Mustafa G. Mujtaba, Ph.D.

Assistant Professor of Microbiology and Immunology

Florida Gulf Coast University
Department of Biological Sciences
10501 FGCU Boulevard, South, Whitaker Hall, Room 117
Fort Myers, FL 33965-6565
Tel: (239) 590-7357 E-mail: mmujtaba@fgcu.edu

EDUCATION

1992—1995	Bachelor's of Science degree in Microbiology and Cell Science, May 1995, University of Florida, Department of Microbiology and Cell Science, Gainesville, Florida. Minor degree in Chemistry, May 1995, Department of Chemistry, University of Florida Gainesville, Florida.
1995—1999	Ph.D. in Microbiology/Immunology, August 1999, University of Florida, Department of Microbiology and Cell Science Gainesville, Florida.
1999—2002	Postdoctoral Research Fellow, Department of Anesthesiology, Harvard University, Harvard Medical School, Brigham and Women's Hospital, Boston, Massachusetts.

EMPLOYEMENT AND PROFESSIONAL EXPERIENCES

1995—1999	Teaching Instructor for General Microbiology Lab, Department of Microbiology and Cell Science, University of Florida.
1999—2002	Research Fellow, Harvard University, Brigham and Women's Hospital.
2001—2002	Recipient of NIH F32 Fellowship Grant # GM63361, Brigham and Women's Hospital, Harvard Medical School.
2002—2005	Started the biotech company, Immunokin Corporation, Gainesville, FL.
2002—2005	Assistant In Microbiology and Cell Science, University of Florida.
2005—2012	Graduate Faculty, College of Health Professions, Anesthesia Program, Florida Gulf Coast University, Fort Myers, FL.
2005—2010	Instructor In Chemistry, Level I, Florida Gulf Coast University, Fort Myers, FL
2009 – 2010	General Chemistry Coordinator, Department of Chemistry, Florida Gulf Coast University, Ft. Myers, FL.
2010—2011	Instructor In Chemistry, Level II, Department of Chemistry, Florida Gulf Coast University, Fort Myers, FL.
2011—Present	**Assistant Professor of Microbiology, Department of Biological Sciences, Florida Gulf Coast University, Fort Myers, FL.**

TEACHING EXPERIENCE

MCB 3020 Basic Biology of Microorganisms —University of Florida
MCB 2000 General Microbiology—University of Florida
MCB 2010 Microbiology with Lab—Florida Gulf Coast University
MCB 3020 General Microbiology with Lab—Florida Gulf Coast University
CHM 1045 General Chemistry I with Lab – Florida Gulf Coast University
CHM 1046L General Chemistry II Laboratory – Florida Gulf Coast University
BCH 3023C Biochemistry – Florida Gulf Coast University
PCB 3023C Cell Biology – Florida Gulf Coast University
NGR 6400 Chemistry and Physics for Nurse Anesthetists (graduate level) – FGCU
I developed this course for the Nurse Anesthesia program here at FGCU
ISC 3130 Scientific Process, FGCU
BSC 4900 Independent Research in Biology, FGCU
BSC 4905 Independent Research in Biotechnology, FGCU
BSC 4910 and BSC4911 Senior Project in Biology and Senior Project Presentation in Biology
PCB 4233C: Immunology (Lecture and Lab), FGCU

CURRENT RESEARCH INTERESTS

1. Determine how Staphylococcal enterotoxins can enhance the immune system and protect again viral infections.
2. Detection of Staphylococcal enterotoxins in foods using a rapid dipstick assay.
3. The use of combinatorial cytokines to inhibit the growth of cancer cells
4. Development of long acting local anesthetics and the study of voltage gated sodium channels in tissue culture
5. Detection of marine toxins using a novel voltage-gated sodium channel bioassay.

RESEARCH PUBLICATION

1. Mujtaba MG, Soos JM, Johnson HM. CD T suppressor cells mediate interferon tau protection against experimental allergic encephalomyelitis. *Journal of Neuroimmunology* 1997; 75:35-42.
2. Soos JM, Mujtaba MG, Subramaniam PS, Streit WJ, Johnson HM. Oral feeding of interferon τ can prevent the acute and chronic relapsing forms of experimental allergic encephalomyelitis. *Journal of Neuroimmunology* 1997; 75:43-50.
3. Mujtaba MG, Streit WJ, Johnson HM. IFN-τ suppresses both the autoreactive humoral and cellular immune responses and induces stable remission in mice with chronic experimental allergic encephalomyelitis. *Cellular immunology* 1998; 186:94-102.
4. Subramaniam PS, Mujtaba MG, Paddy MR, Johnson HM. The carboxy terminus of interferon-γ contains a functional polybasic nuclear localization sequence. *The Journal of Biological Chemistry* 1999; 274(1):403-407.
5. Mujtaba MG and Johnson HM. IFNτ inhibits IgE production in a murine model of allergy and in a IgE-producing human myeloma cell line. *The Journal of Allergy and Clinical Immunology* 1999; 104(5):1037-1044.
6. Subramaniam PS, Larkin III J, Mujtaba MG, and Johnson HM. The COOH-terminal nuclear localization sequence of interferon γ regulates STAT1α nuclear translocation at an intracellular site. *Journal of Cell Science* 2000; 113(15): 2771-2781.

7. Gerner PG, Mujtaba MG, Sinnott CJ, and Wang GK. Amitriptyline versus bupivacaine in rat sciatic nerve blockade. *Anesthesiology* 2001; 94(4):661-667.
8. Mujtaba MG, Gerner PG, and Wang GK. Local anesthetic properties of prenylamine. *Anesthesiology* 2001; 95:1198-1204.
9. Soos JM, Mujtaba MG, Schiffenbauer J, Torres BA, and Johnson HM. Intramolecular epitope spreading induced by staphylococcal enterotoxin superantigen reactivation of experimental allergic encephalomyelitis. *Journal of Neuoimmunology* 2002; 123:30-34.
10. Torres BA, Perrin GQ, Mujtaba MG, Subramaniam PS, Anderson A, Johnson HM. Superantigen enhancement of specific immunity: antibody production and signaling pathways. *Journal of Immunology* 2002; 169(6):2907-14.
11. Mujtaba MG, Wang S-Y, and Wang GK. Prenylamine block of Nav1.5 channel is mediated via a receptor distict from that of local anesthetics. *Molecular Pharmacology* 2002; 62(2):415-22.
12. Gerner PG, Mujtaba MG, Khan M, Sudoh Y, Vlassakov K, Anthony DC, and Wang GK. N-Phenylethyl Amitriptyline in Rat Sciatic Nerve Blockade. *Anesthesiology* 2002; 96(6):1435-42.
13. Gerner P, Haderer AE, Mujtaba MG, Sudoh Y, Narang S, Abdi S, Srinivasa V, Pertl C, Kuo Wang G. Assessment of Differential Blockade by Amitriptyline and Its N-Methyl Derivative in Different Species by Different Routes. *Anesthesiology* 2003 98(6):1484-1490.
14. Ahmed CMI, Burkhart MA, Mujtaba MG, Subramaniam PS, Johnson HM. The role of IFNγ nuclear localization sequence in intracellular function. *J cell Science* 2003: 116:8089-8098.
15. Flowers LO, Johnson HM, Mujtaba MG, Ellis MR, Haider SMI, and Subramaniam PS. (2004) Characterization of a peptide inhibitor of JAK2 that mimics SOCS-1 function. *J. Immunology.* 15;172(12):7510-8.
16. Ahmed CMI, M Burkhart, Mujtaba MG, PS Subramaniam, and HM Johnson. Peptide mimetics of gamma interferon possess antiviral activities against vaccinia and other viruses in the presence of poxvirus B8R protein. *J. Virology* 2005, 79(9):5632-9.
17. Mujtaba MG, Flowers L, Patel C, Patel R, Haider M, and Johnson HM. Treatment of mice with the Supressor of cytokine signaling peptide 1, Tyrosine kinase inhibitor peptide, prevents development of the acute form of experimental allergic encephalomyelitis and induces stable remission in the chronic relapsing/remitting form. *Journal of Immunology* 2005, 175:5077-5068.
18. Mujtaba MG, Patel CB, Patel RA, Flowers LO, Burkhart MA, Waiboci LW, Martin J, Haider MI, Ahmed CM, Johnson HM. The gamma interferon (IFN-γ) mimetic peptide IFN-gamma (95-133) prevents encephalomyocarditis virus infection both in tissue culture and in mice. *Clin. Vaccine Immunol*. 2006, 13(8):944-52.
19. Waiboci LW, Ahmed CM, Mujtaba MG, Flowers LO, Martin JP, Haider MI, Johnson HM. Both the suppressor of cytokine signaling 1 (SOCS-1) kinase inhibitory region and SOCS-1 mimetic bind to JAK2 autophosphorylation site: implications for the development of a SOCS-1 antagonist. *J Immunol*. 2007, 178(8):5058-68.
20. Mujtaba BG, Scharff MM, Cavico FJ, and Mujtaba MG. Challenges and Joys of Earning a Doctorate Degree: Overcoming the "ABD" Phenomenon. *Research in Higher Education Journal* 2008, 1:9-26.
21. Charles W Gunnels IV, Derek Buzasi, Mary Kay Cassani, James Douglass, Edwin M. Everham III, Anne Hartley, John Herman, Mustafa Mujtaba, Joanne Muller, Antoine Nicolas, Larry Southard, Serge Thomas, and Nora E Demers. "Engaging students in ethical

considerations of the scientific process through a simulated funding panel." *CUR Quarterly* 2015, 36(1).

22. Mujtaba MG, and Parrish J. "Antiviral inducing properties of staphylococcal enterotoxin mimetic peptides (Abstract, VAC9P.1065)". *J Immunol* 2015, Volume 194:145.5.
23. Mujtaba MG, "Development of interferon mimetic peptides having antiviral activity (Abstract)." *J Immunol* 2016, Volume 196 (1 Supplement) 217.36.
24. Mujtaba MG and Johnson HM, "Enhancement of interferon and antiviral activities by Staphylococcal enterotoxin superantigens and their mimetic peptides in vitro and in vivo." *European Journal of Immunology* 2016, Volume 46, Suppl. 1. (Abstract 693).
25. Mujtaba MG. Interactive Teaching Strategies for a Combined Lecture and Lab Microbiology Course (ASMCUE conference July 2017) *Journal of Microbiology and Biology Education* 2017, Volume 17, 98-99 (Abstract 18B).

Current manuscript in press, submitted, or in preparation

1. Mujtaba MG, Johnson HM, and Parrish J. "Staphylococcal enterotoxin superantigens induce prophylactic antiviral activity against encephalomyocarditis virus in vivo and in vitro." [Manuscript accepted] *Viral Immunology, [in-press], 2021*.

2. Mujtaba MG, Baliban T, Bhagu J, Herrera M. "A Laboratory exercise simulating antibody and antigen reactions of the Ouchterlony double immunodiffusion assay using inorganic salts." Manuscript submitted to the Journal *of Microbiology and Biology Education* [Under Review], 2021
3. Essaghir I, Fletcher-Williams D, and Mujtaba MG. Antibiotic activity of mimetic peptides of various cytokines and their receptors. In preparation for FGCU's *Aquila* journal.
4. Bilokopytova K, Simontchik M, and Mujtaba MG. Effectiveness of Various Electric Toothbrushes in Mechanical Removal of Plaque. In preparation for FGCU's *Aquila* journal.

MEETINGS AND PRESENTATIONS

1. Mujtaba MG, Soos JM, and Johnson HM. CD4 T cells mediate interferon tau protection against experimental allergic encephalomyelitis. FASEB Journal 10. New Orleans 1996 Meeting.
2. Mujtaba MG, Streit WJ, and Johnson HM. IFN-τ suppresses both the autoreactive humoral and cellular immune responses and induces stable remission in mice with chronic experimental allergic encephalomyelitis. FASEB Journal 12. San Francisco 1998 Meeting.
3. Subramaniam PS, Mujtaba MG, Paddy MR, and Johnson HM. The C--terminus of interferon-γ contains a functional polybasic nuclear localization sequence. FASEB Journal 12. San Francisco 1998 Meeting.
4. Mujtaba MG and Johnson HM. IFNτ inhibits IgE production in a murine model of allergy and in a IgE-producing human myeloma cell line. FASEB Journal 13. Washington DC 1999 Meeting.
5. Subramaniam PS, Larkin III J, Mujtaba MG, and Johnson HM. IFNγ-induced nuclear translocation of STAT1α is dependent on the presence of a nuclear localization sequence in the C-terminus of IFNγ. Washington DC FASEB 1999 Meeting.
6. Mujtaba MG. Clicker cell phone technology in the classroom. Whitaker Center Stem Education Seminar Series. November 25, 2008. Florida Gulf Coast University.

7. Mujtaba MG. Superantigens, the good, the bad, and the ugly. Biology Department Seminar presentation, Florida Gulf Coast University. February 24, 2009.
8. Mujtaba MG. Development of a Cell Phone Response System for the Classroom. FGCU Research Day, April 2008.
9. Mujtaba MG. Cell phone clicker system for the classroom. Academy of Business Disciplines, Fort Myers, FL 2009 meeting.
10. Mujtaba MG. Local anesthetic properties of fendiline. FGCU Research Day, April 2009.
11. Mujtaba MG. FGCU Cell Phone clicker technology in the classroom presentations at the High Tech Expo, Future Florida Forum in Orlando, FL. October 12, 2010
12. Parrish J. and Mujtaba MG. Induction of Interferon-gamma Production in Human Peripheral Mononuclear Cells by Superantigen Mimetic Peptides. FGCU Research Day, April 2010
13. Mujtaba MG, Parrish J., Patel C., and Johnson HM. Antiviral Inducing Properties of Superantigens. FGCU Research Day, April 2010
14. Garrott B. and Mujtaba MG. Examination of bupivacaine's local anesthetic activity resulting from interaction with non-steroidal anti-inflammatory drugs (NSAIDs). FGCU Research Day, April 2011.
15. Stanberry O., Simpson T, and Mujtaba MG. Optimal Concentration of Capture, Primary, and Secondary Antibodies for the Detection of Staphylococcal Enterotoxin A (SEA) for the Development of a Dipstick Assay. FGCU Research Day, April 2011.
16. Mujtaba MG, Stanberry O., and Simpson T. Development of a rapid detection assay for Staphylococcal enterotoxins that cause food poisoning. FGCU Research Day, April 2011.
17. Simpson T. and Mujtaba MG. Growth Inhibition of a Cervical Cancer Cell Line (HeLa) Using Combinatorial Cytokine Activation of Peripheral Blood Mononuclear Cells. FGCU Research Day, April 2011.
18. Dunchyk A, Halitaj J, and Mujtaba MG. Evaluation of compounds with hydrophobic moieties for voltage-gated sodium channel blocking activity. FGCU Research Day, April 2012.
19. Halitaj J and Mujtaba MG. Local anesthetic properties of various sodium channel blockers. FGCU Research Day, April 2012.
20. Karandrea S and Mujtaba MG. The Effect of Insulin on Neuronal Cells Exposed to Hyperglycemic Conditions in Vitro. FGCU Research Day, April 2012.
21. Orlov V and Mujtaba MG. Induction of cellular cytotoxicity via UV irradiation in cervical cancer & neuronal cells. FGCU Research Day, April 2012.
22. Mujtaba MG. Enhancement of student learning using the cell phone-based clicker system developed at Florida Gulf Coast University. FGCU Research Day, April 2012.
23. Dunn J, Forster N., Simon-Jorge O., and Mujtaba MG. Identification and optimal growth requirements of Southwest Florida's polycyclic aromatic hydrocarbon degrading microbes. Undergraduate Research Conference at the University of Florida, February 2013.
24. Olga Zambrano and Mujtaba MG "Development of peptides having interferon and antiviral inducing properties." FGCU Research Day, April 2013.
25. Dunn J, Forster N., Simon-Jorge O., and Mujtaba MG. "Identification and optimal growth requirements of Southwest Florida's polycyclic aromatic hydrocarbon degrading microbes". FGCU Research Day, April 2013.
26. Amalio Montez, Odelsis Barrero, Eddy Ramos and Mujtaba MG. "The Local Anesthetic Effects of Sulfur Containing Compounds." . FGCU Research Day, April 2013.
27. Katy Wing, Lauren Graham, Alissa Brown, and Mujtaba MG. "Effects of Co-Substrates and Oil Type on Pseudomonas Oil Degradation." . FGCU Research Day, April 2013.
28. Akshay Kshetrapal, Dailiana Poveda, Jasira Barrientos and Mujtaba MG. "Cellular Effects of Tricyclic Antidepressants on Cervical & Neuronal Cells." . FGCU Research Day, April 2013.

29. Andrea Lizarazo, Victoria Chase, Ryan Rodriguez, and Mujtaba MG. "The effect of tricyclic antidepressants on interferon/antiviral activity in HeLa cells infected with Vesicular Stomatitis Virus." . FGCU Research Day, April 2013.
30. Brandi Rider and Mujtaba MG. "Identification and optimal growth of oil degrading microbes in Southwest Florida." . FGCU Research Day, April 2013.
31. Caitlin Pine, Sami Corlew, and Laine Crow, and Mujtaba MG. "The Effect of Benadryl on Local Anesthetics in Mouse Neuronal Cells." FGCU Research Day, April 2013.
32. Gunnels CW, Mujtaba M, Everham EM, Bovard B, Cassani MK, Demers N, Douglas J, Fugate D, Green D, Griffis J, Hartley A, Herman J, Muller JA, Rumbold D, Thomas S, Volety A (2013) Funding Panel Simulation in The Scientific Process course. Pre-ISSOTL Conference CUR Symposium. Rayleigh, NC (Poster).
33. Barbosa A, Gardiner M, and Mujtaba MG. "Development of a voltage-gated sodium channel bioassay utilizing a synthetic lipid bilayer membrane." FGCU Research Day, April 2014.
34. Dunn M, and Mujtaba MG. "Development of a voltage-gated sodium channel bioassay utilizing a synthetic lipid bilayer membrane." FGCU Research Day, April 2015.
35. Tsovolos D, and Mujtaba MG. "The effect of weather conditions on the distribution of fungal spores at Florida Gulf Coast University." FGCU Research Day, April 2015.
36. Mujtaba MG, and Parrish J. "Antiviral inducing properties of staphylococcal enterotoxin mimetic peptides (VAC9P.1065)" American Association of Immunologists Meeting, New Orleans, May 10, 2015. *J Immunol* 2015 194:145.5.
37. Nino Mtchedlidze, Diego Sunino and Mustafa Mujtaba. "Producing optimal patch-clamp pipettes using the Sutter P-30 pipette puller." FGCU Research Day, April 8, 2016.
38. Mujtaba MG, and Zambrano O. " Development of interferon mimetic peptides having antiviral activity" American Association of Immunologists Meeting, Seattle, Washington, May 16, 2016.
39. Mujtaba MG and Johnson HM, "Enhancement of interferon and antiviral activities by Staphylococcal enterotoxin superantigens and their mimetic peptides in vitro and in vivo." International Congress of Immunology 2016 meeting, Melbourne, Australia (August 21--26).
40. Diego Sunino, Nino Mtchedlidze, and Mustafa Mujtaba. "Development of optimal borosilicate micropipettes for use in a patch-clamp apparatus for recording voltage-gated ion channel electrical currents." CAS Research Symposium, December 2016.
41. Freddy Valez, Lilly Dempsey, and Mustafa Mujtaba. "Evaluation of lysosome's inhibitory activity on various Gram positive bacteria." FGCU Research Day, April 18, 2017.
42. Mujtaba MG. Interactive Teaching Strategies for a Combined Lecture and Lab Microbiology Course (ASMCUE conference July 2017) *Journal of Microbiology and Biology Education*. 2017, Volume 17, 98-99.
43. Payton Eberling, Mary Walsh, Stephanie Moratto, and Mustafa Mujtaba. "Antibacterial activity of various herbal compounds on Gram positive and Gram negative bacteria." FGCU Research Day, April 17, 2018.
44. Lisandra Almarales, Asma Saheed and Mustafa Mujtaba. "Assessment of the antiviral activity of various natural plant compounds on vesicular stomatitis virus infected animal cells." FGCU Research Day, April 17, 2018.
45. Phillip Goldszlager, Craig Connolly and Mustafa Mujtaba. "Evaluation of Nitrate Reduction in laboratory stains of Pseudomonas aeruginosa and Escherichia coli." FGCU Research Day, April 17, 2018.

46. Davane Hall, Dacia Drummond, Maiya Madden and Mustafa Mujtaba. "Modulation of Escherichia coli infection in murine L929 cell cultures by T4 bacteriophages." FGCU Research Day, April 17, 2018.
47. Manal Bounif, Andrew Winters and Mustafa Mujtaba. "Evaluation of dosage and biofilm formation on the induction of antibiotic resistant in bacteria." FGCU Research Day, April 17, 2018.
48. Jamini Bhagu, Tara Baliban, Michael Herrera and Mustafa Mujtaba. "Use of Inorganic Compounds to Simulate Antigen-Antibody Reactions of the Ouchterlony Double Immunodiffusion Assay." FGCU Research Day, April 17, 2018.
49. Mujtaba MG and Simpson TR. "Direct and indirect effects of various cytokine pretreatment of human peripheral blood mononuclear cells on the proliferation of cervical cancer cells in coculture" (Control No. 2018-A-235-ECI). 5th European Congress of Immunology (ECI 2018) in Amsterdam, The Netherlands,
50. Mujtaba MG, Jamini Bhagu, Michael Herrera, and Tara Baliban. "Simulating Antibody and Antigen Reactions of the Ouchterlony Double Immunodiffusion Assay Using Inorganic Compounds." (Control/Tracking number 2019-A-5687) Microbe 2019 Conference, San Francisco, CA. June 20-24, 2019.
51. Cassidy Charles, Rafaela Paez, and Mustafa Mujtaba. "The Effect of Various Antibiotics on TNF-α Treated Mouse L929 Fibroblast Cells." FGCU Research Day, April 11, 2019.
52. Larenz Dixon, Iván Jiménez, and Mustafa Mujtaba. "Optimal Transformation of the Green Florescence Protein Plasmid into *Escherichia coli*." STEM Undergraduate Research and Internship Symposium, December 6, 2019.
53. Kayla Howard, and Mustafa Mujtaba. "The Effect of Bacterial Contamination of Sterile and Non-Sterile Soils on the Germination of Tomatoes and Available Soil Nutrients." STEM Undergraduate Research and Internship Symposium, December 6, 2019.
54. Gabriela Gomez, and Mustafa Mujtaba. "Antibacterial Activity of Various Southwest Florida Weeds." STEM Undergraduate Research and Internship Symposium, December 6, 2019.
55. Analise Dilorio, Kelby Violette, and Mustafa Mujtaba. "Induction of Cellular Cytotoxicity via UV Irradiation in GH3 and L-cells." STEM Undergraduate Research and Internship Symposium, December 6, 2019.
56. Samuel Persichilli, Alice Trescott, and Mustafa Mujtaba. "Improvement of Ethanol Fermentation by *Saccharomyces cerevisiae* Yeast Through Evolutionary Engineering and Mutagenesis." STEM Undergraduate Research and Internship Symposium, December 6, 2019.
57. Wislet Joseph and Mustafa Mujtaba. "Development of Peptides Having Interferon and Antiviral Properties." Seidler Research Showcase, January 29, 2020.
58. Ibtissam Essaghir, Danielle Fletcher-Williams, and Mustafa Mujtaba. Antibiotic activity of mimetic peptides of various cytokines and their receptors. FGCU Research Day (April 17, 2020 by Zoom Conferencing).
59. Kristina Bilokopytova, Michelle Simontchik, and Mustafa Mujtaba. Effectiveness of Various Electric Toothbrushes in Mechanical Removal of Plaque. FGCU STEM Undergraduate Research and Internship Symposium (Zoom Conference), December 4, 2020.

RESEARCH SUPPORT

Completed

Date Year	Source	Funding Grant Number, title	Principal Investigator	Institution
2000-2002	NIH	1F32-GM63361 "Local anesthetic properties of Ca blockers"	Mustafa Mujtaba	Harvard University. Brigham & Women's Hosp. Harvard University

2007—2008 FGCU, Professional Development Grant for $760.00

2008—2009 FGCU, ORSP "Development of long acting local anesthetics" for $5,000

2009 – 2010 FGCU, ORSP "Antiviral inducing properties of superantigen peptide mimetics" for $5,000

2011 – 2012 FGCU, ORSP "Development of a rapid dipstick assay for enterotoxins" for $5,000

2012 – 2013 FGCU, ORSP "Identification and optimal growth requirements of Southwest Florida's oil-eating microbes" for $5,000

2013 – 2014 FGCU, Office of Research and Graduate Studies, "Biosensor assay development for the rapid detection of marine biotoxins" for $15,000.

2017 – 2018 FGCU, Professional Development Grant for research on enhancing classroom clicker smartphones software, $1,275.

2019 – 2020 FGCU, Seidler Student/Faculty Collaboration Fellowship. "Antiviral properties of short mimetic peptides." $9,880.

2019 – 2020 FGCU, Scholarship-Research Venture Capital Fund Award, "Local anesthetics and marine biotoxins development using patch-clamp apparatus. $23,025.

Current Grants

2020 – 2021 FGCU, Brodie Foundation Life Sciences Scholarship. "Antiviral, antibacterial and antifungal properties of short cytokine mimetic peptides. $10,000.

2020 – 2021 FGCU, Seidler Student/Faculty Collaboration Fellowship. "The antifungal properties of short cytokine mimetic and cationic peptides." $8,500.

MENTORED STUDENT PROJECTS at FGCU (student name, years mentored, project title)

1. Jordan Parrish. 2009 – 2010: "Induction of Interferon-gamma Production in Human Peripheral Mononuclear Cells by Superantigen Mimetic Peptides."
2. Benjamin Garrott. 2010 – 2011: "Examination of bupivacaine's local anesthetic activity resulting from interaction with non-steroidal anti-inflammatory drugs (NSAIDs)."
3. Othniel Stanberry. 2010 – 2011: "Optimal Concentration of Capture, Primary, and Secondary Antibodies for the Detection of Staphylococcal Enterotoxin A (SEA) for the Development of a Dipstick Assay." **FGCU Research Day College of Arts and Science Student Award.**
4. Thomas Simpson. 2010 – 2011: "Growth Inhibition of a Cervical Cancer Cell Line (HeLa) Using Combinatorial Cytokine Activation of Peripheral Blood Mononuclear Cells."

5. Alesia Dunchyk. 2011 – 2012: "Evaluation of compounds with hydrophobic moieties for voltage-gated sodium channel blocking activity."
6. Julian Halitaj. 2011 – 2012: "Local anesthetic properties of various sodium channel blockers."
7. Shpetim Karandrea. 2011 – 2012: "Glucose and sucrose utilization of neuronal cells."
8. Vladimir Orlov. 2011 – 2012: "Toxicity of short and long wavelength ultraviolet light on cervical cancer cells."
9. Olga Zambrano. 2011 – 2013: "Evaluation of staphylococcal enterotoxin A (SEA) peptides for toxicity activity on cervical cancer cells."
10. Jonathan Dunn 2012 – 2013: "Antibacterial activity of peptides on Gram positive and Gram negative cells."
11. Jonathan Dunn, Oscar Simon-Jorge, and Nicholas Forster. 2012 – 2013: "Identification of microbes that degrade naphthalene in Southwest Florida soils."
12. Amalio Montez, Odelsis Barrero, and Eddy Ramos. 2012 – 2013: "Local anesthetic properties of sulfur containing compouds."
13. Katy Wing, Lauren Graham, Alissa Brown. 2012 – 2013: "Effects of Co-Substrates and Oil Type on Pseudomonas Oil Degradation."
14. Akshay Kshetrapal, Dailiana Poveda, and Jasira Barrientos. 2012 – 2013. "Cellular Effects of tricyclic antidepressants on Cervical and Neuronal Cells."
15. Andrea Lizarazo, Victoria Chase, and Ryan Rodriguez. 2012 – 2013 "The Effect of Tricyclic Antidepressants on Interferon/antiviral activity."
16. Brandi Rider. 2012 – 2013: "The optimal growth of oil degrading microbes in southwest Florida."
17. Caitlin Pine, Sami Corlew, and Laine Crow. 2012 – 2013: "Effects of Benadryl on Anesthetics in tissue culture."
18. Jason Hoop. 2013 – 2014: TNF-alpha assay using HeLa cells. FGCU Honor Research in Cell Biology (Fall 2013).
19. Ana Barbosa and Meghann Gardiner. 2013 – 2014: "Development of a voltage-gated sodium channel bioassay utilizing a synthetic lipid bilayer membrane"
20. Melissa Dunn. 2014 – 2015: "Development of a voltage-gated sodium channel bioassay utilizing a synthetic lipid bilayer membrane."
21. Dimitrios Tsovolos, 2014 – 2015: "The effect of weather conditions on the distribution of fungal spores at Florida Gulf Coast University."
22. Diego Sunino and Nino Mtchedlidze. 2015 – 2016: "Setup and testing of a patch-clamp apparatus for electrophysiological experiments"
23. Freddy Valez and Lilly Dempsey. 2016 – 2017. "Evaluation of lysosome's inhibitory activity on various Gram positive bacteria."
24. Elliot White. 2017 – 2017. "Development of a synthetic antigen/antibody Immunodiffusion assay for Immunology Lab." Honors Research in Immunology.
25. Payton Eberling, Mary Walsh, Stephanie Moratto. 2017-2018. "Antibacterial activity of various herbal compounds on Gram positive and Gram negative bacteria."
26. Lisandra Almarales, Asma Saheed. 2017-2018. "Assessment of the antiviral activity of various natural plant compounds on vesicular stomatitis virus infected animal cells."
27. Phillip Goldszlager, Craig Connolly. 2017-2018. "Evaluation of Nitrate Reduction in laboratory stains of Pseudomonas aeruginosa and Escherichia coli."
28. Davane Hall, Dacia Drummond, Maiya Madden. 2017-2018: "Modulation of Escherichia coli infection in murine L929 cell cultures by T4 bacteriophages." **FGCU Research Day Overall Best Poster Award.**

29. Manal Bounif, Andrew Winters. 2017-2018. "Evaluation of dosage and biofilm formation on the induction of antibiotic resistant in bacteria."
30. Jamini Bhagu, Tara Baliban, Michael Herrera. 2017-2018: "Use of Inorganic Compounds to Simulate Antigen-Antibody Reactions of the Ouchterlony Double Immunodiffusion Assay."
31. Cassidy Charles, Rafaela Paez. 2019. "The Effect of Various Antibiotics on TNF-α Treated Mouse L929 Fibroblast Cells."
32. Larenz Dixon, Iván Jiménez. 2019. "Optimal Transformation of the Green Florescence Protein Plasmid into *Escherichia coli*
33. Kayla Howard. 2019. "The Effect of Bacterial Contamination of Sterile and Non-Sterile Soils on the Germination of Tomatoes and Available Soil Nutrients."
34. Gabriela Gomez. 2019. "Antibacterial Activity of Various Southwest Florida Weeds."
35. Analise Dilorio, Kelby Violette. 2019. "Induction of Cellular Cytotoxicity via UV Irradiation in GH3 and L-cells."
36. Samuel Persichilli, Alice Trescott. 2019. "Improvement of Ethanol Fermentation by *Saccharomyces cerevisiae* Yeast Through Evolutionary Engineering and Mutagenesis."
37. Wislet Joseph. 2019-2020. "Development of Peptides Having Interferon and Antiviral Properties."
38. Kristina Bilokopytova and Michelle Simontchik. 2020 - 2020. Effectiveness of Various Electric Toothbrushes in Mechanical Removal of Plaque
39. Ibtissam Essaghir, Danielle Fletcher-Williams. 2020-2020. Antibiotic activity of mimetic peptides of various cytokines and their receptors.

Professional Organizations

American Chemical Society (ACS) 2009 – 2010
American Society for Microbiology (ASM) 2009 – present
Advisory and Editorial Board member for GIDA " The Food Journal" 2007 – present
The American Association of Immunologist 2014 – present
Florida Chapter of the American Society for Microbiology (FLASM) 2009 - present

Patents

1. Patent # 6,083,919: Johnson HM, **Mujtaba MG,** Soos JM; Materials and methods for treating autoimmune disease. July 04, 2000. (University of Florida)
2. Patent # 6,403,562: Johnson HM, **Mujtaba MG**, Soos JM; Materials and methods for treating autoimmune disease. June 11, 2002. (University of Florida)
3. Patent # 7,189,694: Johnson; Howard M. Subramaniam Prem S., **Mujtaba Mustafa G**., Flowers Lawrence. Inhibitors of autophosphorylation protein kinases. March 13, 2007. (University of Florida)
4. Johnson HM, **Mujtaba MG**. Materials and methods for inhibition of IgE production (pending, USA application #20060257364). (University of Florida)
5. Johnson HM, **Mujtaba MG**. Materials and methods for inhibition of IgE production (pending, USA application #20040131589). (University of Florida)
6. **Mujtaba MG**. Participant Polling and Response System. (USA application #20090241033) . (Florida Gulf Coast University)

PROFESSIONAL HONORS AND AWARDS

1999—2002	Research Fellow, Harvard University, Brigham and Women's Hospital.
2001—2002	Recipient of NIH F32 Fellowship Grant # GM63361, Brigham and Women's Hospital, Harvard Medical School.
2008 – Present	Advisory Board Member for the *GIDA* journal (food science and technology journal)
2008—2008	Research Day Faculty Award for development of the Cell Phone Response "Clicker" program for the classroom, Florida Gulf Coast University.
2008 – 2008	Patent application filed for "Cell Phone Clickers", FGCU
2009 – 2011	General Chemistry Coordinator, Florida Gulf Coast University, Ft. Myers, FL.
2010—2010	Promotion from Level I to Level II Instructor In Chemistry, Florida Gulf Coast University, Fort Myers, FL.
2010—2010	Overall Winner of the Faculty Category for Research Day for the poster titled, "Antiviral inducing properties of superantigens." Florida Gulf Coast University.
2011—2011	Five year faculty service award at FGCU
2015 – 2015	Early Career Faculty Travel Grant from American Association of Immunologists ($1200) to present research data at Immunology 2015 meeting in New Orleans, Louisiana (May, 2015).
2014 – 2015	Elected as an Alternate Faculty Senator, Florida Gulf Coast University.
2015 – 2015	Lucas Center for Faculty Development Workshop on AETS Classroom Technology Certificate of Participation
2016 – 2016	Ten year faculty service award at FGCU
2016 – 2016	Travel Grant Award from American Association of Immunologists ($1250) to present research data at Immunology 2016 meeting in Seattle, Washington (May, 2016).
2016 – 2016	Travel Grant Award from American Association of Immunologists ($2500) to present research data at International Congress of Immunology 2016 meeting in Melbourne, Australia (August, 2016).
2017 – 2017	Travel grant Award from FGCU Lucas Center ($500) to attend ASMCUE meeting in Denver, Colorado (July 2017)
2017 – 2017	Travel grant Award from the American Society for Microbiology ($750) to attend and present research data at ASMCUE meeting in Denver, Colorado (July 2017)
2017 – 2018	Awarded FGCU Professional Development Fund Grant for enhancing clickers for smartphones ($1,275)
2018 – 2019	Awarded FGCU Professional Development Enhancement award for presenting research European Congress of Immunology (ECI 2018) Conference
2019 – 2019	Awarded FGCU Professional Development Fund Grant for presenting research at Microbe 2019 Conference in San Francisco, CA.
2020 – 2020	Fifteen years faculty service award at FGCU