**Alix G Darden, PhD**

Research Professor

Director of Faculty Development

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**EDUCATION and TRAINING**

2012 Certificate of Medical Education (curriculum and Instruction), University of Cincinnati, OH.

2012 LEAD Certificate, – Leadership in Medical Education, AAMC, SGEA (Southern Group on Educational Affairs) initiative.

1984-1987 Postdoctoral Fellowship, McGill University and Royal Victoria Hospital, Montreal, Quebec, Canada

1984 Ph.D. in Immunology, Southwestern Graduate School, University of Texas, Dallas, TX *Immunochemical description of Syrian Hamster Monomorphic Class I Major Histocompatibility Complex Molecules*. J Wayne Streilein, advisor

1978 B.S. in Biology (cum laude), Brooklyn College, Brooklyn, NY

**PROFESSIONAL EXPERIENCE**

2009-present Director of Faculty Development, Research Professor, Department of Pediatrics, University of Oklahoma Health Sciences Center, Oklahoma City, OK.

2008 Full Professor, with tenure, Department of Biology, The Citadel, Charleston, SC.

2002-2008 Associate Professor, with tenure, Department of Biology, The Citadel, Charleston, SC.

1995-2002 Assistant Professor, Department of Biology, The Citadel, Charleston, SC

I have developed the following courses while at The Citadel: Genetics, undergraduate and graduate, lecture and lab, Microbiology, undergraduate and graduate, lecture and lab, Immunology, undergraduate, lecture, Molecular Biology, undergraduate, lecture and lab, Recombinant DNA, Theory, Practice and Issues, graduate, lecture and lab. I have also taught General Biology, the non-major core course requirement, lecture and lab, Introductory Biology for Biology majors, lecture and lab, and run the Research Internship program

2003-2008 Associate Professor, Adjunct Appointment, Associate Member of the Graduate Faculty, Department of Ophthalmology, Medical University of South Carolina, Charleston, SC.

1995 Assistant Professor, Department of Pediatrics, Medical University of South Carolina, Charleston, SC

1992-1995 Instructor, Department of Pediatrics, Medical University of South Carolina, Charleston, SC

As laboratory supervisor for the Pediatric Endocrinology research labs responsible for overseeing the basic science research projects of L.Lyndon Key, M.D., I was responsible for supervising research technicians and research fellows,

1989-1991 Part-time Instructor, Department of Biology, Trident Technical College, Charleston, SC

Taught General Biology, lecture and lab, Human Microbiology, lecture and lab.

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**SCHOLARSHIP**

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**GRANTS RECEIVED**

**Grants**

**Current – External Research**

1. **Health Resources and Services Administration, Bureau of Health Professions HRSA**-11-154. Training Faculty for Careers in Academic Primary Care. Grant No. D55HP23210. PM Darden, Principal Investigator. $1,009,753. 09/30/2011-09/30/2016. My role: evaluator.
2. **National Science Foundation - CCLI phase 2** – Biology Scholars Program 2. $600,000 Co-investigator – Alix Darden, 10/01/10 – 09/30/14

**Past – External Research**

1. **National Science Foundation - CCLI phase 2** - Enhancing Learning Improvements Through Evidence (ELITE) Scholars Program. $200,000 CoPI – Alix Darden
2. **Howard Hughes Medical Institute** - Clemson University Life Sciences Learning Center. $2,000,000. I was the external Consultant for assessment of learning. PI- Barbara Speziale. 2002 - 2011
3. **NSF – RUI**: Salamander green rod/blue cone visual pigment gene characterization. $169,000. 8/1/04-1/31/08 PI – Alix Darden.
4. **Iverson Genetic Diagnostics, Inc**. $3,000 contract to pay a student for summer research experience.
5. **National Science Foundation Research Experience for Undergraduates (NSF- REU) supplement** $4173 5/1/07 – 7/31/07 – PI – Alix Darden
6. **NSF-REU supplement** - $5858 5/1/06- 8/15/06 PI-Alix Darden
7. **South Carolina Biomedical Research Infrastructure Network, Collaborative Research Program**. Structural and functional characterization of a salamander visual pigment uniquely expressed in both rod and cone photoreceptors.
8. **Carnegie Scholar** – Administered by the Carnegie Foundation for the Advancement of Teaching and Funded by Pew Charitable Trusts. As a Carnegie Scholar I will be studying how modeling activities impact on students’ abilities to think abstractly. $9000. PI – Alix Darden. 2000-2001
9. **Charleston Scientific and Cultural Education Fund** – summer salary for a student to work on Characterization of the gene for xenopus green rod. $2500. PI – Alix Darden
10. **SC Commission on Higher Education, South Carolina Research Initiative Grants** – Characterization of a New Neuroprotective Gene. $62,300. PI – Alix Darden
11. **National Science Foundation Research Opportunity Award** – Cellular Localization of Visual pigments in Salamander Retina. To work with Jian-xing Ma, M.D., Ph.D. Department of Ophthalmology, MUSC. $10500.
12. **National Institutes of Health** – Superoxide and Bone Resorption. Co-investigator. $500,000. I was involved in writing the grant and obtaining preliminary data, although I left my position before the funding period started. Medical University of South Carolina.
13. **Food and Drug Administration** – Interferon Gamma (IND# BB-3368) Treatment of Osteopetrosis. Co-investigator - $526,770. Medical University of South Carolina.
14. **Juvenile Diabetes Foundation** – Role of the MHC Ia antigens found on Islets of Langerhans in insulin dependent diabetes mellitus. $68,000. McGill University. PI – Alix Darden.

**Past – Externally Funded Non-Research**

1. **American Association for Higher Education – “Going Public Grant”** to put on a local conference supporting the scholarship of teaching and learning. The conference “First Annual Charleston Connections: Innovations in Higher Education Conference Learning from Each other: The Citadel, The College of Charleston, The Medical University of South Carolina, Charleston Southern University and Trident Technical College”, at The Citadel. $4664. Co-PI’s Alix Darden and Suzanne Mabrouk.

**PUBLICATIONS**

**Peer Reviewed Publications**

**Scholarly Journal Publications – peer reviewed** - \* before a name indicates a student

1. \*Parker, RO, \*B McCarragher, AG Darden. Normal Development of the *Xenopus laevis* Green Rod and Violet Cone Photoreceptor Cells. **Anatomical Record, (3):383-7. 2010.**
2. \*Wu, BX, AG Darden, M Laser, Y Li, C Crosson, ES Hazard III, and JX Ma. The Rat Apg3p/Aut1p Homologue is Up-regulated by Ischemic Preconditioning in the Retina. **Molecular Vision, 12:1292-1302. 2006.** <http://www.molvis.org/molvis/v12/a146/>
3. MR Hinman, and Darden AG. Beyond Scholarly Teaching: Opportunities for Engaging in the Scholarship of Teaching and Learning in Physical Therapist Education**. J Physical Therapy Education** **19(3): 14-22. 2005**
4. Mabrouk, ST, DeRoma, VM, Brannan, KP, Mays, TM, Davakos, HD, Barrett, MB, Darden, AG, Fudge, LC. 2004. The Citadel Academy for the Scholarship of Teaching, Learning and Evaluation: An Interdisciplinary and Collaborative Approach. In:*Campus Progress: Supporting the scholarship of teaching and learning.* Cambridge, BL (ed.) **American Association for Higher Education, Washington, DC. 2004.**
5. \*Head R, \*Speck JG, Darden AG. The blue cone/green rod opsin promoter region and the deletion of the section within. **The Gold Star Journal, The Citadel’s Scholarly Journal, Charleston, SC. 2004.**
6. Darden, AG and Richardson-Jones, K. Student learning outcomes in a learner-centered genetics classroom. **Education, 124(1):31-39, 2003**.
7. Darden, AG, \*Wu, BX, Kono, M, Znoiko, SL, Hazard, ES, Crouch, RK, Ma, JX. Xenopus SWS2, P434 pigment: Sequence, expression and spectral properties. **Molecular Vision, 9:191-199. 2003.** <http://www.molvis.org/molvis/v9/a28/>
8. Darden, AG. Integrating Research and Teaching Heightens Value to and of Undergraduates. **ASM News, 69(7):331-335. 2003**.
9. Darden, AG. On the Nature of Scholarship of Teaching and Learning: Comparing Disciplinary Research and Educational Research. **ASM News, 68(4):152-153. 2002**
10. \*Joel Gramling and Alix Darden, Using Models in the Classroom and Measuring Their Effectiveness. In: **The Proceedings of First Annual Charleston Connections: Innovations in Higher Education Conference. June, 2001**
11. Darden AG. Assessing Classroom Research. **Focus on Microbiology Education 7(1):4-6. 2001**
12. Darden AG, Ries WL, Wolf WC, Rodriquiz RM, Key LL: Osteoclastic superoxide production and bone resorption: Stimulation and inhibition by modulators of NADPH oxidase. **Journal Bone and Mineral Research 11(5):671-675. 1996.**
13. Forbes RD, Gomersall M, Darden AG, Guttmann RD: Multiple patterns of MHC class II antigen expression on cellular constituents of rat heart grafts. Lack of correlation with graft survival, but strong correlation with vasculitis. **Transplantation 51(5):942-948, 1991.**
14. Darden AG, Forbes RDC, Darden PM, Guttmann RD: The effects of genetics and age on expression of MHC class II and CD3 antigens on cardiac interstitial dendritic cells. **Cell Immunol 126(2):322-330, 1990.**
15. Forbes RDC, Darden AG, Gomersall M, Guttmann RD: Patterns of donor major histocompatibility complex antigen expression in rat heart grafts and a model of chronic vascular rejection. **Transplant Proc 21(1):447-448, 1989.**
16. Forbes RDC, Lowry RP, Darden AG, Gomersall M, Marghesco DM: Morphologic studies of acute rat cardiac allograft rejection across an isolated major histocompatibility complex class I (RT1A) disparity. **Transplantation 45:943‑948, 1988.**
17. Forbes RDC, Darden AG, Gomersall M, Guttmann RD: Profiles of donor MHC antigen expression in rat cardiac allograft rejection. **Transplantation Proc 19:3454‑3458, 1987.**
18. Forbes RDC, Darden AG, Gomersall M, Parfrey NA, Guttmann RD: Evidence for dendritic cell‑lymphocyte clustering in vivo. **Transplantation Proc 19:195‑197, 1987.**
19. Darden AG, Forbes RDC, Guttmann RD: Rat cardiac dendritic cells: Frequency in inbred and congenic rats. **Transplant Proc 19(1):208, 1987.**
20. Darden AG, Forbes RDC, Parfrey NA, Darden PM, Guttmann RD: Genetics of Ia+ interstitial dendritic cells in the heart and pancreas of inbred and congenic rats. **Transplantation Proc 14: 208‑209, 1986.**
21. Forbes RDC, Parfrey NA, Gomersall M, Darden AG, Guttmann RD: Dendritic cell‑lymphoid cell aggregation and major histocompatibility antigen expression during rat cardiac allograft rejection. **J Exp Med 164: 1239‑1258, 1986.**
22. Darden AG, Streilein JW: Can a mammalian species with monomorphic class I MHC molecules succeed? **in Paradoxes in Immunology, eds. G.W. Hoffmann, J.G. Levy, G.T. Nepom, CRC Press, Boca Raton, p. 20‑26, 1986.**
23. Darden AG, Streilein JW: Identification of monomorphic MHC class I molecules in the Syrian hamster.  **Transplantation Proc 17: 1818‑1819, 1985.**
24. Darden AG, Streilein JW: Syrian hamsters possess monomorphic class I molecules. **Transplantation Proc 17: 980‑981, 1985.**
25. Darden AG, Streilein JW: Syrian hamsters express two class I major histocompatibility complex molecules, neither of which is polymorphic.  **Immunogenetics 20: 603‑622, 1984.**
26. Streilein JW, Darden AG, Phillips JT: Primordial MHC function may be best served by monomorphism. **Immunol Today 5: 87‑88, 1984.**
27. Darden AG, Streilein JW: Lack of Class I polymorphism in Syrian hamsters: Analyses using alloantisera and xenoantisera. **Transplantation Proc 15: 1565‑1566, 1983.**
28. Darden AG, Streilein JW: Syrian hamsters possess class I‑like molecules detectable with xenoantisera but not alloantisera. **Transplantation Proc 15: 145‑148, 1983.**
29. Stein-Streilein J, Lipscomb MF, Hart DA, Darden A: Graft‑versus‑host reaction in the lungs. **Transplantation 32: 38‑44, 1981.**

Deysine M, Chua A, Gerboth A: Selective delivery of antibiotics to experimental infection by autologous white blood cells. **Surg Forum 30:38‑39, 1979.**

**PRESENTATIONS**

**Presentations at Conferences and Professional Meetings**

**I- Peer Reviewed**

**A- Posters/Oral Presentations/symposia**

**1- National/International organizations**

1. Darden, AG, Embracing Scholarly Teaching is a Journey: The Biology Scholars Program. **Professional Organizational Developers Network in Higher Education Annual Meeting. Seattle, WA. Oct. 24-28, 2012**
2. Darden, AG, Taras, L, Chang, A. Leveraging Professional Society Resources to Catalyze SoTL Conversations on Campuses. **Professional Organizational Developers Network in Higher Education Annual Meeting. Atlanta, GA. Oct. 26-30, 2011**
3. Darden, AG and Graham C. The American Society for Microbiology’s Biology Scholars Program: Catalyzing Undergraduate Biology Education reform through SoTL. **Centennial Symposium on Scholarship of Teaching and Learning. Banff, Alberta, CANADA, Nov. 11-13, 2010**
4. Darden AG. Building Community in SoTL: A disciplinary society faculty development program. **Professional Organizational Developers Network in Higher Education Annual Meeting. Reno, NV, October 22-25, 2008**
5. \*McCarragher, B and Darden AG. Development and Characterization of Xenopus Red Cone Opsin and Violet Cone Opsin Antibodies. **FASEB Summer Research Conference: Biology and Chemistry of Vision. Snowbird, CO June 16-21, 2007**
6. \*Parker RO and Darden AG. Delayed Expression of the Green Rod Opsin in *Xenopus laevis* Development. **FASEB Summer Research Conference: Biology and Chemistry of Vision. Snowbird, CO June 16-21, 2007**
7. \*Parker RO and Darden AG. Normal Development of the *Xenopus laevis* green rod. Association for Research in Vision and Ophthalmology Annual meeting. Ft. Lauderdale, FL. 2006.
8. Darden AG, Benson S, Chang A, Elmendorf E, Gull K, Takayama K. Passing It On: Carnegie Scholars and the American Society for Microbiology (ASM) Collaborate in ASM’s Scholars in Residence Program. **International Society for the Scholarship of Teaching and Learning 2nd Annual Conference, Vancouver, Nova Scotia, October 14-16, 2005**
9. Darden AG and van Sickle M., Does Ongoing research serve as a vehicle to student learning of content and science processes? International Society for the Scholarship of Teaching and Learning 2nd Annual Conference, Vancouver, Nova Scotia, October 14-16, 2005
10. Darden AG and \*Parker RO. Characterization of the tiger salamander green rod/blue cone opsin promoter in transgenic *Xenopus laevis* embryos. FASEB Summer Research Conference: Biology and Chemistry of Vision. Tucson, AZ, June 18-23, 2005.
11. \*Parker RO and Darden AG.Salamander green rod/blue cone opsin promoter driven green fluorescent protein expression in transgenic *Xenopus* *laevis.* **1) Association for Research in Vision and Ophthalmology 2003 Annual meeting. Ft. Lauderdale, FL. 2005**
12. Darden AG. Engaging undergraduate students in research. American Society for Microbiology Conference on Undergraduate Education. New Orleans, LA, 2004.
13. \*Verdin M, Darden AG. Generation and identification of RGR-/- RPE65-/- double knockout mice. **Undergraduate research posters on the hill, Washington DC, 2004.**
14. Darden, AG, \*Wu, B, Kono, M, Znoykosi, S, Hazard, S, Crouch, R, Ma, JX. A novel cone-like pigment expressed in *Xenopus laevis* rod cells. **Association for Research in Vision and Ophthalmology 2003 Annual meeting. Ft. Lauderdale, FL. 2003**.
15. Darden, AG. From a student learning difficulty to a teaching technique to a classroom research project: Evolution of a SoTL project. **AAHE 2002 National Conference on Higher Education Colloquium on Campus Conversations. Chicago, IL, 2002.**
16. Darden, AG. Designing a research-based course using Genome Consortium for Active Teaching (GCAT) resources. **American Society for Microbiology Annual Meeting. Salt lake City, Utah, 2002**.
17. Darden, AG, D Fallon, S Mabrouk, B Zaremba. A Community of Teaching and Learning Scholars. Workshop presentation at: **AAHE 2001 National Conference on Higher Education Colloquium on Campus Conversations. Washington, DC. 2001.**
18. The Citadel. Many Builders….One CASTLE. The Citadel Academy for the Scholarship of Teaching, Learning and Evaluation. Poster presentation at: **AAHE 2001 National Conference on Higher Education Colloquium on Campus Conversations. Washington, DC. 2001.**
19. Mabrouk, S and AG Darden. From the classroom and beyond: The scholarship of teaching and learning. 2001 Annual Meeting of Southeastern Section of The American Society for Engineering Education. Charleston, SC. 2001.
20. Mabrouk, S and A Darden. From the classroom and beyond: The scholarship of teaching and learning. 2001 Annual Meeting of Southeastern Section of The American Society for Engineering Education. Charleston, SC. 2001.
21. EW Carter and Darden AG. Beyond the Textbook: Library Instruction in the Primary Science Literature. **Annual Conference of the American Library Association. New Orleans, LA. 1999.**
22. AG Darden and Carter EW. Using Literature searches and abstract reading to reinforce the concept of the scientific method. **Gordon Research Conference, Undergraduate Microbial Education. New London, CT, 1999.**
23. AG Darden and E.Carter. Searching the literature for credit and fun. **American Society for Microbiology Annual Meeting. Chicago, IL, 1999.**
24. Garcia-Gasca A, Darden A, Spyropoulos D, Capecchi M. A classic homeotic transformation in a Hoxc6 knockout mouse is rescued by the addition in *cis* of a mutation in Hoxc5. **Presented at: European Molecular Biology Conference on Mouse Molecular Genetic Meeting. Heidelberg, Germany, 1997.**
25. Darden AG, Oexmann MJ, Wentz B, Key LL: Infertility of the mi/mi Osteopetrotic mouse overcome by dietary intervention. **Biology of Reproduction**, **54s1:137, 1996.**
26. Key LL, Ries WL, Rodriguiz R, Darden AG: Interferon gamma stimulates bone resorption in the microphthalmic mouse via production of superoxide by NADPH oxidase. **J Bone and Mineral Res, 9s:s176. 1994**.
27. Darden AG, Oexmann MJ, Key LL: Increased longevity of osteopetrotic microphthalmic mouse by dietary intervention. **J Bone and Mineral Res, 9s:s348. 1994.**
28. Darden AG, Oexmann MJ, Hatcher HC, Key LL: Increased survival resulting from nutritional intervention in the microphthalmic model of osteopetrosis. **General Clinical Research Centers Program, Reston, VA, 1993.**
29. Darden AG, Oexmann MJ, Hatcher HC, Key LL: Increased survival resulting from nutritional intervention in the microphthalmic model of osteopetrosis. **American Society of Bone and Mineral** **Research, Tampa Bay, Florida. J Bone and Mineral Res, 8s:s697. 1993.**
30. Darden AG, Wolf WC, Ries WL. Key LL: Inhibition of superoxide production in osteoclasts by diphenyl iodonium chloride. **American society of Bone and Mineral Research, Tampa Bay, Florida. J Bone Min Res, 8s:s1106. 1993.**
31. Forbes RDC, Parfrey NA, Gomersall M, Darden AG, Guttmann RD: Modulation of donor MHC antigen expression during rat cardiac allograft rejection. **XI International Congress Transplantation Society, 1986.**
32. Darden AG, Forbes RDC, Guttmann RD: Rat cardiac dendritic cells: Frequency in inbred and congenic rats.  **XI International Congress Transplantation Society, 1986.**
33. Darden AG, Forbes RDC, Parfrey NA, Guttmann RD: Genetics of Ia+ interstitial dendritic cells in the heart and pancreas of inbred and congenic rats. **6th International Congress of Immunology, Toronto, 1986.**
34. Darden AG, Streilein JW: Identification of monomorphic MHC class I molecules in the Syrian hamster. **Rat Histocompatibility Workshop, 1984.**
35. Darden AG, Streilein JW: Syrian hamsters possess monomorphic class I molecules.  **X. International Congress Transplantation Soc, 1984,**
36. Darden AG, Streilein JW: Structural evidence for Syrian hamster class I molecules. **Amer Zool 22: 869, 1982.**
37. Darden AG, Streilein JW: Lack of class I polymorphism in Syrian hamsters. Analyses using alloantisera and xenoantisera. **Rat Histocompatibility Workshop, 1982.**
38. Darden AG, Streilein JW: Syrian hamsters possess class I‑like molecules detectable with xenoantisera but not alloantisera. **IX. International Congress Transplantation Soc S6.3, 1982**.
39. Darden AG, Streilein JW: Analysis of Syrian hamster MHC using xenoantisera. **Amer Zool 21: 9755, 1981.**
40. Gerboth A, Streilein JW: Analysis of Syrian hamster MHC using xenoantisera. **Fed Proc 40: 1052, 1981.**
41. Darden AG, Streilein JW: Evidence for a non‑polymorphic class I major histocompatibility locus in the Syrian hamster. 2nd Congress of the **International Society of Developmental and Comparative Immunology. Plenum Press, 1981.**
42. Deysine M, Chua A, Gerboth A: Kanamycin bound to a carrier selectively delivered intravenously to a target abscess by autologous white cells. **Fed Proc 38: 429, 1979.**
43. Chua A, Deysine M, Gerboth A: Kanamycin bound to a carrier selectively delivered intravenously to a target abscess by autologous white cells. **Crit Care M 7: 189, 1979.**
44. Deysine M, Chua A, Gerboth A: Kanamycin bound to a carrier selectively delivered intravenously to a target abscess by autologous white cells. **Clin Res 27: A343, 1979.**

**2- State/Regional organizations**

1. Darden, AG, Developing Scientific Thinking through constructivist learning. **Oklahoma Association of Community Colleges Annual Conference, February, 2010, Midwest City, OK**
2. Darden AG. Developing Scientific Thinking through Constructivist Learning1) 2009 Oklahoma Higher Education Teaching and Learning Conference, Broken Arrow, OK. 2) 2009 Bridging the Divide: Critical Thinking across Disciplines, Tulsa, OK.
3. \*Parker RO and Darden AG.Salamander green rod/blue cone opsin promoter driven green fluorescent protein expression in transgenic *Xenopus* *laevis.*  **78th South Carolina Academy of Sciences Annual Meeting, 2005**.
4. \*Speck JG, Darden AG. *In silico* analysis of the salamander green rod/blue cone promoter. **77th South Carolina Academy of Sciences Annual Meeting, 2004.**
5. \*Goldfinch S, \*Elliott M, \*Martinez M, \*Kilheffer, J, \*Speck, JG, \*Head R, Darden, AG. Salamander green rod/blue cone opsin promoter characterization: Creation of deletion mutations to identify the basal region. **77th South Carolina Academy of Sciences Annual Meeting, 2004.**
6. \*Parker R, Ramsdell A, Darden AG. Characterization of the salamander green rod/blue cone opsin promoter. **77th South Carolina Academy of Sciences Annual Meeting, 2004.**
7. \*Verdin DM, \*Wu B, Crouch, RK, Darden, AG. Sequencing the gene for Salamander Blue Cone/green rod Opsin.  **77th South Carolina Academy of Sciences Annual Meeting, 2004.**
8. \*Siegel, J and Darden, AG. Continued isolation of the salamander red rod opsin gene through screening of a salamander genomic library.  **77th South Carolina Academy of Sciences Annual Meeting, 2004.**
9. Darden, AG, \*Wu, B, Kono, M, Znoykosl, S, Hazard, S, Crouch, R, Ma, JX. *Xenopus laevis* rod cells express a novel cone-like pigment.**67th Annual Meeting of the South Carolina Academy of Science. Clemson, SC. 2003**
10. \*Shillinglaw, S, Darden, AG, Ma, JX. Isolation of the salamander red rod rhodopsin gene from salamander genomic library. 1) Summer undergraduate research presentations. Medical University of South Carolina. 8/7/02. 2) The Citadel 2nd annual undergraduate research conference, 3/15/03, Charleston, SC. 3) 67th Annual Meeting of the South Carolina Academy of Science. 3/21/03, Clemson, SC.
11. \*Hill, A, Darden, AG, Ma, JX. Isolating the tiger salamander green rod photoreceptor gene. 1) Summer undergraduate research presentations. Medical University of South Carolina. 2002. 2) The Citadel 2nd annual undergraduate research conference, 2003, Charleston, SC. 3) 67th Annual Meeting of the South Carolina Academy of Science. 2003, Clemson, SC.

**3- Local organizations**

1. Stull, TS and Darden, AG. An Emerging Agenda for child health research: OUHSC Pediatrics Department. **OUHSC Pediatrics CME GR, April, 2010.**
2. Darden AG. Intersection of Research and Teaching: Theory and Practice of Continuing Education **Pediatric CME/ Grand Rounds, December 10, 2009.**
3. Sheldon R and AG Darden. Continuing Medical Education:Just when you thought you knew the rules **Pediatric CME/ Grand Rounds, July 23, 2009.**
4. Darden AG. Evidence Based Teaching. **Pediatrics Fellows Professional Development Luncheon. Aug. 11, 2009.**
5. \*McCarrgher BD and AG Darden, Development and Characterization of Xenopus Red Cone Opsin and Violet Cone Opsin Antibodies **1) Seventh Annual Citadel Undergraduate Research Conference, 2008, 1st prize winner; 2) 41st Student Research Day, Medical University of South Carolina, 2007.**
6. \*Deptula, SR and AG Darden. Identification of transgenic *Xenopus laevis* transgenic frogs by multiplex PCR. **1) Seventh Annual Citadel Undergraduate Research Conference, 2008; 2) 41st Student Research Day, Medical University of South Carolina, 2007.**
7. \*Parker RO and Darden AG. Normal Development of the *Xenopus laevis* green rod**. 40th Student Research Day, Medical University of South Carolina, 2006.**
8. Darden, AG. The Role of Responsible play in the College Classroom. Fourth Annual Charleston Connections: Innovations in Higher Education Conference. Charleston, SC, 2005
9. \*Speck JG, Darden AG. *In silico* analysis of the salamander green rod/blue cone promoter. **Third annual Citadel Undergraduate Research Conference, 2004, Second prize winner.**
10. \*Parker R, Ramsdell A, Darden AG. Characterization of the salamander green rod/blue cone opsin promoter. **1) 38th Annual Student Research Day, Medical University of South Carolina. 2003.**
11. \*Verdin DM, \*Wu B, Crouch, RK, Darden, AG. Sequencing the gene for Salamander Blue Cone/green rod Opsin. **1) 38th Annual Student Research Day, Medical University of South Carolina. 2003. 2) Third annual Citadel Undergraduate Research Conference, 2004, First prize winner.**
12. Richardson-Jones, K and Darden, AG. Creating a learner centered classroom. Third Annual Lowcountry Conference on Teaching and Learning in Higher Education. Charleston SC, May 30, 2003.
13. Darden, AG and Richardson-Jones, K. Strategies to improve instruction through the use of qualitative survey information. **Third Annual Lowcountry Conference on Teaching and Learning in Higher Education. Charleston SC, May 30, 2003.**
14. \*Verdin, M, Darden, AG, Crouch, R, Ma, JX, \*Wu, B. Expression of all-transretinol dehydrogenase 10 (RDH10) to determine the enzymatic properties of the recombinant protein. **The Citadel 2nd annual undergraduate research conference, Charleston, SC. 2003 First prize winner.**
15. Darden, AG. Evolution of a Classroom Research Project: It’s all About Student Learning. Second Annual Charleston Connections: Innovations in Higher Education Conference. Charleston, SC, 2002
16. \*BWu, AG Darden and J-X Ma. Cloning and characterization of a novel human autophagy gene that may play a role in tumorigenesis. **Hollings Cancer Center Medical University of South Carolina, First Annual Research Retreat. Wild Dunes, SC, 2001**
17. \*J Gramling and Darden AG, Using Models in the Classroom and Measuring Their Effectiveness. First Annual Charleston Connections: Innovations in Higher Education Conference. Charleston, SC, 2001
18. Darden AG, \*Garcia SA, Demos C, Spryropoulos DD: Analysis of HoxC5 and HoxC6 single knock-out mutants and HoxC5-homeoboxdefective/HoxC6 knockout double mutants in the mouse. **Presented at: The Sixth South Carolina Statewide Research Conference. Isle of Palms, SC, 1997.**
19. Darden AG, \*Garcia SA, Demos C, Spryropoulos DD: Analysis of single and double knockout mutations in the mouse HoxC5 and HoxC6 genes. **Presented at Student Research Day, Medical University of South Carolina, 1996.**

**II- By Invitation**

**1-National/International organizations**

1. Darden, AG. Keynote presentation: “The intersection of research and teaching: Creating conditions that lead to change in a learner’s brain” **Southeastern Branch of the ASM. Nov. 7, 2009.**
2. Darden, AG. Keynote presentation: “The Scholarship of Teaching and Learning as Applied to Microbiology Education” **1)** **Missouri Branch of the ASM. March 28, 2009. 2) Indiana Branch of ASM, April 17, 2009.**
3. Darden, AG. Keynote presentation: The Intersection of Research and Teaching: Creating conditions that Lead to Change in a Learner’s Brain **1)** **Kentucky-Tennessee Branch of the American Society for Microbiology (ASM), October 4-5, 2008; 2) North Central Branch of the ASM. October 17-18, 2008; 3) Eastern Pennsylvania Branch, of the ASM. March 16, 2009.**
4. Darden, AG – 1) The Intersection of Research and Teaching: Creating conditions that Lead to Change in a Learner’s Brain and 2)The Scholarship of Teaching and Learning workshop, **12th Microbiology and Immunology Educational Strategies Workshop Myrtle Beach, SC, May 3-7, November 16-17, 2008**
5. Darden AG – session organizer. Evidence-based Teaching: The Scholarship of Teaching and Learning in Microbiology Education. **American Society for Microbiology 108nd General Meeting. Boston, MA, 2008**.
6. Darden, AG. 1) Keynote presentation: The Intersection of Research and Teaching: Creating conditions that Lead to Change in a Learner’s Brain and 2) The Scholarship of Microbiology Education Workshop. **Allegheny Branch of the American Society for Microbiology. Pittsburgh, PA**. **November 16-17, 2007.**
7. Darden, AG. Keynote Presentation: Microbiology Education: Opportunities and Challenges. **Sixth International Biennial conference of Pakistan Society for Microbiology. Islamabad, Pakistan, March 18-21, 2007.**
8. Darden, AG. The Intersection of Research and Teaching: Research as a Tool for Teaching. **The Giuseppina Raviola Memorial Seminar. Boston University School of Medicine, Department of Anatomy and Neurobiology. May 25, 2006**
9. Darden AG. Engaging undergraduate students in research. **11th Annual American Society for Microbiology Conference on Undergraduate Education. New Orleans, LA, 2004.**
10. Darden, AG. Striking a Balance between Learning, Teaching and Research. **American Society for Microbiology 102nd General Meeting. Salt Lake City. 2002**
11. Darden, AG. Using Literature searches and abstract reading to reinforce the concept of the scientific method. **Gordon Research Conference, Undergraduate Microbial Education. New London, CT**

**2- State/Regional organizations**

1. Darden AG. Developing Scientific Thinking through Constructivist Learning **1) 2010 Oklahoma Association for Community Colleges: Bridges and Barriers, Midwest City, OK. 2) 2009 Bridging the Divide: Critical Thinking across Disciplines, Tulsa, OK.**
2. Darden, AG. Characterizing the promoter of the salamander green rod/blue cone opsin gene: Research as a tool for promoting undergraduate learning. To colleagues at Winthrop University, College of Charleston and Coastal Carolina University. 2004-2005.
3. Darden, AG. ASM Undergraduate student and Faculty Initiatives. **South Carolina Branch of the American Society for Microbiology Annual Meeting. 2006**
4. Darden AG, Searching the Literature for Credit and Fun. **South Carolina Branch of the American Society for Microbiology, Annual meeting. Columbia, SC, 1998.**

**3- Local organizations**

1. Darden AG and \*BD McCarragher.Integrating Independent Research in the Undergraduate Curriculum: The Faculty and Student Perspective.  **The Citadel Phi Kappa Phi Lunchtime lecture series. March 19, 2008.**
2. Darden AG. The Intersection of Research and Teaching: Creating conditions that Lead to Change in a Learner’s Brain. **The Citadel Phi Kappa Phi Lunchtime lecture series. 2007**
3. Darden AG. Actively engaging students in the large classroom. **Medical University of South Carolina Appletree Society Teaching Forum, 2004, 2005. MUSC Pharmacology Residents – annually, 2005-2008**
4. Darden, AG. Searching the literature for credit and fun. **Citadel Communication Across the Curriculum luncheon. 1998**

**B- Workshops**

1. Darden AG. Creating critical thinkers by providing opportunities for students to construct their knowledge: Theory and Practice. **Southwestern Oklahoma State University. March 30, 2010.**
2. Darden, AG, Developing Scientific Thinking through constructivist learning. Oklahoma Association of Community Colleges Annual Conference, February, 2010, Midwest City, OK
3. Darden AG. Creating critical thinkers by providing opportunities for students to construct their knowledge: Theory and Practice. **Southwestern Oklahoma State University. March 30, 2010**
4. Darden, AG.Moving SoTL projects forward: Applying what you already know and do to SoTL. Methodologies and literature searches. **National CASTL Institute, 2010. Omaha, NB.**
5. Darden, AG. Teaching is leading students into a situation in which they can only escape by thinking. Learning taxonomies**. Pediatrics Professional Development Lunch, August, 2010.**
6. Benson, S, Darden, AG, Elmendorf, H, Takayama, K. Organizers and facilitators of **ASM’s Scholars in Residence Program 3-day Workshop. Annually, 2004-present.**
7. Benson S, Darden AG. Designing Your Project in the Scholarship of Teaching and Learning. Preconference Workshop. **10th Annual American Society for Microbiology Conference on Undergraduate Education. Baltimore, MD. 2003**
8. Darden, AG. Workshop facilitator – “Expose yourself to the scholarship of teaching and learning.” **University of Portland, Oregon. October 5, 2002.**

**TEACHING – past 5 years**

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| Activ-ity # | Inclusive dates\* | Title | Your Role | Teaching strategy (context) | Type of  learner | Contact or classroom hours/yr | Evaluation of activity (where available) |
|  | Fall, 2011, Spring 2013 | All lecturers in Molecular Genetics for Genetic counselors | Presenter, test writer, exam creator and grader | Small group interactive session | Masters in Genetic Counseling students | 24 | Lecturer effectiveness 4.4 (out of 5) |
|  | 2011-present | Academic Medicine and CV’s | Presenter | Small group interactive session (Common Curriculum course - 3C) | Pediatric Fellows | 1 | NA |
|  | 2011-present | Academic misconduct and fraud | Presenter | Small group interactive session (3C) | Pediatric Fellows | 1 | NA |
|  | 2011 - present | Endnote – organize your references and write faster | Presenter | Small group interactive session (3C) | Pediatric Fellows | 1 | NA |
|  | 07-12-11 | What the resident educator needs to know about the ACGME competencies | Co-Presenter | Small group interactive session (Professional development lunch) | Pediatric Fellows and faculty | 1 | NA |
|  | 2011-present | Writing Abstracts | Presenter | Small group interactive session (3C) | Pediatric Fellows | 2 | NA |
|  | 2011 - present | Presenting your work – oral and poster presentations | Presenter | Small group interactive session (3C) | Pediatric Fellows | 2 | NA |
|  | 2011-present | The Role of Mentors and Mentees | Presenter | Small group interactive session (3C) | Pediatric Fellows | 1 | NA |
|  | 8-12-10 | Teaching is leading students into a situation in which they can only escape by thinking: learning Taxonomies | Presenter | Small group interactive session (Professional development lunch) | Pediatric Fellows and faculty | 1 | NA |
|  | 12-10-09 | Intersection of Research and Teaching: Theory and Practice of Continuing Education. | Presenter | Interrupted lecture with ARS (Pediatric CME GR) | Pediatric faculty, trainees, students, staff | 1 | Overall positive comments |
|  | 8-11-09 | Evidence Based Teaching | Presenter | Small group interactive session (Professional development lunch) | Small group interactive session (Professional development lunch) | 1 | Overall positive comments |
|  | 7-23-09 | Continuing Medical Education: Just when you thought you knew the rules | Co-Presenter | Interrupted lecture (Pediatric CME GR) | Pediatric faculty, trainees, students, staff | 1 | NA |
|  | Fall, 2008 | Microbiology, lecture and laboratory | All aspects of the course | Interrupted lecture | Undergraduate Biology majors - 24 | 84 | Lecturer effectiveness - 5 (out of 5) |
|  | Spring, 2008 | Genetics, lecture and laboratory (2 sections) | All aspects of the course | Interrupted lecture | Undergraduate Biology majors - 28 | 126 | Lecturer effectiveness – 4.9 (out of 5) |
|  | Spring, 2008 | Graduate Teaching internship | All aspects of the course | One-on-one teaching in a laboratory setting | Post-doctoral fellow from the Medical University of South Carolina | 56 | NA |
|  | Fall, 2007 | Genetics, lecture and laboratory | All aspects of the course | Interrupted lecture | Masters level Biology and biology education majors 1 25 | 84 | Lecturer effectiveness – 4.9 (out of 5) |
|  | Fall, 2007 | Biochemistry literature Review | All aspects of the course | Small group discussion | Undergraduate Biochemistry minors - 4 | 14 | Lecturer effectiveness - 5 (out of 5) |
|  | Fall, 2007 | Molecular Genetics, lecture and laboratory | All aspects of the course | One-on-one teaching in a laboratory setting | Undergraduate Biology majors - 1 | 84 | NA |
|  | Spring, 2007 | Genetics, lecture and laboratory (2 sections) | All aspects of the course | Interrupted lecture | Undergraduate Biology majors - 26 | 126 | Lecturer effectiveness - 5 (out of 5) |

**TEACHING MATERIALS DEVELOPED**

2010-current Core curriculum for Pediatric sub-specialty fellowships

2010-current Mentorship program for residents

2005-current The Scholarship of Teaching and Learning (SoTL) Summer Institute, 3-day training workshop for science faculty.

**PROFESSIONAL SERVICE**

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**COMMITTEE SERVICE**

**Pediatric Department**

2009 –current Development of Pediatric Research Strategic Plan

2009 – current ad hoc member, Women in Pediatric Medicine

2009-current Chair, Pediatric Faculty Awards committee

2009-current Member, Pediatrics Promotion and Tenure committee

**University Service - OUHSC**

2012 Member, College of Medicine, Committee on Committees

2011-current Member, Institutional Review Board

2009-2010 Alternate on Faculty Senate

**Service to Discipline**

2012 Reviewer, Applications for the Academic Pediatric Association Educational Scholars Program.

2004- current Advisory board for ASM’s Scholars in Residence Program

2003-2012 Scholarship of Teaching and Learning representative on the ASM Undergraduate Education Board

**MANUSCRIPT REVIEW**

2010- current MedEdPortal

2010 – current Journal of College Science Teaching

2007-current Journal of Microbiology and Education

**GRANT REVIEW**

2010 National Science Foundation.

**EDUCATIONAL ADMINISTRATION AND LEADERSHIP**

2012 - current Member, Academy of Teaching Scholars, University of Oklahoma Health Sciences Center, Oklahoma city, OK

2009- current Pediatrics Research Day organizing committee. – 2011 – Located a professional company to host abstract submissions and create abstract book. 2010 created a website for abstract submission.

2010- 2011t co-chair - College of Medicine Academy of Teaching Scholars exploratory committee

2009-current Administrative coordinator for Pediatrics CME activities – annual conference, weekly CME GR, assist other in sectional CME activities.

**HONORS AND AWARDS**

2012 Academy of Teaching Scholars - Selected as member of the inaugural cohert – OUHSC College of Medicine

2008 2008 CASE US Professors of the Year, South Carolina Professor of the Year

2001, 2006-2008 SC Governors Distinguished Professor Award.

2007-2009 American Society for Microbiology Branch Lecturer

2004-2005 Year long Sabbatical - Storm Eye Institute, Medical University of South Carolina, Charleston, SC

1. Medbery Award for the Dedication to Teaching, The Citadel

2001-2002 Carnegie Scholar – Administered by the Carnegie Foundation for the Advancement of Teaching and Funded by Pew Charitable Trusts

**MEMBERSHIPS**

American Association for the Advancement of Science

Academic Pediatric Association

Academic Pediatric Program Directors

American Society for Microbiology

Council on Undergraduate Research

International Society for the Scholarship of Teaching and Learning (ISSoTL)

National Association for Biology Teachers

National Science Teachers Association

National Association for Research in Science Teaching

Phi Kappa Phi National Honor Society

Professional and Organization Development Network in Higher Education

Sigma Xi

**Last updated: June 18, 2013**