

**CLAUDIA LUCIA ROCHA B.**

**CURRICULUM VITAE**

Department of Biology. The Citadel.  
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**EDUCATION**

Universidad de Los Andes, Bogotá, DC. Colombia. 1983-1986  
BS in Microbiology.

Internship: Instituto de Inmunología. Hospital San Juan de Dios.  
Bogotá, DC. Colombia. Jan. 1987-Jan. 1988.

Medical University of South Carolina. Charleston, SC. 2000-2006  
PhD in Pathology and Laboratory Medicine, with honors.  
“Analysis of the bifunctional effects of *Pseudomonas aeruginosa* Exoenzyme S on macrophage function”.

Post-doctoral Fellow. Aug. 2006-July 2008.  
Department of Medicine, Division of Nephrology.  
Medical University of South Carolina. Charleston, SC.  
“Mechanism of TACE/ADAM-17 activation by the GPCR 5-HT<sub>2A</sub> in renal mesangial cells”

**POST-GRADUATE COURSES**

Molecular Biology Techniques.  
Instituto de Inmunología. Hospital San Juan de Dios.  
Bogotá, DC. Colombia. Dec. 1987.

Eukaryotic Transfection.  
Instituto de Inmunología. Hospital San Juan de Dios.  
Bogotá, DC. Colombia. Feb. 1988.

Applications of the DNA and recombinant synthetic peptides in the diagnosis of human diseases.  
Instituto Venezolano de Investigaciones Científicas (IVIC).  
Caracas, Venezuela. Nov. 12-23, 1990.

Bacterial Pathogenesis.  
The Rockefeller University.  
New York, NY. USA. Feb.-May, 1995.

## **WORK EXPERIENCE**

Aug. 2009-2015. Assistant Professor.  
2015-2017. Tenured Assistant Professor.  
2017-Present. Associate Professor.

Department of Biology.

The Citadel. Charleston, SC.

-Bacterial Pathogenesis. "Effects of *Pseudomonas aeruginosa* Exoenzyme S on macrophage function"

-Ecology. "Use of salt marsh periwinkles as bioindicators of fecal contamination in tidal creeks".

"Detection of bacteria in nuisance flooding associated with climate change: (Collaboration with Dr. John Weinstein)

-Cell Biology. "Extra nuclear localization of histone H3 in different human cell lines" (Collaboration with Dr. Kathy Zanin).

March 2011-Present. Adjunct Assistant Professor.

Department of Microbiology and Immunology.

Medical University of South Carolina.

Charleston, SC.

Oct. 1993-Aug. 2000. Guest Investigator.

Laboratory of Bacterial Pathogenesis and Immunology.

The Rockefeller University. New York, NY.

"Isolation and characterization of a novel fibronectin-binding protein on the surface of Group A Streptococci".

Jan. 1988-Dec. 1995. Research Associate.

Laboratory of Molecular Biology.

Instituto de Inmunologia. Hospital San Juan de Dios.

Universidad Nacional de Colombia. Bogota, DC. Colombia.

"Identification and characterization of species-specific genes from *P. falciparum* and *M. tuberculosis*".

Jan. 1988-Oct. 1993. Research Associate.

Division of Epidemiology-Clinical and field trials.

SPf66-Malaria Vaccine Project.

Instituto de Inmunologia. Hospital San Juan de Dios.

Universidad Nacional de Colombia. Bogotá, DC. Colombia.

## **HONORS AND AWARDS**

-2<sup>nd</sup> prize Student's presentations.

Department of Pathology and Laboratory Medicine.

Medical University of South Carolina. 2003-2004

-Nominee for the Provost Scholarship.

Medical University of South Carolina. 2004.

-Office of Diversity Scholarship. Office of Graduate Studies.  
Medical University of South Carolina. Dec. 2004.

-Finalist, Distinguished Graduate Student Award. College of Graduate Studies.  
Medical University of South Carolina. May, 2007.

-Ralph H. Johnson VAMC Student Research Honorable Mention. Perry V. Halushka MUSC  
Student Research Day. November 2, 2007.

-1<sup>st</sup> Place. Citadel Undergraduate Research Conference, March 8, 2013. The Citadel, Charleston, SC.  
(Lance C. Braye).

-Outstanding Poster Presentation by Undergraduate Student. SCBASM Spring Meeting, April 9, 2016.  
MUSC, Charleston, SC. (Matthew C. Scalise).

-2016 Bowers Research Presentation Award.

-2017. Sigma Xi Award. Citadel Student Research Conference, March 17, 2017. The Citadel,  
Charleston, SC. (Gray Klosinski).

## **TEACHING EXPERIENCE**

The Citadel, Charleston, SC.  
Aug. 2009-Present. Professor.

### -Undergraduate Level

-Microbiology (BIOL310/290) and Microbiology Laboratory (BIOL310/290L).

-Fall 2009, 2010, 2011, 2012, 2013, 2015, 2019

-Spring 2015, 2017, 2018, 2019

-General Biology I (BIOL101).

-Fall 2011, 2012, 2013, 2014, 2018.

-General Biology II (BIOL102).

-Spring 2010, 2011, 2012, 2014.

-Intern Research (BIOL320).

-Spring 2010, 2012, 2014, 2017, 2018.

-Fall 2018, 2019.

-Introduction to Biology II (BIOL140).

-Spring 2013, 2015.

-Introduction to Biology II Laboratory (BIOL141).

-Spring 2013, 2014, 2016, 2017.

-Honors 400 (HONR400)

-Fall 2013, 2014, 2015.

-Spring 2020.

-Honors 401 (HONR401)  
-Spring 2014.

-General Biology for Engineers (BIOL150).  
-Fall 2015, 2016, 2017, 2018.  
-Spring 2016, 2019, 2020.

-Graduate Level

- Microbiology (BIOL607/310) and Microbiology Laboratory (BIOL607/310L).  
-Spring 2010, 2012, 2020.  
-Fall 2014, 2017.

-Graduate Independent Study (BIOL611).  
-Spring 2015.

Medical University of South Carolina, Charleston, SC

-*Summer 2010 (July 12-August 13), 2011 (July 18-August 12).*  
Summer Review Course (CGS 650).  
College of Graduate Studies.

-*Spring 2004.* Lecture-Bacterial Pathogenesis.  
Pathology unit-Mechanisms of Disease.  
College of Graduate studies. Core-Curriculum.

College of Charleston, Charleston, SC

-*Fall 2008.* Assistant Instructor.  
Molecular Biology Laboratory (Biol312L).

University of Los Andes, Bogota, Colombia

-*Fall 1988.* Lecturer.  
Course of Molecular Biology.  
Master's program.

-*Fall 1986.* Teaching Assistant.  
Course of Immunology.  
Instructor: Dr. Myriam Navarrete.

**PUBLICATIONS (Peer-reviewed)**

1. Matthew C. Scalise, Lance C. Braye, Jamel L. Brown and **Claudia L. Rocha**. Manuscript in preparation.
2. Carly B. Williams<sup>#</sup>, John E. Weinstein and **Claudia L. Rocha**. 2016. Water quality and fecal coliform levels in Georgia Oxbow Lakes relative to connectivity with the Savannah River. *Georgia Journal of Science* 74(2): Article 8.

3. Dacie R. Bridge, Karen H. Martin, Elizabeth R. Moore, Wendy M. Lee, James A. Carroll, **Claudia L. Rocha** and Joan C. Olson. 2012. Examining the role of actin-plasma membrane association in *Pseudomonas aeruginosa* infection and type III secretion translocation in migratory T24 epithelial cells. *Infection and Immunity* 80(9): 3049-3064.
4. Arlinet Kierbel, Ama Gassama-Diagne, **Claudia Rocha**, Lilliana Radoshevich, Joan Olson, Keith Mostov and Joanne Engel. 2007. *Pseudomonas aeruginosa* exploits a PIP3-dependent pathway to transform apical into basolateral membrane. *The Journal of Cell Biology* 177(1): 21-27.
5. **Claudia L. Rocha**, Elizabeth A. Rucks, Deanne M. Vincent and Joan C. Olson. 2005. Examination of the coordinate effects of *Pseudomonas aeruginosa* ExoS on Rac1. *Infection and Immunity* 73(9): 5458-5467.
6. **Claudia L. Rocha**, Jenifer Coburn, Elizabeth A. Rucks and Joan C. Olson. 2003. Characterization of *Pseudomonas aeruginosa* Exoenzyme S as a bifunctional enzyme in J774A.1 macrophages. *Infection and Immunity* 71(9): 5296-5305.
7. **Claudia L. Rocha** and Vincent A. Fischetti. 1999. Identification and characterization of a novel fibronectin-binding protein on the surface of Group A Streptococci. *Infection and Immunity* 67(6): 2720-2728.
8. **Claudia L. Rocha** and Vincent A. Fischetti. 1999. PFBP a novel *Streptococcus pyogenes* fibronectin-binding protein. *Streptococci and Streptococcal Diseases-Entering the New Millenium*. (Proceedings of the 14<sup>th</sup> Lancefield International Symposium on Streptococci and Streptococcal Diseases)
9. **Claudia L. Rocha** and Vincent A. Fischetti. 1997. Identification and characterization of a new protein from *Streptococcus pyogenes* having homology with fibronectin and fibrinogen binding proteins. *Streptococci and the Host. Advances in Experimental Medicine and Biology*. Vol. 418: 737-739. Edited by Thea Horaud, Anne Bouvet, Roland Leclercq, Henri de Montclos and Michel Sicard. Plenum Press. (Proceedings of the 13<sup>th</sup> Lancefield International Symposium on Streptococci and Streptococcal Diseases)
10. Silvia C. Leao, **Claudia L. Rocha**, Luis A. Murillo, Carlos A. Parra and Manuel E. Patarroyo. 1995. Expression in *E. coli* of a species-specific protein of *Mycobacterium tuberculosis* with sequence and functional similarity to bacterial phospholipase C. *Infection and Immunity* 63(11): 4301-4306.
11. Maria Victoria Valero, Luis Roberto Amador, Claudia Galindo, Jorge Figueroa, Mary Stella Bello, Luis Angel Murillo, Ana Lucia Mora, Gloria Patarroyo, **Claudia Lucia Rocha**, Mauricio Rojas, John Jairo Aponte, Luis Eduardo Sarmiento, Diana Lozada, Carlos Gustavo Coronell, Norella Ortega, Jaiver Rosas, Pedro Luis Alonso and Manuel Elkin Patarroyo. 1993. Vaccination with SPf66, a chemically synthesized vaccine, against *Plasmodium falciparum* malaria in Colombia. *The Lancet* 341: 705-710.
12. Roberto Amador, Alberto Moreno, Luis Murillo, Oscar Sierra, David Saavedra, Mauricio Rojas, Ana L. Mora, **Claudia L. Rocha**, Fernando Alvarado, Juan C. Falla, Mauricio Orozco, Carlos Coronell, Norella Ortega, Alberto Molano, Jose F. Velasquez, Victoria Valero, Lina Franco, Fanny Guzman, Luz M. Salazar, Fabiola Espejo, Elsa Mora, Rocio Farfan, Nohora Zapata, Jaiver Rosas, Julio C. Calvo, Jaime Castro, Teodulo Quinonez, Francisco J. Nunez and Manuel E. Patarroyo. 1992. Safety and immunogenicity of the synthetic malaria vaccine SPf66 in a large field trial. *The Journal of Infectious Diseases* 166: 139-144.

13. Gloria Patarroyo, Lina Franco, Roberto Amador, **Claudia L. Rocha**, Mauricio Rojas, Luis A. Murillo and Manuel E. Patarroyo. 1992.

A study of the safety and immunogenicity of the synthetic malaria vaccine in children aged 1-14 years. *Vaccine* 10(3): 175-178.

14. **Claudia L. Rocha**, Luis A. Murillo, Ana L. Mora, Mauricio Rojas, Lina Franco, Javier Cote, Victoria Valero, Alberto Moreno, Roberto Amador, Francisco Nunez, Carlos Coronell and Manuel E. Patarroyo. 1992.

Determination of the immunization schedule for field trials with the synthetic malaria vaccine SPf66. Concentration, adjuvants, number and interval of doses. *Parasite Immunology* 14: 95-109.

15. Roberto Amador, Alberto Moreno, Victoria Valero, Luis Murillo, Ana L. Mora, Mauricio Rojas, **Claudia L. Rocha**, Margarita Salcedo, Fanny Guzman, Fabiola Espejo, Francisco Nunez and Manuel E. Patarroyo. 1992.

The first field trial of the chemically synthesized malaria vaccine SPf66. Safety, immunogenicity and protectivity. *Vaccine* 10(3): 179-183.

16. Luis A. Murillo, **Claudia Lucia Rocha**, Ana Lucia Mora, Jorge Kalil, Ana Goldenberg and Manuel E. Patarroyo. 1991.

Molecular analysis of HLA-DR4B1 gene in malaria vaccinees. *Parasite Immunology* 13:201-210.

## **ABSTRACTS (Peer-reviewed)**

(\*Denotes Undergraduate Student; \*\*Denotes High School Student; #Denotes Graduate Student)

1. J.P Kinson, Parker Byrd, John DeStefano, Nicholas W Shugarts, **Claudia L. Rocha**, and Mary Katherine Zanin. "Different human cell lines exhibit different extranuclear localization of histone H3.1". Association of Southeastern Biologist 80<sup>th</sup> Meeting. Memphis, TN, April 3-6, 2019.

2. Dillon Graham\*, John DeStefano\*, **Claudia L. Rocha**, David M. Donnell, and Mary Katherine Zanin. "Post-translational modifications of Histone H3 in mitochondria of Human Jurkat cells and related stress relief studies". Association of Southeastern Biologist 79<sup>th</sup> Meeting. Myrtle Beach, SC, March 28-31, 2018.

3. Nicholas Shugarts\*, Mary Katherine Zanin, and **Claudia L. Rocha**. "Co-localization of Histone H3 with Cox-1 in a human cell line". Citadel Student Research Conference. The Citadel, March 23, 2018.

4. Mary Katherine Zanin, **Claudia L. Rocha**, David M. Donnell, and G. Dillon Graham\*. 2017. "Evidence supports claims that Histone H3 is present in mitochondria of diverse species". Association of Southeastern Biologist 78<sup>th</sup> Meeting, March 30, Montgomery, AL.

5. Gray Klosinski\*, Matthew Scalise\*, Daniel Hinson#, and **Claudia L. Rocha**. 2017. "Using metagenomics for the analysis of the salt marsh periwinkle microbiota". Citadel Student Research Conference. The Citadel, March 17, Charleston, SC.

6. Matthew C. Scalise\* and **Claudia L. Rocha**. 2016.  
"Use of BOXA1R primer and PCR to differentiate *Escherichia coli* isolates in the salt marsh periwinkle, *Littorina irrorata*, from human and non-human sources". ASM Microbe 2016. American Society for Microbiology General Meeting. June 16-20, Boston, MA.
7. Matthew C. Scalise\* and **Claudia L. Rocha**. 2016.  
"Use of BOXA1R primer and PCR to differentiate *Escherichia coli* isolates in the salt marsh periwinkle, *Littorina irrorata*, from human and non-human sources". South Carolina Branch of the American Society for Microbiology Spring Meeting. Medical University of South Carolina, April 9, Charleston, SC.
8. Matthew C. Scalise\* and **Claudia L. Rocha**. 2016.  
"Use of BOXA1R primer and PCR to differentiate *Escherichia coli* isolates in the salt marsh periwinkle, *Littorina irrorata*, from human and non-human sources". Citadel Student Research Conference. The Citadel, March 18, Charleston, SC.
9. Kevin Stewart\*, Leondis Cole\*, Jeremy McCarthen\*, **Claudia Rocha** and Paul Nolan. 2015.  
"Analyzing the microbiome of urohydrosis droppings from species *Cathartes aura* and *Coragyps atratus*". Citadel Student Research Conference. The Citadel, March 13, Charleston, SC.
10. Avery Poirier\*, Elizabeth Wollan\*, **Claudia L. Rocha** and Lisa Zuraw. 2015.  
"Investigation of color change in antimicrobial solutions containing Citrus Extract". Citadel Student Research Conference. The Citadel, March 13, Charleston, SC.
11. Carly B. Williams#, John E. Weinstein and **Claudia L. Rocha**. 2014.  
"Water Quality and fecal coliform levels in Georgia Oxbow lakes relative to connectivity with the Savannah River". Carolinas Regional Society of Environmental Toxicology and Chemistry, April 24-26. Clemson, SC.
12. Mariana Garcia-Torres\* and **Claudia L. Rocha**. 2014.  
"Analysis of antibiotic resistance profile of environmental *E. coli* strains to determine if of animal or human origin". Citadel Student Research Conference, March 14. The Citadel, Charleston, SC.
13. Andriana Love\*, Kyle Page\*, Zachary Ford\*, Lisa Zuraw, Kristy Johnson and **Claudia L. Rocha**. 2014.  
"Antibacterial properties of citrus extract". Citadel Student Research Conference, March 14. The Citadel, Charleston, SC.
14. Jamel L. Brown, Lance C. Braye\*, Winslow DiBona\*\*, John E. Weinstein and **Claudia L. Rocha**. 2013.  
"Use of salt marsh periwinkle, *Littorina irrorata*, as a model organism for the assessment of tidal creek health". American Society for Microbiology 113<sup>th</sup> General Meeting, May 18-21. Denver, CO.
15. Jamel L. Brown, Lance C. Braye\*, Winslow DiBona\*\*, John E. Weinstein and **Claudia L. Rocha**. 2013.  
"Use of salt marsh periwinkle, *Littorina irrorata*, as a model organism for the assessment of tidal creek health". American Society for Microbiology-South Carolina Branch Spring Meeting, April 20. Medical University of South Carolina, Charleston, SC.

16. Jamel L. Brown, Lance C. Braye\*, Winslow DiBona\*\*, John E. Weinstein and **Claudia L. Rocha**. 2013.  
"Use of salt marsh periwinkle, *Littorina irrorata*, as a model organism for the assessment of tidal creek health". Citadel Undergraduate Research Conference, March 8. The Citadel, Charleston, SC.
17. E. Hinkle\*, J.R. Tyrrell, P.M. Nolan and **C.L. Rocha**. 2011.  
"Who said all feces are bad feces?" Citadel Undergraduate Research Conference. The Citadel, March 18. Charleston, SC.
18. Brian Burnley\*, Hunter Matthews\*, Patrick Sullivan\*, **Claudia L Rocha** and David Donnell. 2011.  
A system for the expression and control of appetite regulation protein in *E. coli*. Citadel Undergraduate Research Conference. The Citadel, March 18. Charleston, SC.
19. Brian Burnley\*, Hunter Matthews\*, Patrick Sullivan\*, **Claudia L Rocha** and David Donnell. 2010.  
A system for the expression and control of appetite regulation protein in *E. coli*. International Genetic Engineered Machine (iGEM) Jamboree competition. November 6-8. MIT, Boston, MA.
20. Monika Gooz, **Claudia L. Rocha**, Bell, L. H., Gooz, P., Luttrell, L., Raymond, J.R. 2008.  
5-HT induces threonine (T735) phosphorylation of ADAM17/TACE cytoplasmic tail. FASEB Meeting. April 5-9. San Diego, CA.
21. **Claudia L. Rocha**, John R. Raymond and Monika Gooz. 2007.  
ADAM-17-dependent transactivation of EGFR by 5-HT<sub>2A</sub> is mediated by Src and PI3K in rat mesangial cells. Perry V. Halushka MUSC Student Research Day. November 2. Charleston, SC.
22. Monika Gooz, Pal Gooz, Waleed O. Twal, **Claudia L. Rocha**, John R. Raymond and Louis Luttrell. 2007.  
5-HT induces assembly of TACE/ $\beta$ 1 integrin complex and promotes coimmunoprecipitation of EGFR/ $\beta$ 3 integrin during 5-HT<sub>2A</sub> receptor-EGFR cross-talk. 3<sup>er</sup> ASPET GPCR Colloquium. April 27 and 28. Washington, DC.
23. **Claudia L. Rocha**, John R. Raymond and Monika Gooz. 2007.  
ADAM-17 dependent transactivation of EGFR by 5-HT<sub>2A</sub> is mediated by Src and PI3K in rat mesangial cells. Experimental Biology 2007. April 28-May 2. Washington, DC.
24. **Claudia L. Rocha** and Joan C. Olson. 2006.  
Effect of *P. aeruginosa* ExoS activity on Cdc42 in J774A.1 macrophages. 106<sup>th</sup> General Meeting. American Society for Microbiology. May 21-25. Orlando, FL.
25. Elizabeth A. Rucks, **Claudia L. Rocha** and Joan C. Olson. 2004.  
Cellular targeting of *Pseudomonas aeruginosa* ExoS to Rac1. 104<sup>th</sup> General Meeting. American Society for Microbiology. May 23-27. New Orleans, LA.
26. **Claudia L. Rocha**, Elizabeth A. Rucks and Joan C. Olson. 2003.  
Effects of *Pseudomonas aeruginosa* ExoS on human monocytic cell lines. 103<sup>th</sup> General Meeting. American Society for Microbiology. May 18-22. Washington, DC.



27. Elizabeth A. Rucks, **Claudia L. Rocha**, Deanne M. Greene, Timothy S. Vincent and Joan C. Olson. 2002.

Eukaryotic cell influence on the toxic effect of *Pseudomonas aeruginosa* exoenzyme S. Gordon Research conference: Microbial toxins and pathogenesis. Proctor Academy, Andover, New Hampshire.

28. **Claudia L. Rocha**, Elizabeth A. Rucks, Jennifer Coburn and Joan C. Olson. 2002.

Exoenzyme S GAP activity contributes to the antiphagocytic capacity of *P. aeruginosa*. 102<sup>th</sup> General Meeting. American Society for Microbiology. May 19-23. Salt Lake City, UT.

29. Jennifer E. Fraylick, Jeaninne R. La Rocque, **Claudia L. Rocha**, Dara W. Frank, Timothy S. Vincent and Joan C. Olson. 2001.

Independent and Coordinate effects of ExoS GAP and ADP-ribosyltransferase activities on epithelial cell function. 101<sup>th</sup> General Meeting. American Society for Microbiology. May 20-24. Orlando, FL.

30. **Claudia L. Rocha** and Vincent A. Fischetti. 2000.

Adhesion to and internalization of human pharyngeal cells by recombinant *Streptococcus gordonii* surface expressing different domains of the *S. pyogenes* fibronectin-binding protein PFBP. 100<sup>th</sup> General Meeting. American Society for Microbiology. May 21-25. Los Angeles, CA

31. **Claudia L. Rocha** and Vincent A. Fischetti. 1997.

SFFBP12, a new *Streptococcus pyogenes* surface protein: characterization and possible role in adherence. 97<sup>th</sup> General Meeting. American Society for Microbiology. May 4-8. Miami Beach, FL.

32. **Claudia L. Rocha** and Vincent A. Fischetti. 1996.

Identification and characterization of a new protein from *Streptococcus pyogenes* having homology with fibronectin and fibrinogen binding proteins. XIII<sup>th</sup> Lancefield International Symposium on Streptococci and Streptococcal Diseases. Sept. 16-20. Paris, France

## ORAL PRESENTATIONS

1. **Claudia L. Rocha** and Vincent A. Fischetti. 1999.

PFBP a novel *Streptococcus pyogenes* fibronectin-binding protein.

XIV<sup>th</sup> Lancefield International Symposium on Streptococci and Streptococcal Diseases.

Oct. 11-15. Auckland, New Zealand.

2. **Claudia L. Rocha**. 2010.

Bifunctional effects of *Pseudomonas aeruginosa* Exoenzyme S on macrophage function: Effects of Exoenzyme S activity on LMWG-proteins. The Citadel Sigma Xi brown-bag lunch presentation. Charleston, SC.

3. **Claudia L. Rocha**. 2011.

Microbial Pathogenesis: weapons and strategies. The 2011-2012 STEM Innovation Challenges Institute. The Citadel- July 11-15/2011. Charleston, SC.

## PATENTS

-Title: Fibronectin/fibrinogen binding protein from Group A Streptococci.

-Inventors: **Claudia L. Rocha** and Vincent A. Fischetti.

-Patent Number: 5,910.441 (6/8/99)

## GRANTS

### -Research Grants

1. The Citadel Foundation. New Faculty Research Grant. Effects of *P. aeruginosa* ExoS on the low molecular weight G proteins Rho and Cdc42 in murine macrophages-\$2250. PI-Claudia L. Rocha. July 01, 2009 to June 30, 2010.
2. The Citadel Foundation. Faculty Research Grant. Effects of *P. aeruginosa* ExoS on macrophage adherence-\$2100. PI-Claudia L. Rocha. July 01 2010 to June 30, 2011.
3. The Citadel Foundation. Faculty Research Grant. Effects of *P. aeruginosa* ExoS on macrophage morphology-\$3000. PI-Claudia L. Rocha. July 01, 2011 to June 30, 2012.
5. The Citadel Foundation. Faculty Research Grant. Effects of *P. aeruginosa* ExoS on Rho activation and macrophage adherence -\$3000. PI-Claudia L. Rocha. July 01, 2012 to June 30, 2013.
6. The Citadel Foundation. Faculty Research Grant. Effects of *P. aeruginosa* ExoS on Rho activation and subcellular localization-implications in macrophage adherence-\$3000.00. PI-Claudia L. Rocha. July 01, 2013 to June 30, 2014.
7. The Citadel Foundation. Faculty Research grant. Assessment of Tidal Creek environmental health using the salt marsh periwinkle, *Littorina irrorata*, as a model organism-\$2250.00. PI-Claudia L. Rocha. July 1, 2014 to June 30, 2015.
8. The Citadel Foundation. Faculty Research Grant. Molecular characterization of environmental *E. coli* strains isolated from the salt marsh periwinkle *Littorina irrorata*-\$3,000. PI-Claudia L. Rocha. July 1, 2015 to June 30, 2016.
9. The Citadel Foundation. Faculty Research Grant. Analysis of the microbiota of the salt marsh periwinkle *Littorina irrorata* using a metagenomic approach-\$3,000. PI-Claudia L. Rocha. July 1, 2016 to June 30, 2017.
10. The Citadel Foundation. Faculty Research Grant. Using metagenomics for the analysis of the microbiota of the salt marsh periwinkle *Littorina irrorata*-\$3,000.00. PI-Claudia L. Rocha. July 1, 2017 to June 30, 2018.
11. The Citadel Foundation. Faculty Research Grant. Localization of histone H3 in the mitochondria of cultured human cells using immunofluorescence-\$3000. PI-Claudia L. Rocha. July 1, 2018 to June 30, 2019.
12. The Citadel Foundation. Faculty Research Grant. Extranuclear localization of histone H3 in MCF-7 human epithelial cells-\$3,000. PI-Claudia L Rocha. July 1, 2019-June 30, 2020.

### -Development Grants

1. The Citadel Foundation. Faculty Development Grant. Attending iGEM competition at MIT. November 6-8, 2010-\$1356.00.

2. The Citadel Foundation. Faculty Development Grant. Attending the 19<sup>th</sup> Annual ASM Conference for Undergraduate Educators, and the 112<sup>th</sup> General Meeting of the American Society for Microbiology on June 14-19, 2012-\$2500.00.

3. The Citadel Foundation. Faculty Development Grant. Attending the 21<sup>st</sup> Annual ASM Conference for Undergraduate Educators, and the 114<sup>th</sup> General Meeting of the American Society for Microbiology on May 15-20, 2014-\$2500.00.

-Pre-conference Workshop: Analysis of microbiomes at the rRNA and whole-genome levels: how to bring it in the classroom. May 15, 2014.

4. The Citadel Foundation. Faculty Development Grant. To attend the ASM Microbe 2018 Meeting of the American Society for Microbiology in Atlanta, Georgia. June 7-11, 2018. Amount: \$1,892

#### -Presentation Grants

1. The Citadel Foundation. Faculty Development and Presentation Grant. "Use of BOXA1R Primer and PCR to differentiate Escherichia coli isolates in the Salt Marsh Periwinkle, *Littorina irrorata*, from human and non-human sources". Poster presentation at ASM Microbe 2016. American Society for Microbiology General Meeting. June 16-20, 2016, Boston, MA-\$1,405.00

2. The Citadel Foundation. Faculty Development and Presentation Grant. "Comparing extranuclear localization of histone h3 in two human cancer cell lines". Claudia L. Rocha, Parker Byrd, JP Kinson, John DeStefano, Nicholas Shugarts, and Mary Katherine Zanin. Poster presentations at 80<sup>th</sup> Annual meeting of Association of Southeastern Biologist. April 3-6, 2019, Memphis, TN-\$1,402

#### -External Funds

1. The Cross Human Performance LLC. Dr. Hank Cross. Antimicrobial effects of a citrus extract. Co-PI with Kristy Johnson and Lisa Zuraw. Fall 2013-Fall 2014.

#### -External Grants Submitted

-2018 SC INBRE Grant: "Analysis of the human gut microbiota and its implications in Traumatic Brain Injury"

#### -Other funding

-The Citadel Center for Climate Studies Grant: "Impact of nuisance flooding on Charleston coastal Waterways: are unwanted bacteria more prevalent in our backyards?" PI-Claudia L. Rocha-\$12,253. Nov. 2019-Dec. 2020.

## **SERVICE**

-To the College, School and Department

-To the College

#### **-Committees**

-Library. 2010-2015.

-Secretary 2011-2012.

-Chair 2012-2014.

-Communication across the curriculum (CAC). 2011-2012.

-Director of the Center for Teaching, Literature and Technology Search Committee. Fall 2016 and Spring 2017.

- Ad-Hoc Committee on Interdisciplinary Studies, Spring 2017
- Assistant Provost for Diversity, Equity and Inclusion Search Committee. Spring 2018.

### **-Campus Security Authority (CSA)**

- Since 2014.

### **-To the School and Department**

#### **-Service to the School**

- Internal Advisor for NSF ADVANCE IT Catalyst Grant. 2013-2017.
- Post-Tenure Review Committee for Dr. Saul Adelman. Spring 2014.
- Pre-Health Professions Committee (Summer 2017-Present).
- Research, Development and Presentation Grants Committee (Fall 2018-present).
- Nursing Faculty Probationary Reappointment Committee (2018-present).

#### **-Department Committees**

- Equipment, repair and purchase. Fall 2010, 2011-2016.
- Department Chair Search. Fall 2010.
- BIOL101/102 Curriculum Review. 2011-2012.
- CURE Committee. Fall 2013-Present.
- Instructor Position Search Committee. Fall 2014-Spring 2015.
- Skanchy Award Committee (Chair). Spring 2016.
- Visiting Teacher Scholar Position Search Committee. Spring 2016.
- Assistant Professor position Search Committee (Spring 2018).
- Research, Development and Presentation Grants Committee (Fall 2018-present).

#### **-Other service**

- Host. Pre-knob visits, 2010-2019.

### **-To the College and the Department.**

-Mention of The Citadel, Biology Department and former students in the book "RegenesiS" by Harvard Professor George Church and author Ed Regis (2012). The book explores the impact of Synthetic Biology in today's world. The Citadel is mentioned thanks to the 2010 iGEM team project which aimed at controlling human appetite by using synthetically engineered *E. coli* bacteria.

### **-To the Students**

#### **-Academic advisor**

- 20-25 students per academic year. Fall 2010-Present.

#### **-Faculty Advisor**

- Citadel iGEM Team. 2010.
- BioCid Club. 2010-Present.
- LDRS 411. Fall 2015, 2017.

#### **-Other service**

- Letters of recommendation to undergraduate and graduate students in support of their applications to Medical School, Dental School, Nursing School, Start of the West Summer International

Scholarship, Summer Undergraduate Internships and Graduate School. 2010-Present.

- Sponsored the participation of undergraduate students to:
  - Ernest E. Just Symposium. MUSC. Spring 2010 and 2011.
  - Meetings of the South Carolina Branch of the American society for Microbiology (SCBASM).
    - Spring 2013 and 2016.
    - Fall 2014 and 2015.
  - American Society for Microbiology 113<sup>th</sup> General Meeting, May 18-21. Denver, CO.
  - Microbes in Command Symposium. MUSC. October 18, 2013.
  - ASM Microbe 2016. American Society for Microbiology General Meeting. June 16-20. Boston, MA.
- Sponsored the participation of a graduate student to:
  - Fall meeting of the South Carolina Branch of the American society for Microbiology (SCBASM). USC. Fall 2011.
- Attended WISE (Women in Science and Engineering) meetings/breakfast. Fall 2009, 2013.

#### -To the Community

- Judge. Oral presentations, PhD. Perry V Halushka 2009 MUSC Student Research Day. November 6, 2009. Medical University of South Carolina. Charleston, SC.
- Co-Host. ALERT/STEM Initiative of the School of Science and Mathematics of The Citadel for elementary school students.
  - October 25<sup>th</sup>, 29<sup>th</sup> and November 1<sup>st</sup>, 2010. The Citadel. Charleston, SC.
  - April 20, 2012; October 15<sup>th</sup> and 18<sup>th</sup>, 2012. The Citadel. Charleston, SC.
- Participant. Science Night at The Citadel. "The Small World around us". Fall 2009, 2010, 2011 and 2012. The Citadel. Charleston, SC.
- Liaison. VA Research and Development's Subcommittee on Research Safety (SRS) and the Department of Biology at The Citadel. Responsible for the selection of a senior Biology Major student to serve as lay representative in the committee. 2010-Present.
- Organization and execution of Heroism/Leadership Day Activity: Bio-Cid and Pre-Health Society Lowcountry Shrimp Boil. Fall, 2011 and 2012. Proceedings of the activities were donated to the VA Hospital (2011) and the non-profit organization Wounded Nature (2012).
- Advisor. Fall 2009-Spring 2010. Winslow DiBona. Science Project. Academic Magnet High School. "Testing Marsh Periwinkles near the Plum Island Wastewater Treatment Plant". The Citadel. Charleston, SC.
- Instructor\*. Summer Review Course (CGS 650). MUSC. 2010 and 2011.
- Advisor. 2012. Sam Jones. Thesis: "Efficacy of Bacteriophages and Common Disinfectants to Kill *Escherichia coli* with Applications to *Salmonella*". Academic Magnet High School. The Citadel. Charleston, SC.
- Judge. Poster Presentations. Spring Meeting of the South Carolina ASM Branch. University of South Carolina at Aiken. April 14, 2012. Aiken, SC.

-Host for MUSC Teaching Internship students:

-Microbiology: Fall, 2009, 2010, 2012, 2013, 2014 and 2015. Spring, 2010 and 2012.

-Introduction to Biology Lab II: Spring 2013 and 2016.

-General Biology for Engineers Laboratory: Fall 2016.

-Member of PhD thesis committee of Mr. Jordon Gruber. Department of Biochemistry, MUSC. Fall 2012- Spring 2016.

- Judge. Oral Presentations. Fall Meeting of the South Carolina ASM Branch. Sandhill Research and Education Center-Lake House. Clemson University. November 15, 2014. Columbia, SC.

-External advisor. Post-Baccalaureate Program for underrepresented science students. College of Graduate Studies, MUSC. 2014.

-Judge. Poster Presentations. Spring Meeting of the South Carolina ASM Branch. Furman University. April 11, 2015. Greenville, SC.

- Judge. Oral Presentations. Fall Meeting of the South Carolina ASM Branch. University of South Carolina. October 24, 2015. Columbia, SC.

-Panelist. MUSC Annual Career Day. Medical University of South Carolina. November 12, 2015. Charleston, SC.

- Judge. Poster Presentations. Spring Meeting of the South Carolina ASM Branch. Medical University of South Carolina. April 9, 2016. Charleston, SC.

-Speaker. "Use of technology in my career" to students in 8<sup>th</sup> grade at the Charleston Catholic School on May 19, 2017. Charleston, SC.

-Judge. Poster Presentations. Spring Meeting of the South Carolina ASM Branch. Winthrop University. April 14, 2018. Rock Hill, SC.

#### -To the Discipline

-Member of the organizing committee for the South Carolina Branch American Society for Microbiology (SCBASM) meetings. Since 2012.

-President of the South Carolina Branch of the American Society for Microbiology (SCBASM). 2015-2017.

- Reviewer for the Georgia Journal of Science. May, 2017.

-External reviewer for the Tenure and Promotion process of Dr. Ginny Webb from USC Upstate. July 2019.

#### **PROFESSIONAL SOCIETIES AND GROUPS**

-American Society for Microbiology (ASM), member since 1997.

-American Society for Microbiology, South Carolina Branch (SCBASM), member since 2011.  
-Planning Committee, 2012-Present.  
-*President*, 2015-2017.

-Microbe Interest Group (MIG)-MUSC, 2013-2016.

-American Association for the Advancement of Science (AAAS), member since 2014.