

Academic Curriculum Vitae



Personal Information:

Full Name: Zana Rafiq Majeed
Academic Title: Assistant Professor
Email: zana.majeed@su.edu.krd
Mobile: +964 (0) 750 231 9765



Education

1. Department of Biology, College of Arts and Sciences, University of Kentucky, Lexington, Kentucky, USA.

PhD in Biology/Neurobiology and Physiology

Jan 2011-May 2016

Dissertation title: Modulatory Actions of Serotonergic System in Cardiac Function, Behavior, and Sensorimotor Circuit Activity in *Drosophila melanogaster*. **Dissertation Director:** Dr Robin L. Cooper

2. Department of Biology, College of Science, Salahaddin University-Erbil, Erbil, Iraq.

MSc in Biology/Animal Physiology

November 2004-August 2006

Thesis project: Effects of L-Carnitine and Melatonin on Biochemical and Hematological Parameters in Male Albino Rats. **Thesis Director:** Dr Almas M.R. Mahmud

3. Department of Biology, College of Science, Salahaddin University-Erbil, Erbil, Iraq.

B.Sc. in Biology

October 1999-July 2003

Research Project: Incidences of Bacterial Urinary Tract Infection in Pregnant Women in Pediatric and Maternity Hospital, Erbil, Iraq.

4. Rizgari High school, Erbil, Iraq.

Baccalaureate degree

October 1996-July 1999

Employment

1. Assistant Professor, College of Science, Salahaddin University-Erbil, Erbil, Iraq.

April 2021-Present

2. Lecturer, College of Science, Salahaddin University-Erbil, Erbil, Iraq.

October 2010-March 2021

3. Assistant Lecturer, College of Science, Salahaddin University-Erbil, Erbil, Iraq.

November 2006- 2010

4. Biology Assistant, College of Science, Salahaddin University-Erbil, Erbil, Iraq.

October 2003- November 2004

Qualifications

1. Certificate of English Language Course, University of Kentucky, Center for English as a Second Language (ESL), Lexington, KY, USA.

August 2010-December 2010

2. Certificate of Computer Training Course, Salahaddin University-Erbil, Erbil, Iraq.

July, 2009-August 2009

3. Certificate of Teaching Methods, Salahaddin University-Erbil, Erbil, Iraq.

September 2008-March 2009

4. Certificate of English Language Course, Salahaddin University-Erbil, Language Center, Erbil, Iraq.

July, 2007-August 2007

5. Certificate of English Language Course, Salahaddin University-Erbil, Language Center, Erbil, Iraq.

October 2006-December 2006

Teaching experience

1. Neuroscience course (2018-2023)
2. Endocrinology course (2021-2023)
3. Human Anatomy course (2020-2023)
4. Graduate-level Research Methodology course (2020-2021)
5. Graduate-level Neuroscience Course (2020-2021)
6. Graduate-level Cell Physiology course (2020-2021)
7. Animal Physiology course (2020-2021)
8. Principles of Genetics course (2020-2021)
9. Cell Biology course (2018-2021)

Research and publications

1. **Majeed ZR**, Qasim FK, and Hassan HA (2019) Hypotensive Action of Pomegranate Seed Extract and Zinc Chloride in Hypertensive Rats. ZJPAS: 2019, 31 (5): 44-52. DOI: <http://dx.doi.org/10.21271/zjpas>
2. de Castro C, Titlow J, **Majeed ZR**, Malloy C, King KE, and Cooper RL (2019) Mechanical and Chemical Factors Required for Maintaining Cardiac Rhythm in *Drosophila melanogaster* Larva. J. Entomol., 16: 62-73. DOI: 10.3923/je.2019.62.73
3. Miller BF, Hamilton KL, **Majeed ZR**, Abshire S, Confides A, Hayek A, Hunt E, Shipman P, Peelor FF III, Butterfield T, Dupont-Versteegden E (2018) Enhanced skeletal muscle regrowth and remodeling in massaged and contralateral non-massaged hind limb. J Physiol. 2018 Jan 1;596(1):83-103.
4. **Majeed ZR**, Koch, F, Morgan, J, Anderson, H, Wilson, J, and Cooper, RL (2017) A novel educational module to teach neural circuits for college and high school students: NGSS-neurons, genetics, and selective stimulations. F1000Research. F1000Research: Immediate & Transparent Publishing for Life Scientists. F1000 Research Ltd, Middlesex House, 34-42 Cleveland St, London W1T 4LB, UK.

5. Anderson KL, Frazier HN, Maimaiti S, Bakshi VV, **Majeed ZR**, Brewer LD, Porter NM, Lin AL, Thibault O (2017) Impact of Single or Repeated Dose Intranasal Zinc-free Insulin in Young and Aged F344 Rats on Cognition, Signaling, and Brain Metabolism. *The journals of gerontology. Series A, Biological sciences and medical sciences* 72(2): 189-197.
6. **Majeed ZR**, Abdeljaber E, Soveland R, Cornwell K, Bankemper A, Koch F, Cooper RL (2016) Modulatory Action by the Serotonergic System: Behavior and Neurophysiology in *Drosophila melanogaster*. *Neural Plasticity* vol. 2016, 23 pages. <http://www.hindawi.com/journals/np/2016/7291438/>
7. Zhu YC, Uradu H, **Majeed ZR**, Cooper RL (2016) Optogenetic stimulation of *Drosophila* heart rate at different temperatures and Ca²⁺ concentrations. *Physiol Rep.* 4(3). pii: e12695.
8. **Majeed ZR**, Ritter K, Robinson J, Blümich SL, Brailoiu E, Cooper RL (2015) New insights into the acute actions from a high dosage of fluoxetine on neuronal and cardiac function: *Drosophila*, crayfish and rodent models. *Comp Biochem Physiol C Toxicol Pharmacol.* 176-177:52-61.
9. Titlow JS, Rice J, **Majeed ZR**, Holsopple E, Biecker S, Cooper RL (2014) Anatomical and genotype-specific mechanosensory responses in *Drosophila melanogaster* larvae. *Neurosci Res.* 83:54-63.
10. **Majeed ZR**, Stacy A, Cooper RL (2014) Pharmacological and genetic identification of serotonin receptor subtypes on *Drosophila* larval heart and aorta. *J Comp Physiol B.* 184(2):205-19.
11. de Castro C, Titlow J, **Majeed ZR**, Cooper RL (2014) Analysis of various physiological salines for heart rate, CNS function, and synaptic transmission at neuromuscular junctions in *Drosophila melanogaster* larvae. *J Comp Physiol A Neuroethol Sens Neural Behav Physiol.* 200(1):83-92. doi: 10.1007/s00359-013-0864-0. Epub 2013 Nov 5.
12. Titlow JS, **Majeed ZR**, Hartman HB, Burns E, Cooper RL (2013) Neural circuit recording from an intact cockroach nervous system. *J Vis Exp.* 81:e50584.
13. Titlow J, **Majeed ZR**, Nicholls JG, Cooper RL (2013) Intracellular recording, sensory field mapping, and culturing identified neurons in the leech, *Hirudo medicinalis*. *J Vis Exp.* (81):e50631.
14. **Majeed ZR**, Titlow J, Hartman HB, Cooper RL (2013) Proprioception and tension receptors in crab limbs: student laboratory exercises. *J Vis Exp.* 80:e51050. doi: 10.3791/51050.
15. **Majeed ZR**, Nichols CD, Cooper RL (2013) 5-HT stimulation of heart rate in *Drosophila* does not act through cAMP as revealed by pharmacogenetics. *J Appl Physiol* (1985). 115(11):1656-65.

16. Becnel J, Johnson O, **Majeed ZR**, Tran V, Yu B, Roth BL, Cooper RL, Kerut EK, Nichols CD (2013) DREADDs in Drosophila: a pharmacogenetic approach for controlling behavior, neuronal signaling, and physiology in the fly. *Cell Rep.* 4(5):1049-59.

Conferences and courses attended

1. **Majeed, Z.R.**, Cooper, R.L. and Nichols, C.D. (2011) Effect of DREADD receptor activation in Drosophila motoneurons on synaptic transmission. Annual meeting of Society for Neuroscience. Washington, DC, USA.
2. **Majeed, Z.R.**, Nichols, C.D. and Cooper, R.L. (2012) Effect of DREADD receptor activation in Drosophila motoneurons on synaptic transmission. Spring Neuroscience Day, University of Kentucky, Lexington, Kentucky. March 29, 2012.
3. Cooper, R.L., Titlow, J. and **Majeed, Z.R.** (2012) Introduction of a new neurophysiology laboratory for students at the University of Kentucky. Spring Neuroscience Day, University of Kentucky, Lexington, Kentucky. March 29, 2012.
4. Nichols, C.D., Becnel, J., Johnson, O., **Majeed, Z.R.**, Tran, V., Yu, B., Roth, B.L. and Cooper, R.L. (2012). DREADD receptor control of behavior, signalling, and physiology in the model organism Drosophila melanogaster. Meeting on: Optogenetics and Pharmacogenetics in Neuronal Function and Dysfunction. Hilton Riverside, New Orleans, LA, USA. 11-12 October 2012. Sponsored by Thorlabs (Photonics).
5. **Majeed, Z.R.**, Cooper, R.L., and Nichols, C.D. (2012). The influence of DREAD receptors activation in the CNS of Drosophila melanogaster. Annual meeting of Society for Neuroscience. New Orleans, LA., USA.
6. Cooper, R.L., Titlow, J. and **Majeed, Z.R.** (2012). Introduction of a new neurophysiology laboratory for students at the University of Kentucky. Annual meeting of Society for Neuroscience. New Orleans, LA., USA.
7. **Majeed, Z.R.**, Nichols, C.D. and Cooper, R.L. (2012). Pharmacogenetic approach in directing inhibition of the larval heart in Drosophila melanogaster. The Kentucky Academy of Science annual meeting. Oct.19-20, 2012, Eastern Kentucky University, Richmond, Kentucky.
8. Stacy, A., **Majeed, Z.R.** and Cooper, R.L. (2012). Characterization of 5-HT (serotonin) receptor subtypes in Drosophila melanogaster larval heart. The Kentucky Academy of Science annual meeting. Oct.19-20, 2012, Eastern Kentucky University, Richmond, Kentucky.
9. **Majeed, Z.R.**, Nichols, C.D. and Cooper, R.L. (2012). Pharmacogenetic approach in directing inhibition of the larval heart in Drosophila melanogaster. The Center for Muscle Biology Univ. of KY. Oct. 25, 2012.
10. Stacy, A., **Majeed, Z.R.** and Cooper, R.L. (2012). Characterization of 5-HT (serotonin) receptor subtypes in Drosophila melanogaster larval heart. The Center for Muscle Biology Univ. of KY. Oct. 25, 2012.

11. Crosthwaite, T., **Majeed, Z.** and Cooper, R.L. (2013) Role of PLC-IP3-PKC pathway in 5-HT mediated heart rate modulation in *Drosophila* larvae. Annual meeting of the Ky chapter of the American Physiological Society, Univ of Kentucky, Lexington, Ky. March 25, 2013.
12. Titlow, J., **Majeed, Z.R.**, Nicholls, J.G. and Cooper, R.L. (2013) Teaching with leeches- An undergraduate neurophysiology module. Annual meeting of the Ky chapter of the American Physiological Society, Univ of Kentucky, Lexington, Ky. March 25, 2013.
13. **Majeed, Z.R.**, Titlow, J., Hartman, H.B. and Cooper, R.L. (2013) Teaching with crabs- An undergraduate physiology module. Annual meeting of the Ky chapter of the American Physiological Society, Univ of Kentucky, Lexington, Ky. March 25, 2013.
14. Bankemper, A., **Majeed, Z.** and Cooper, R.L. (2013) Characterization of 5-HT receptor subtype in sensory-CNS-motor circuit in *Drosophila* larvae. Spring Neuroscience Day, University of Kentucky, Lexington, Kentucky. April 8, 2013.
15. **Majeed, Z. R.**, Swoveland, R. and Cooper, R. L. (2013) The influence of serotonin alteration on behavior and development in *Drosophila*. Spring Neuroscience Day, University of Kentucky, Lexington, Kentucky. April 8, 2013.
16. Titlow, J.S., **Majeed, Z. R.**, Nicholls, J.G. and Cooper, R.L. (2013) Teaching with Leeches- An Undergraduate Neuroscience Module. Spring Neuroscience Day, University of Kentucky, Lexington, Kentucky. April 8, 2013.
17. Cooper, R.L., **Majeed, Z.R.**, Titlow, J., Stacy, A., King, K., Rufer, J.M., Nichols, C.D. (2013) Pharmacogenetic approaches in altering heart rate in *Drosophila* larvae. The American Physiological Society annual meeting. April 20-24, 2013. Boston, MA. USA.
18. Stacy, A., **Majeed, Z.R.** and Cooper, R.L. (2012). Characterization of 5-HT (serotonin) receptor subtypes in *Drosophila melanogaster* larval heart. Undergraduate Showcase of Scholars, Univ of Kentucky, Lexington, Ky. April 24, 2013.
19. Crosthwaite, T., **Majeed, Z.** and Cooper, R.L. (2013) Role of PLC-IP3-PKC pathway in 5-HT mediated heart rate modulation in *Drosophila* larvae. Undergraduate Showcase of Scholars, Univ of Kentucky, Lexington, Ky. April 24, 2013.
20. Bankemper, A., **Majeed, Z.** and Cooper, R.L. (2013) Characterization of 5-HT receptor subtype in sensory-CNS-motor circuit in *Drosophila* larvae. Undergraduate Showcase of Scholars, Univ of Kentucky, Lexington, Ky. April 24, 2013.
21. de Castro, C., **Majeed, Z.R.**, Titlow, J. and Cooper, R.L. (2013). Analysis of various physiological salines for heart rate, CNS function, and synaptic transmission at NMJs in *Drosophila melanogaster* larvae. University of Kentucky Gill Heart Institute Cardiovascular Research Day. Oct. 11, 2013
22. Titlow, J.S., King, K.E., **Majeed, Z.R.** and Cooper, R.L. (2013) Additive stimulatory effects of monoamines on *Drosophila melanogaster* heart rate. University of Kentucky Gill Heart Institute Cardiovascular Research Day. Oct. 11, 2013
23. **Majeed, Z.R.**, Stacy, A., Crosthwaite, T. and Cooper, R.L. (2013) 5-HT receptor subtypes and associated intracellular signaling pathway that mediate heart rate modulation in *Drosophila* larvae. University of Kentucky Gill Heart Institute Cardiovascular Research Day. Oct. 11, 2013.

24. Rice, J., **Majeed, Z.R.**, Titlow, J. and Cooper, R.L. (2013) Development of the Jordan HAT assay to study mechanosensation: Selective modulation of a neural circuit in larval *Drosophila melanogaster*. Annual meeting of the Kentucky Academy of Sciences. Nov.8- 9, 2013 at Morehead Univ.
25. Dabbain, N., Graff, J., **Majeed, Z.R.**, and Cooper, R.L. (2013) The effects of GABA on development, behavior and survival in *Drosophila*. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY.
26. King, K., **Majeed, Z.R.**, Titlow, J. and Cooper, R.L. (2013) Additive stimulatory effects of octopamine and serotonin on *Drosophila melanogaster* heart rate. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY.
27. Crosthwaite, T., **Majeed, Z.R.**, and Cooper, R.L. (2013) The modulatory mechanism of action of serotonin in *Drosophila* larval heart. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY.
28. Cornwell, K., **Majeed, Z.R.**, and Cooper, R.L. (2013) The effect of evolutionarily conserved neuromodulator, serotonin, on behavior in *Drosophila melanogaster*. Annual meeting of the Tennessee Academy of Sciences. Nov. 15, 2013 at Motlow State Community College in Tullahoma, TN
29. Abdeljaber, E., **Majeed, Z.R.**, and Cooper, R.L. (2013) Role of 5-HT_{2B} in *Drosophila* development and behavior. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY. 1st place Poster award-undergrad.
30. Stacy, A., **Majeed, Z.R.**, and Cooper, R.L. (2013) Serotonin and heart: How serotonin modulates the heart rate in *Drosophila* larvae. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY.
31. Bankemper, A., **Majeed, Z.R.**, and Cooper, R.L. (2013) Studying the role of serotonin in neural circuit modulation and behavior in *Drosophila melanogaster*. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY.
32. de Castro, C., **Majeed, Z.R.**, Titlow, J. and Cooper, R.L. (2013). Analysis of various physiological salines for heart rate, CNS function, and synaptic transmission at neuromuscular junctions in *Drosophila melanogaster* larvae. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY. 2nd place Poster award-undergrad.
33. **Majeed, Z.R.**, Cornwell, K., Bankemper A., Abdeljaber, E. and Cooper, R.L. (2013). The effect of serotonergic system dysfunction on neural circuitry and behavior in *Drosophila melanogaster*. Annual meeting of the Kentucky Academy of Sciences. Nov. 8-9, 2013 at Morehead Univ. KY.
34. Cooper, R.L., **Majeed, Z.R.**, Santin, J.M. and Hartzler, L.K. (2014) Alteration in synaptic transmission by CO₂: Glutamate insensitivity. Society for Integrative and Comparative Biology. Annual meeting. January 3-7, 2014, Austin, Texas.
35. **Majeed, Z.R.**, Santin, J., Hartzler, L. and Cooper, R.L. (2014) How CO₂ suppresses synaptic transmission: Changing in glutamate sensitivity. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. March, 27.

36. Dabbain, N., Graff, J., **Majeed, Z.R.** and Cooper, R.L (2014) The effects of GABA on sensory- motor circuit activity, behavior and development in *Drosophila*. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. March, 27.
37. Abdeljaber, E., **Majeed, Z.R.**, and Cooper, R.L. (2014) Modulatory role of serotonergic system in locomotion neural circuitry and behavior in *Drosophila melanogaster*. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. March, 27.
38. Bankemper, A., **Majeed, Z.R.** and Cooper, R.L. (2014) Studying the role of serotonin in neural circuit modulation and behavior in *Drosophila melanogaster*. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. March, 27.
39. Bankemper, A., **Majeed, Z.R.** and Cooper, R.L. (2014) Studying the role of serotonin in neural circuit modulation and behavior in *Drosophila melanogaster*. NCUR-National Council on Undergraduate Research. April 5-7. Univ of KY, Lexington, KY.
40. Rice, J. **Majeed, Z.R.**, Titlow, J. and Cooper, R.L. (2014) Development of the Jordan HAT assay to study mechanosensation: Selective modulation of a neural circuit in larval *Drosophila melanogaster*. NCUR-National Council on Undergraduate Research. April 5- 7. Univ of KY, Lexington, KY.
41. Abdeljaber, E., **Majeed, Z.R.**, and Cooper, R.L. (2014) Role of 5-HT2B in *Drosophila* development and behavior. NCUR-National Council on Undergraduate Research. April 5-7. Univ of KY, Lexington, KY.
42. Dabbain, N., Graff, J., **Majeed, Z.R.** and Cooper, R.L. (2014) The effects of GABA on development, behavior and survival in *Drosophila*. NCUR-National Council on Undergraduate Research. April 5-7. Univ of KY, Lexington, KY.
43. Vaughn, M., King, K., **Majeed, Z.R.**, Titlow, J.S. de Castro, C., and Cooper, R.L. (2014). The effects of combined modulators on *Drosophila melanogaster* heart physiology: dopamine, octopamine and serotonin. NCUR-National Council on Undergraduate Research. April 5-7. Univ of KY, Lexington, KY.
44. Dabbain, N., Graff, J., **Majeed, Z.R.** and Cooper, R.L. (2014). Inhibitory neurotransmitter GABA: its role in locomotive neural circuit activity and behavior in *Drosophila melanogaster*. 2nd Annual meeting of the Ky chapter of the American Physiological Society, Univ. of Louisville, Ky. March 31, 2014.
45. Bankemper, A., **Majeed, Z.R.** and Cooper, R.L. (2014). The role of various serotonin receptor subtypes in modulation of neural circuitry and behavior in *Drosophila melanogaster*. 2nd Annual meeting of the Ky chapter of the American Physiological Society, Univ. of Louisville, Ky. March 31, 2014.
46. Abdeljaber, E., **Majeed, Z.R.** and Cooper, R.L. (2014). Serotonin modulates locomotion neural circuitry and behavior in *Drosophila melanogaster*. 2nd Annual meeting of the Ky chapter of the American Physiological Society, Univ. of Louisville, Ky. March 31, 2014.
47. Biecker, S., Titlow, J.S., Rice, J., **Majeed, Z.R.**, Holsopple, E. and Cooper, R.L. (2014). A novel system to investigate sensory habituation. 2nd Annual meeting of the Ky chapter of the American Physiological Society, Univ. of Louisville, Ky. March 31, 2014.

48. **Majeed, Z.R.**, Santin, J., Hartzler, L. and Cooper, R.L. (2014). Synaptic transmission suppression by carbon dioxide: Glutamate receptor sensitivity. 2nd Annual meeting of the Ky chapter of the American Physiological Society, Univ. of Louisville, Ky. March 31, 2014.
49. DeCastro, C., Titlow, J., **Majeed, Z.R.**, Vaughn, M., and Cooper, R.L. (2014). Maintaining the *Drosophila* larval heart for physiological measures: Modulators and cocktails. 2nd Annual meeting of the Ky chapter of the American Physiological Society, Univ. of Louisville, Ky. March 31, 2014.
50. Cooper, R.L., **Majeed, Z.R.**, Malloy, C., Blümich, S.L.E. and Putnam, R.W. (2014). Synaptic transmission: Effects of intracellular and intravacuolar pH. Annual meeting of Society for Neuroscience. Washington, D.C, USA.
51. Cooper, R.L., **Majeed, Z.R.**, Malloy, C., Potts, D., Zeidler-Watters, K., Krall, R.M., Johnson, D., Mayo, S., Zwanzig, G., Anderson, H., Colgan III, W., Chung, W.-Y. Megighian, A. and Dupont-Versteegden, E.E. (2014). Citizen science with high school students and adults from around the world participating in analysis of synaptic transmission. Annual meeting of Society for Neuroscience. Washington, D.C, USA.
52. Ritter, K., **Majeed, Z.R.**, Robinson, J., Blümich, S.L.E., Brailoiu, E. and Cooper, R.L. (2014). Acute actions of fluoxetine (Prozac) on neuronal and cardiac function. Annual meeting of the Kentucky Academy of Sciences. Nov. 14-16, 2014 at Lexington, KY.
53. Dabbain, N., Schwarcz, E., Graff, J., **Majeed, Z.R.** and Cooper, R.L. (2014) How the inhibitory modulator GABA alters development, behavior and survival and heart function in *Drosophila*. Annual meeting of the Kentucky Academy of Sciences. Nov. 14-16, 2014 at Lexington, KY.
54. Cooper, R.L., **Majeed, Z.R.**, Malloy, C., Blümich, S.L.E., Chung, W.-Y., and Putnam, R.W. (2015). Effects of intracellular pH on synaptic transmission: Differences in evoked and spontaneous release. Poster. Society for Integrative and Comparative Biology. Annual Meeting. January 3-7, 2015 West Palm Beach, FL.
55. Cooper, R.L., DeCastro, C., Titlow, J., **Majeed, Z.R.**, Malloy, C., Vaughn, M., and King, K. (2015). Maintaining the *Drosophila* larval heart in situ: Modulators and stretch activated channels. Oral. Society for Integrative and Comparative Biology. Annual Meeting. January 3-7, 2015 West Palm Beach, FL.
56. Cooper, R.L., **Majeed, Z.R.**, Malloy, C., Zeidler-Watters, K., Krall, R.M., Johnson, D., Mayo, S., Colgan III, W., Chung, W.-Y., Megighian, A. and Dupont-Versteegden, E.E. (2015). Citizen science with high school students and adults from around the world participating in analysis of synaptic transmission. Oral. Society for Integrative and Comparative Biology. Annual Meeting. January 3-7, 2015 West Palm Beach, FL.
57. Blümich, S.L.E., Ritter, K., **Majeed, Z.R.**, Robinson, J., Brailoiu, E. and Cooper, R.L. (2015). Acute actions of fluoxetine (Prozac) on behavior and neuronal activity. 11th Göttingen Meeting of the German Neuroscience Society 2015. March 18 - 21, 2015 Göttingen, Germany.
58. deCastro, C., Titlow, J., **Majeed, Z.R.**, Vaughn, M., King, K. and Cooper, R.L. (2015) Maintaining the *Drosophila* larval heart in situ: Modulators and stretch activated

- channels. 3rd Annual meeting of the KY chapter of the American Physiological Society, Sullivan University College of Pharmacy, Louisville, KY. March 23, 2015.
59. deCastro, C., Titlow, J., **Majeed, Z.R.**, Vaughn, M., King, K. and Cooper, R.L.(2015). Maintaining the Drosophila larval heart in situ: Modulators and stretch activated channels. The 9th International Congress of Comparative Physiology and Biochemistry. August 23-28, Kraków, Poland.
 60. Piedade, W.P., Koch, F. **Majeed, Z.**, Brailoiu, E., Blümich, S.L.E., Putman, R., and Cooper, R.L. (2015). Sensitivity of presynaptic pH on synaptic transmission: Differences in evoked and spontaneous release. Annual meeting of Society for Neuroscience. Chicago, IL., USA.
 61. DMahmood, D., Dabbain, N., Graff, J., **Majeed, Z.R.** and Cooper, R.L. (2015). How the inhibitory modulator GABA alters development, behavior and neuronal circuit function in Drosophila. Annual meeting of Society for Neuroscience. Chicago, IL., USA
 62. Sifers, J., D.Mahmood, D., Dabbain, N., Graff, J., **Majeed, Z.R.** and Cooper, R.L. (2015). GABA's action modulating development, behavior and survival as well as heart function in Drosophila. Annual meeting of the Kentucky Academy of Sciences. Nov. 13-14, 2015 at Northern Kentucky University.
 63. deCastro, C., Titlow, J., **Majeed, Z.R.**, Malloy, C. Zhu, Y.-C., Vaughn, M., King, K. and Cooper, R.L. (2015). Maintaining the Drosophila larval heart in situ: Modulators and stretch activated channels. Annual meeting of the Kentucky Academy of Sciences. Nov. 13-14, 2015 at Northern Kentucky University.
 64. Piedade, W.P., Koch, F. **Majeed, Z.**, Brailoiu, E., Blümich, S.L.E., Putman, R., and Cooper, R.L. (2015). Sensitivity of presynaptic pH on synaptic transmission: Differences in evoked and spontaneous release. Annual meeting of the Kentucky Academy of Sciences. Nov. 13-14, 2015 at Northern Kentucky University.
 65. Koch, F., **Majeed, Z.R.**, Morgan, J., and Cooper, R.L. (2016) Manipulation of various neural circuits and the effect on locomotion behavior in Drosophila using optogenetics. Leipzig Veterinary Congress, Leipzig, Germany. January 14 to 16, 2016
 66. Piedade, W.P., Koch, F. **Majeed, Z.**, Brailoiu, E., Blümich, S.L.E., Putman, R., and Cooper, R.L. (2016). Sensitivity of presynaptic pH on synaptic transmission: Differences in evoked and spontaneous release. Annual Meeting of the Kentucky Chapter of the American Physiological Society, March 24, 2016, Univ of KY., Lexington, KY.
 67. deCastro, C., Titlow, J., **Majeed, Z.R.**, Malloy, C. Zhu, Y.-C., Vaughn, M., King, K. and Cooper, R.L. (2016). Maintaining the Drosophila larval heart in situ: Modulators and stretch activated channels. Annual Meeting of the Kentucky Chapter of the American Physiological Society, March 24, 2016, Univ of KY., Lexington, KY.
 68. Demers, B., Koch, F., **Majeed, Z.R.**, Morgan, J., Anderson, H., Cooper, R.L. (2016). Manipulation of various neural circuits and the effect on behavior in Drosophila using optogenetics: NGSS-Neurons, genetics, and selective stimulations. Annual Meeting of the Kentucky Chapter of the American Physiological Society, March 24, 2016, Univ of KY., Lexington, KY.

69. Greene, E., Demers, B., **Majeed, Z.R.**, Morgan, J., and Cooper, R.L. (2016) Manipulation of the serotonin neural circuit and the effect on locomotion behavior and physiology in *Drosophila* using optogenetics. Annual Meeting of the Kentucky Chapter of the American Physiological Society, March 24, 2016, Univ of KY., Lexington, KY.
70. Koch, F., **Majeed, Z.R.**, Morgan, J., and Cooper, R.L. (2016) Manipulation of various neural circuits and the effect on locomotion behavior in *Drosophila* using optogenetics. 8th European Conference on Comparative Neurobiology (ECCN). April 7-9, 2016. Munich, Germany.
71. Demers, B., Koch, F., **Majeed, Z.R.**, Morgan, J., Anderson, H., Cooper, R.L. (2016). Manipulation of various neural circuits and the effect on behavior in *Drosophila* using optogenetics: NGSS-Neurons, genetics, and selective stimulations. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. April, 21.
72. Greene, E., Demers, B., **Majeed, Z.R.**, Morgan, J., and Cooper, R.L. (2016) Manipulation of the serotonin neural circuit and the effect on locomotion behavior and physiology in *Drosophila* using optogenetics. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. April, 21.
73. Koch, F., **Majeed, Z.R.**, Morgan, J., and Cooper, R.L. (2016) Manipulation of various neural circuits and the effect on locomotion behavior in *Drosophila* using optogenetics. 8th European Conference on Comparative Neurobiology (ECCN). April 7-9, 2016. Munich, Germany.
74. Cooper, R.L., **Majeed, Z.R.**, Titlow, J.S., Malloy, C.A. and de Castro, C. (2016) What the *Drosophila* larval heart preparation has taught us about pacemaker modulation. 2016 International Congress of Entomology. September 25-30, 2016 in Orlando, Florida, USA.
75. Hall, K., D.Mahmood, D., Dabbain, N., Graff, J., **Majeed, Z.R.**, and Cooper, R.L. (2016) Optogenetic and pharmacological alteration in the GABAergic system within *Drosophila melanogaster* affects development, feeding behavior and locomotion. Annual Meeting of the Kentucky Chapter of the American Physiological Society, March 24, 2016, Univ of KY., Lexington, KY.
76. D.Mahmood, D., Hall, K., Dabbain, N., Graff, J., **Majeed, Z.R.**, and Cooper, R.L. (2016) Optogenetic and pharmacological alteration in the GABAergic system within *Drosophila melanogaster* affects development, feeding behavior and locomotion. Bluegrass Chapter of Society for Neuroscience annual meeting. Lexington, KY. April, 21.
77. Ballinger Boone, C., Donovan, T., Shumard, R., Cooper, A., Melody, M., Hickey, T., **Majeed, Z.R.**, Cornelius, M., Garrigus, H., Higgins, E., LaBarre, M., Larson, A., McNabb, M., Monticello, Stockwell, B., Boachie, P., Ho, A., Slabach, B., Weineck, K., Medley, M., Dzubuk Pettersson, N., McCall, J., Somasundaram, E., Malloy, C., and Cooper, R.L. (2017). The dependence on nerve evoked conditions in relation to the occurrence of spontaneous quantal events at *Drosophila* neuromuscular junctions. Society for Neuroscience, Washington, DC. Nov. 11-15 2017.

78. Cooper, R.L., **Majeed, Z.R.**, Hickey, T., Ballinger Boone, C., Donovan, T., Higgins, E., Labarre, M., Larson, A., McNabb, M., Monticello, K., Shumard, R., Stockwell, B., Boachie, P., Ho, A., Melody, M., Cooper, A., and Slabach, B. (2017). Course-based undergraduate research experience (CURE) with online interactions for a neurobiology class in Iraq and in the USA: Alterations in synaptic transmission. Society for Neuroscience, Washington, DC, Nov. 11-15 2017.

Funding and academic awards

1. Awarded the First Place Prize for oral presentation of Graduate Research Competition (Physiology and Biochemistry Section) at the Kentucky Academy of Science meeting (2012).
2. Awarded the second Place Prize for oral presentation of Graduate Research Competition (Physiology and Biochemistry Section) at the Kentucky Academy of Science meeting (2013).
3. PhD scholarship by the Higher Committee for Education Development in Iraq (HCED) (2010-2016).

Professional memberships

1. Society for Neuroscience (2011-2016)
2. American Physiological Society (2014-2016)
3. Kentucky Academy of Science (2012-2013)
4. Kurdistan Biology Syndicate (2010-present)