, University of South Carolina, Columbia, SC.*
- Fernandes PR.** 2006. Coordinated Natural History Courses- Bridging the Gap between English and Biology. *Regional Science Education Conference, Duke University, NC.*
- Fernandes PR,** 2006. Nature, Arts and Letters. *Panel Discussion, University of South Carolina Sumter, SC.*
- Fernandes PR.** 2005. Connecting Science to Learning. Invited Panel. *Science Education for New Civic Engagements and Responsibilities Conference, San Jose, CA.*
- Reynolds JL, **Fernandes PR.** 2003. Identification of *Peromyscus* Species using Novel Techniques. *NSF- REU Program, Department of Biology, University of South Carolina, Columbia, SC.*
- Mecham J, **Fernandes PR,** Fisher S, Garrett M, Kosal E. 2004. Life Science in Context: Sub-Saharan Africa. *Science Education for New Civic Engagements and Responsibilities Conference, San Jose, CA.*
- Fernandes PR.** 2003. Science Education for New Civic Engagements and Responsibilities. *American Society for Cell Biology National Conference, San Francisco, CA.*
- Segedin N, **Fernandes PR.** 2002. Morphological and Molecular Analyses of *Peromyscus* Species and Biogeography of its Habitat. *NSF-REU Program, Department of Biology, University of South Carolina, Columbia, SC.*
- Lopez Maria- Angelica, **Fernandes PR.** 2001. Women's Poetry: Poetry Recitation in Their Native Languages. *Annual Women's Studies Conference, University of South Carolina, Columbia, SC.*
- Fernandes PR.** 1999. Osteoporosis in African-American Women. Invited talk. *Wateree District DHEC Conference, Camden, SC.*
- Fernandes PR,** Bishoff ST. 1999. HIV Prevention and Education. *Wellness Conference, Myrtle Beach, South Carolina.*
- Fernandes PR.** 1999. Menopause and Hormonal Regulation. *Annual Women's Studies Conference, University of South Carolina, Columbia, South Carolina.*
- Fernandes PR.** 1999. Current Techniques in Recombinant DNA Technology. *Division of Science, Mathematics and Engineering, University of South Carolina Sumter, South Carolina.*
- Fernandes PR.** 1998. Developing an HIV/AIDS Curriculum at Morris College. *UNCF-HOPE Technical Workshop, New Orleans, Louisiana.*
- Fernandes PR,** Alston L. 1998. Hazardous Materials and Waste Management. Presentation at the *South Carolina Junior Academy of Sciences, Columbia, South Carolina.*
- Fernandes PR.** 1998. Effects of Radiation on Health. Invited talk at the *Environmental Justice for the Community Workshop, Sumter, South Carolina.*
- Fernandes PR.** 1997. Effect of Radiation on Health. Presentation at the *Environmental Justice and Research Program, Morris College, Sumter, South Carolina.*
- Fernandes PR.** 1997. Quest for Knowledge in Science. *Morris College Honors Seminar, Morris College, Sumter, South Carolina.*
- Fernandes PR.** 1997. Teaching Junior and Senior Level Courses at HBCU Schools. Presentation at the *Annual HBCU Symposium, Atlanta, Georgia.*

- Fernandes PR.** 1997. Grant Writing Seminar. *Morris College*, Sumter, South Carolina.
- Xu X, Ferrante GJ, **Fernandes, PR**, Mourateva E, Creek KE, Pirisi L. 1997. Alternative Splicing of Transforming Growth Factor- $\alpha$  in Normal and HPV16-Transformed Human Epithelial Cells. Abstract of poster presentation at the *16<sup>th</sup> International Papilloma Virus Conference*, Siena, Italy.
- Akerman GS, Engin TS, Zyzak LL, **Fernandes PR**, Mourateva E, Creek KE, Pirisi L. 1997. Interactions between the Epidermal Growth Factor Receptor and HPV 16 Oncoproteins in HPV 16-Mediated Human Cell Carcinogenesis. Abstract of poster presentation at *the 16<sup>th</sup> International Papilloma Virus Conference*, Siena, Italy.
- Olvido AE, **Fernandes PR**, Mousseau, TA. 1996. Effect of Rearing Environment for Female Preference for Male Calling Song in a *Bivoltine* Ground Cricket. *Annual Meeting for the Society for the Study of Evolution*, Washington University, St. Louis, Missouri.
- Olvido AE, **Fernandes PR**, Mousseau TA. 1996. Rearing Environment affects Song Preference in a Cricket. *Annual Meeting of the Animal Behavior Society*, Northern Arizona University, Flagstaff, Arizona.
- Gearheart W, **Fernandes PR.** 1996. Learning in Undergraduate Science Courses: Reality, Rhetoric or Perpetuated Myth. *Annual HBCU Symposium*, Memphis, Tennessee.
- Fernandes PR**, Dewey MJ. 1992. Genetic Control of Erythrocyte Volume Regulation. *South Carolina Academy of Sciences*, Columbia, South Carolina.
- Fernandes PR.** Common Nutritional Deficiencies in Women and Children in India. *Department of Nutrition, University of North Carolina at Greensboro*, NC.
- Fernandes PR**, Tangney CC. 1987. Cyclical Variations in Nutrient Status in Women in Various Phases of the Menstrual Cycle. *Annual Dietetic Association Meeting*, North Carolina Chapter, Greensboro, NC.
- Fernandes PR**, Isaac S. 1985. Effect of Nutrition on the Health Status of the Aged. Invited Presentation. *Annual Indian Dietetic Association Meeting*, Bombay Chapter, Bombay, India.
- Fernandes PR.** 1985. Training Village Health Workers from Rural Areas in Maternal and Child Health Care. Invited Presentation. *Indian Child Development Scheme Workshop*, Bombay, India.
- Fernandes PR.** 1984. Improving Nutrition and Hygiene in Women and Children in Central and SouthWest India. *Annual Catholic Relief Services Conference*, Delhi, India.

#### **GRANTS OBTAINED:**

- 2005** National Science Foundation Course Curriculum and Laboratory Instructional Grant. Life-Science in Context: Sub-Saharan Africa (Co-PI \$75,920/-).
- 2004** American Association of Colleges and Universities. Development of an Interdisciplinary Course Focusing on Wetlands in South Carolina. (PI \$3000/-).
- 2003** Research and Productive Scholarship. Molecular Markers to Study Species Diversity (PI \$6800/-).
- 2003** American Association of Colleges and Universities. Life - Science in Context. (One of three Co- PI's \$ 3500/-).
- 2002** Provost's Faculty Development Award. Molecular Markers to Study Species Diversity (PI \$1998/-).
- 2002** USC Sumter Faculty Development Award. Using Molecular Markers to Study Species Diversity (PI \$2000/-).

- 2001** USC Columbia School of the Environment. Incorporating Environmental Concepts into the Teaching Curriculum (PI \$3000/-).
- 1999** Research and Productive Scholarship. Water Quality Assessment of the Pocatigo Swamp. (Co- PI \$7000/-).
- 1998** UNCF- HOPE. HIV/AIDS Education and Prevention (PI \$10,000/-).
- 1998** Independent Colleges and Universities. Research with Undergraduates (PI \$3000/-).
- 1998** American Society for Cell Biology Renewal. Role of the EGF Receptor in Human Papillomavirus Type 16-Mediated Human Cell Carcinogenesis in Vitro (PI, \$12,000/-).
- 1997** American Society for Cell Biology. Role of the EGF Receptor in Human Papillomavirus Type 16-Mediated Human Cell Carcinogenesis in Vitro (PI, \$12,000/-).

**STUDENT FELLOWSHIPS (\$3000/- each):**

Nicole Segedin-Garrett (2002) and Justin Reynolds (2003) NSF-REU fellowships, McKaren Williamson (1996) UNCF Mellon Fellowship

**INDEPENDENT RESEARCH STUDIES WITH FRESHMAN AND SOPHOMORE BIOLOGY UNDERGRADUATES:**

Ashlee Riggs (Fall 2006)  
 Brittney Smith (Spring 2006- Fall 2006)  
 Justin Reynolds (Fall 2003- Fall 2004, Summer 2006)  
 Rahmaine Pugh (Summer 2003- Spring 2004)  
 Nicole Segedin-Garrett (Spring 2001- Spring 2002)  
 Amber Woodly (Summer 2002- Fall 2002)  
 Joshua Castleberry (Spring 2000- Spring 2001)  
 McKaren Williamson (Fall 1996- Spring 1998)

**GUEST EDITOR:**

*Southeastern Naturalist*

**CONFERENCE SESSION MODERATOR AT USC COLUMBIA:**

2006 Women's Studies Conference  
 2005 Women's Studies Conference, Responsible for bringing a panel from Chicago to present on Women's Studies Interdisciplinary courses.  
 2003 Women's Studies Conference  
 2002 Women's Studies Conference  
 2001 Women's Studies Conference

**SCIENTIFIC COMMITTEES AND ACTIVITIES:**

**National Committee (2001- 2004)**

**American Society for Cell Biology Minority Affairs Committee (ASCB MAC)**

Involved in collecting data for the 1.4 million Minority Access to Research Careers (MARC) Grant  
 Co-Chair of mentoring symposium for undergraduate minority students at the national meeting  
 Co-Chair for visiting professorship programs (\$100,000/ year budget)  
 Round table discussion leader on "Teaching and Research at Small Colleges" at the national ASCB meeting

Judge for undergraduate, graduate and postdoctoral travel awards at the national ASCB meeting  
Judge for undergraduate minority student posters at the national ASCB meeting

**Women in Cell Biology Committee (ASCB) *ad hoc***

**SERVICE TO THE CAMPUS:**

**USC Columbia**

Faculty Senate (2003- present)

Women's Studies Undergraduate Advisory Committee (2000- 2003)

Women's Studies Annual Conference Committee (2001- present)

**Regional Campuses of the USC System**

Provost's Academic Advisory Council (2006)

Faculty Senate (2001- 2004)

System Affairs Committee, Chair (2004)

Executive Committee (2004)

Research and Productive Scholarship Committee (2004)

Research and Scholarship *Ad Hoc* Committee (2004)

**University of South Carolina Sumter**

Promotion and Tenure Peer Review Committee (2006-present)

Biology Faculty Mentor (2006- present)

Scholarship and Awards Committee, (2002- 2003; 2005- present), Chair (2003)

Opening Convocation Committee, Chair (2004), Vice-Chair (2003, 2005)

Library Committee, Vice-Chair (2005)

Animal Welfare Committee (2002- 2004)

Martin Luther King Junior Day Committee (2002-2006)

Cultural Events Committee (2000-2003)

Faculty grant proposal reviewer (2004, 2005, 2006)

Biology Search Committee (2002, 2005)

Math Search Committee (2003)

Sociology Search Committee (2003, 2004, 2005)

**PROFESSIONAL SOCIETIES:**

American Association for the Advancement of Science (AAAS), American Society for Cell Biology (ASCB), American Society of Mammologists, Southeastern Naturalist, South Carolina Academy of Sciences, Women's Studies USC Columbia, National Association of Biology Teachers

**COMMUNITY INVOLVEMENT:**

Judge for South Carolina Junior Academy of Sciences oral and written presentations (1999-present), Judge Region II Science Fair (1999- present), Judge for elementary, middle and high school science fairs in Sumter County (at least three/ year), USC Sumter Math and Science Contest (2000-present), Will Drive Elementary School Science Outreach Program (2006), Presentations to three High Schools in Sumter County on Biotechnology and Genetics (2003), USC Columbia High School Summer Program (2001), Clarendon County High School Teacher of the Year Committee (2001),

Awards presenter at Region II Science Fair for USC Sumter (2000 & 2005), New Student Orientation Program speaker (2002), Women's Opportunity Fund Columbia (2000), Judge for Professional Women on Campus Outstanding Graduate Student (2000- 20003), YWCA TWIN Luncheon Committee Vice-Chair (2003), Speaker for Professional Educational Opportunities for Women Group (2006), Sumter Earth Day Celebration Organizer (2003, 2002), Columbia World Affairs Council (1998- 2005), Columbia Council for Internationals (1995- 2005), Columbia Dining with friends HIV/AIDS fund raiser (2000-present), USC Sumter Bicentennial Speaker (2000), Sumter WRJA television station featured speaker (2000), Presentation to USC Sumter Associates and Donors (2005), Sumter Chamber of Commerce Education Committee (2001- 2004), Richland/Lexington County USC Alumni Board (2006)

**REFERENCES:**

Dr. Robert J. Cousins, Ph.D.  
Boston Family Professor of Nutrition  
Food Science and Human Nutrition Department  
College of Agricultural and Life Sciences  
Director, Center for Nutritional Sciences and  
Joint Professor of Biochemistry and Molecular Biology  
College of Medicine  
University of Florida  
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