Curriculum Vitae

Stacy A. Hussong, Ph.D.

Oklahoma City Veterans Health Care System
University of Oklahoma Health Sciences Center
Department of Biochemistry and Molecular Biology
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EMPLOYMENT

Research Health Scientist, Oklahoma City Veterans Health Care System	Aug 2021 – present
Assistant Professor/Research, University of Oklahoma Health Sciences Center	Aug 2021 - present
Research Health Scientist, South Texas Veterans Health Care System San Antonio, TX	Feb 2018 – Aug 2021
Instructor/Research, UT Health San Antonio	Sept 2017 – Aug 2021
Postdoctoral Fellow, Faculty Mentor: Veronica Galvan, Ph.D. at the University of Texas Health Science Center at San Antonio	Nov 2010 – August 2017
Graduate Research Assistant, Thesis: "*Identifying novel roles for the immunoproteasome in the retina*", Advisor: Deborah A. Ferrington, Ph.D., at the University of Minnesota	2005- Oct 2010

EDUCATION

Ph.D.	University of Minnesota, PhD, Graduate program in Biochemistry, Molecular Biology and Biophysics (BMBB), Minor: Gerontology	October 2010
B.S.	University of South Dakota: Bachelor of Science, Department of Chemistry and Department of Biology	August 2005

AWARDS AND HONORS

Faculty

Career Development Award -2, VA Medical Center	2018-2023
Outstanding Junior Faculty Poster Presentation, Center for Biomedical Neuroscience 16th Annual Retreat, UT Health San Antonio	May 2018
Poster Presentation Award – Junior Faculty, 21st Annual Department of Medicine Research Day, UT Health San Antonio	May 2018
Junior Faculty Travel Award, American Aging Association 47th Annual Meeting	June 2018
Poster Presentation Award – VA Non-Clinical Research - Faculty, 22nd Annual Department of Medicine Research Day, UT Health San Antonio	May 2019
Junior Faculty Travel Award, American Aging Association 48th Annual Meeting	June 2019

Postdoctoral:

NIA T32 Training Grant (Biology of Aging)	2010-2013
Third Place Best Postdoctoral Poster Award, Center for Biomedical Neuroscience,10th Annual Retreat, UTHSCSA	May 2012
Research Poster Award – 3rd Place, 1st Annual Postdoctoral Research Forum and Distinguished Lecture	September 2013
San Antonio Life Sciences Institute Best Poster Presentation, 2nd Annual Postdoctoral Research Forum and Distinguished Lecture	September 2014
Joe and Bettie Ward Award for Excellence in the Study of the Biology of Aging	November 2015
Superior Postdoctoral Poster Award, 45th Annual Meeting of the American Aging Association	June 2016

Graduate:

Best Poster Award, Biochemistry, Molecular Biology, & Biophysics University of Minnesota	October 2007
Travel Fellowship Award, Biochemistry, Molecular Biology, & Biophysics	May 2007, 2008
Graduate and Professional Student Assembly Scholarly Travel Award	February 2009
Best Poster Award, Gordon Research Conference: Biology of Aging	February 2009
Outstanding Poster Presentation, Midwest Eye Research Symposium	June 2010
NIA T32 Training Grant (Functional Proteomics of Aging)	2008-2010

Undergraduate:

Alpha Lambda Delta Honor Society	1999
Dr. Joseph R. Spies Chemistry Scholarship, University of South Dakota	2002
The Dean Joseph H. Cash Award for Excellence in Writing, University of South Dakota	2002
Golden Key International Honor Society	2002
Senior Merit Award in Chemistry, University of South Dakota	2003-2004
Phi Beta Kappa Honor Society	2005
Magna Cum Laude, University of South Dakota	2005

PUBLICATIONS / SUBMITTED ARTICLES

1. Ethen, C.M., **Hussong, S.A.**, Reilly, C., Feng, X., Olsen, T.W., Ferrington, D.A. 2007. Transformation of the proteasome with age-related macular degeneration. *FEBS Letters* **581**: 885-890. PMCID: PMC1850528

2. Ferrington, D.A., **Hussong, S.A.**, Roehrich, H., Kapphahn, R.J., Kavanaugh, S., Heuss, N. and Gregerson, D.S. 2008. Immunoproteasome responds to injury in the retina and brain. *J Neurochem.* **106**: 158-169. PMCID: PMC4401486

3. **Hussong, S.A.**, Kapphahn, R.J., Phillips, S.L., Maldonado, M., and Ferrington, D.A. 2010. Immunoproteasome deficiency alters retinal proteasome's response to stress. *J Neurochem.* **113**: 1481-1490. PMCID: PMC2909641

4. **Hussong, S.A.**, Roehrich, H., Kapphahn, R.J., Maldonado, M., Pardue, M.T., and Ferrington, D.A. 2011. A novel role for immunoproteasome in retinal function. *Invest Ophthalmol Vis Sci.,* **52**: 714-723. PMCID: PMC3053103

5. Halloran, J.*, **Hussong, S.A.* (*authors contributed equally)**, Burbank, R.R., Podlutskaya, N., Fischer, K., Sloane, L., Austad, S., Strong, J.R., Richardson, A., Hart, M., Galvan, V. 2012. Chronic inhibition of mTOR by rapamycin modulates cognitive and non-cognitive components of behavior throughout lifespan in mice. *Neuroscience* **223C***:*102-113. PMCID: PMC3454865

   Recommended by Faculty of 1000

6. Pierce, A., Podlutskaya, N., **Hussong, S.A.**, Halloran, J.J., Burbank, R.R., Strong, J.R., Richardson, A., Hart M.J., Galvan, V. 2012. Upregulation of heat shock proteins by chronic rapamycin treatment lowers Aβ and prevents cognitive impairment in mice modeling Alzheimer's disease. *J Neurochem.* **124**: 880-893.

7. Lin, A.-L., Zheng, W., Halloran, J.J., Burbank, R.R., **Hussong, S.A.**, Hart, M.J., Javors, M., Shih, Y.-Y., Muir, E., Solano Fonseca, R., Strong, R., Richardson, A.G., Lechleiter, J.D., Fox, P.T., and Galvan, V. 2013. Chronic rapamycin restores brain vascular integrity and function through NO synthase activation and improves memory in symptomatic mice modeling Alzheimer's disease. *J Cereb Blood Flow Metab.* **33**: 1412-1421. PMCID: PMC3764385

8. Lin, A.-L., Pulliam, D., Sathyaeelan, D., Halloran, J., **Hussong, S.A**., Burbank, R., Bresnen, A., Liu, Y., Podlutskaya, N., Soundararajan, A., Muir, E.; Duong, T., Bokov, A., Viscomi, C., Zeviani, M., Richardson, A., Van Remmen, H., Fox, P., Galvan, V. 2013. Decreased mitochondrial function with Surf1-deficiency enhances brain metabolism, blood flow and memory in mice. *J Cereb Blood Flow Metab.* **33**: 1605-1611. PMCID: PMC3790931 ***Recommended by Faculty of 1000***

9. Heuss, N.D., Pierson, M.J., Montaniel, K.R., McPherson, S.W., Lehmann, U., **Hussong, S.A.**, Ferrington, D.A., Low, W.C., Gregerson, D.S. 2014. Retinal dendritic cell recruitment, but not function, was inhibited in MyD88 and TRIF deficient mice. *J Neuroinflammation.* **11**:143. PMCID: PMC4149240

10. Bai, X., **Hussong, S.A.** 2014. A new mouse model to study compensatory mechanisms that support normal motor function in Parkinson's disease. *J. Biochem. Pharmacol. Res.* **2(2)**: 54-56. PMCID: PMC4578241 *(Literature Review)*

11. Schuld, N.J.*, **Hussong, S.A.* (*authors contributed equally)**, Kapphahn, R.J., Lehmann, U., Roehrich, H., Rageh, A., Heuss, N., Gregerson, D.S., Ferrington, D.A. 2015. Immunoproteasome deficiency protects the retina after optic nerve crush. *PloS One* **10(5)**:e0126768. PMCID: PMC4433222

12. Jahrling, J.B., Lin, A, DeRosa, N., **Hussong S.A**., Van Skike, C.E., Girotti, M., Javors, M., Zhao, Q., Maslin, L.A., Asmis, R.,Galvan, V. 2018. mTOR Drives Cerebral Blood Flow and Memory Deficits in LDLR$^{-/-}$ Mice Modeling Atherosclerosis and Vascular Cognitive Impairment. *Journal of Cerebral Blood Flow and Metabolism.* **38(1)**: 58-74. PMCID: PMC5757441

13. Van Skike, C.E., Jahrling, J.B., Olson, A.B., Sayre, N.L., **Hussong, S.A.**, Ungvari, Z., Lechleiter, J.D., Galvan, V. 2018. Inhibition of mTOR protects the blood-brain barrier in models of Alzheimer's disease and vascular cognitive impairment. *Am J Physiol Heart Circ Physiol.* **314(4)**: H693-H703. PMCID: PMC5966773

14. Zhang, S.Y., Clark, N.E., Freije, C.A., Pauwels, E., Taggart, A., Okada, S., Mandel, H., Garcia, P., Ciancanelli, M.J., Biran, A., Lafaille, F.G., Tsumura, M., Cobat,A., Luo, J., Volpi, S., Zimmer, B., Sakata, S., Dinis, A., Ohara, O., Garcia-Reino, E.J., Dobbs, K., Hasek, M., Holloway, S.P., McCammon, K., **Hussong, S.A.**, DeRosa, N., Lorenzo, L., Hyodo, Van Skike, C.E., Katolik, A., Faria, E., Halwani, R., Fukuhara, R., Galvan, V., Damha, M.J., Al-Muhsen,S., Itan, Y., Boeke, J.D., Notarangelo, L.D., Studer, L., Kobayashi, M., Diogo, L., Fairbrother, W., Abel, L., Rosenberg, B., Hart, J., Etzioni, A., Casanova, J.L. 2018. Inborn errors of lariat metabolism in humans with viral infections of the brainstem. *Cell*. **172(5)**: 952-965. PMCID: PMC5886375

15. Van Skike, C.E., Lin, A-L., Burbank Roberts, R.R., Halloran, J.J., Hernandez, S.F., Cuvillier, J., Soto, V., **Hussong, S.A.**, Jahrling, J., Javors, M., Hart, M.J., Fischer, K., Austad, S.A., and Galvan, V. 2020. mTOR drives cerebrovascular, synaptic, and cognitive dysfunction in normative aging. *Aging Cell.* **19(1):** e13057. PMCID: PMC6974719.

16. Dorigatti, A.O.*, **Hussong, S.A.* (*authors contributed equally)**, Hernandez, S.F., Sills, A.M., Salmon, A.B., Galvan, V. 2020. Primary neuron and astrocyte cultures from postnatal *Callithrix jacchus*: a non-human primate in vitro model for research in neuroscience, nervous system aging, and neurological diseases of aging. *GeroScience.* **43(1):** 115-124. PMCID: PMC8050148.

17. Van Skike, C.E., **Hussong, S.A.**, Hernandez, S.F., Banh, A.Q., DeRosa, N., Galvan, V. 2021. mTOR attenuation with rapamycin reverses neurovascular uncoupling and memory deficits in mice modeling Alzheimer's disease *J. Neuroscience.* **41(19):** 4305-4320. PMCID: PMC8143195.

18. **Hussong, S.A.***, Banh, A.Q.*, (*authors contributed equally), Van Skike, C.E., Olson, A.B., Hernandez, S.F., Hart, M.J., Gazynska, M., Osmulski, P.A., McAllen, S.A., Dineley, K.T., Ungvari, Z., Pérez, V.I., Kayed, R., and Galvan, V. Soluble pathogenic tau enters brain vascular endothelial cells and drives cellular senescence and brain microvascular dysfunction in tauopathy. *In revision for Nature Communications.*

19. **Hussong, S.A.***, Van Skike, C*.E., (*authors contributed equally), DeRosa, Nicholas, and Galvan, Veronica. 2022. Rapamycin restores peripheral blood flow in aged mice and in mouse models of atherosclerosis and Alzheimer's disease. *In revision for GeroScience.*

20. **Hussong S.A.**, Burbank RR, Halloran JJ, DeRosa, N.D., Lin AL, Van Skike, C., Walsh, M.E., Bokov, A., Romero, P., Soto, V.Y., Liu, Y., Maslin, K., Van Remmen H, Austad, S.A., Fox, P.T., and Galvan V. Cell-autonomous and non-cell-autonomous regulation of brain and peripheral metabolism by neuronal mTORC1 signaling. ***In preparation, to be submitted to Cell Metabolism.*

21. **Hussong, S.A**., Galvan, V. mTORC1 regulates AMPK-dependent eNOS activation in brain vascular endothelial cells. *In preparation, to be submitted to Journal of Cerebral Blood Flow and Metabolism.*

INVITED PRESENTATIONS

"*An Alternative Role for the Immunoproteasome in Responding to Oxidative Stress*" San Antonio Nathan Shock Aging Center Conference on Aging 2007, Bandera, TX	October 2007
"*Immunoproteasome in Retinal Homeostasis*" Scientists in Aging Research Meeting, University of Minnesota, Minneapolis, MN	December 2008
"*An Alternate Role for Immunoproteasome in Retinal Homeostasis: Aging and Acute Light Stress*" Scientists in Aging Research Fall 2009 Symposium	September 2009
"*Here, There, and Everywhere: Disconnecting Healthspan from Lifespan by Knocking Down mTORC1 in Neurons*" Barshop Seminar Series, Joe and Bettie Ward Award for Excellence in the Study of the Biology Presentation	November 2015
"*Neuronal mTORC1 regulates brain and whole-body metabolism*" Edward J. Masoro Biology of Aging Student Day, UT Health San Antonio	April 2017
"*Mechanisms linking aging to Alzheimer's disease*" *in lieu* of Dr. Veronica Galvan. San Antonio Life Sciences Institute Aging & Neurodegenerative Diseases Symposium, University of Texas at San Antonio	July 2017
"*Prion-like propagation of tau oligomers trigger brain vascular endothelial dysfunction*, American Aging Association 47th Annual Meeting, Philadelphia, PA	July 2018
"*Prion-like propagation of soluble tau aggregates to brain microvascular endothelial cells promote cellular senescence and blocks eNOS activation,* BRAIN & BRAIN PET 2019	July 2019
"*Neuronal mTORC1 signaling controls peripheral metabolism*" American Aging Association 50th Annual Meeting, San Antonio, TX	May 2022

SELECTED ABSTRACTS/ POSTER PRESENTATIONS

1. **Hussong, S.A**., Ferrington, D.A. "Degradation of Oxidized Proteins by the Immunoproteasome." Biochemistry, Molecular Biology, & Biophysics Departmental Retreat, University of Minnesota, October 2007 ****Best Poster Award**
2. **Hussong, S.A**., Ferrington, D.A. "Upregulation of Immunoproteasome Protects Against Oxidative Stress" The Association for Research in Vision and Ophthalmology (ARVO) 2007 Annual Meeting, Ft. Lauderdale, FL
3. Gregerson, D.S., Roehrich, H., **Hussong, S.**, Ferrington, D.A. "Alternative Roles for Immunoproteasome – Repairing and Protecting From Retinal Damage" The Association for Research in Vision and Ophthalmology (ARVO) 2007 Annual Meeting, Ft. Lauderdale, FL
4. **Hussong, S.A.**, Ferrington, D.A., "An Alternative Role for Immunoproteasome in Responding to Oxidative Stress," San Antonio Nathan Shock Aging Center Conference on Aging 2007, Bandera, TX

5. **Hussong, S.A.**, Roehrich, H., Lehmann, U., Gregerson, D.S., Ferrington, D.A. "Immunoproteasome is Upregulated Following Retinal Injury," The Association for Research in Vision and Ophthalmology (ARVO) 2008 Annual Meeting, Ft. Lauderdale, FL
6. **Hussong, S.A.**, Kavanaugh, S.M., Roehrich, H., Kapphahn, R., Ferrington, D.A. "Immunoproteasome and Retinal Homeostasis: Response to Aging and Acute Light Stress." Gordon Research Conference: Biology of Aging, 2009, Ventura, CA ****Best Poster Award**
7. **Hussong, S.A.**, Kavanaugh, S.M., Roehrich, H., Kapphahn, R.J., Ferrington, D.A. "An Alternate Role for the Immunoproteasome in Retinal Stress Response." The Association for Research in Vision and Ophthalmology (ARVO) 2009 Annual Meeting, Ft. Lauderdale, FL
8. **Hussong, S.A.**, Kapphahn, R.J., Roehrich, H., Maldonado, M., Pardue, M.T., Ferrington, D.A. "Decreased Retinal Function in Immunoproteasome-deficient Mice." The Association for Research in Vision and Ophthalmology (ARVO) 2010 Annual Meeting, Ft. Lauderdale, FL
9. **Hussong, S.A.**, Kapphahn, R.J., Roehrich, H., Maldonado, M., Pardue, M.T., Ferrington, D.A. "Decreased Retinal Function in Immunoproteasome-deficient Mice." Midwest Eye Research Symposium 2010, Iowa City, IA ****Outstanding Poster Presentation**
10. **Hussong, S.A.**, Galvan, V. "Role of Neuronal mTOR in Aging" The American Aging Association 2011 Annual Meeting, Raleigh, NC
11. **Hussong, S.A.,** Galvan, V. Development of a Brain-specific Raptor Conditional Knock-out Mouse to Study the Role of Neuronal mTOR in Aging. San Antonio Nathan Shock Aging Center Conference on Aging 2011, Bandera, TX
12. **Hussong, S.A.**, Burbank, R.R., Halloran, J.J., Sloane, L.B., Soto, V., Galvan, V. "Development of a Brain-specific Raptor Conditional Knock-out Mouse to Study the Role of Neuronal mTOR in Aging." Center for Biological Neurosciences Retreat, May 2012, UTHSCSA
    ****3rd Place Best Postdoctoral Poster Award**
13. **Hussong, S.A.**, Burbank, R.R., Halloran, J.J., Sloane, L.B., Soto, V., Lin, A., Galvan, V. "A Brain-specific Raptor Conditional Knock-out Mouse to Study the Role of Neuronal mTOR in Aging." The American Aging Association 2012 Annual Meeting, Fort Worth, TX
14. **Hussong, S.A.**, Halloran, J.J., Burbank, R.R., Lin, A-L., Soto, V.Y., Galvan, V. Systemic Effects of Decreased Neuronal mTOR Signaling. San Antonio Nathan Shock Aging Center Conference on Aging 2012, Bandera, TX
15. **Hussong, S.A.**, Halloran, J.J., Burbank, R.R., Lin, A-L., Soto, V.Y., Galvan, V. Systemic Effects of Decreased Neuronal mTOR Signaling. 1st Annual Postdoctoral Research Forum and Distinguished Lecture 2013. ****Research Poster Award, 3rd Place**
16. **Hussong, S.A.**, Burbank, R.R., Long, L., Soto, V.Y., Galvan, V. "Non-cell Autonomous Regulation of Body Size and Metabolism by Neuronal mTORC1" San Antonio Nathan Shock Aging Center Conference on Aging 2013, Bandera, TX
17. **Hussong, S.A.**, Halloran, J.J., Burbank, R.R., Lin, A-L., Soto, V.Y., Galvan, V. "Non-cell Autonomous Control of Metabolism by Neuronal mTOR Signaling." American Aging Association Annual Meeting 2014, San Antonio, TX
18. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V., "Non-Cell Autonomous Control of Metabolism by Neuronal mTOR Signaling" 2nd Annual Postdoctoral Research Forum and Distinguished Lecture Sept. 2014 ****San Antonio Life Sciences Institute Best Poster Presentation**
19. **Hussong, S.A.**, Halloran, J.J., Burbank, R.R., Lin, A-L., Soto, V.Y., Galvan, V. "Non-cell Autonomous Control of Metabolism by Neuronal mTOR Signaling. San Antonio Nathan Shock Aging Center Conference on Aging 2014, Bandera, TX
20. **Hussong, S.A.**, Halloran, J.J., Burbank, R.R., Lin, A-L., Soto, V.Y., Galvan, V. "Non-cell Autonomous Control of Metabolism by Neuronal mTOR Signaling." Keystone Symposium on the Neural Control of Metabolic Physiology and Diseases, 2015, Snowbird, UT

21. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V., "Non-Cell Autonomous Control of Metabolism by Neuronal mTOR Signaling" 3rd Annual Postdoctoral Research Forum and Distinguished Lecture September 2015, UTHSCSA
22. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V., "Non-Cell Autonomous Control of Metabolism by Neuronal mTOR Signaling" San Antonio Nathan Shock Aging Center Conference on Aging 2015, Bandera, TX
23. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V. Here, There, and Everywhere: Disconnecting Healthspan from Lifespan by Knocking Down mTORC1 in Neurons. Symposium on Neurobiology and Neuroendocrinology of Aging, Center for Biological Neurosciences Retreat, May 2016, UTHSCSA
24. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V. Here, There, and Everywhere: Disconnecting Healthspan from Lifespan by Knocking Down mTORC1 in Neurons, Biology of Aging Student Day, May 2016, UTHSCSA
25. **Hussong, S.A.**, Galvan, V., mTORC1 Regulates AMPK-dependent eNOS Activation in Brain Vascular Endothelial Cells, Physiology Symposium, May 2016, UTHSCSA
26. **Hussong, S.A.**, Galvan, V., mTORC1 Regulates AMPK-dependent eNOS Activation in Brain Vascular Endothelial Cells, 45th Annual Meeting of the American Aging Association, June 2016, Seattle WA.
****Superior Postdoctoral Poster**
27. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V. "Here, There, and Everywhere: Disconnecting Healthspan from Lifespan by Knocking Down mTORC1 in Neurons." Symposium on Neurobiology and Neuroendocrinology of Aging, July 2016, Bregenz, Austria
28. **Hussong SA**, Burbank RR, Halloran JJ, Lin A-L., Soto, V.Y., and Galvan V. "Here, There, and Everywhere: Disconnecting Healthspan from Lifespan by Knocking Down mTORC1 in Neurons." Barshop Symposium on Aging, October 2016, Bandera, Texas
29. **Hussong, S.A.**, Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." First Galveston Symposium on Alzheimer's Disease & Related Disorders: Basic, Translational & Clinical Advances, March 2017, Galveston, Texas.
30. Olson, A., Jahrling, J. **Hussong, S.A.**, Galvan, V. "mTOR regulates brain vascular PICALM levels in a model of Alzheimer's disease." First Galveston Symposium on Alzheimer's Disease & Related Disorders: Basic, Translational & Clinical Advances, March 2017, Galveston, Texas
31. Olson, A., Jahrling, J. **Hussong, S.A.**, Galvan, V. "mTOR regulates brain vascular PICALM levels in a model of Alzheimer's disease." Berlin Brain 2017, April 2017, Berlin, Germany
32. **Hussong, S.A.**, Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." Institute for Integration of Medicine & Science 8th Annual Frontiers of Translational Science Research Day, April 2017, UT Health San Antonio
33. **Hussong, S.A.**, Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." Edward J. Masoro Biology of Aging Student Day, April 2017, UT Health San Antonio
34. **Hussong, S.A.**, Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." Center for Biological Neurosciences Retreat, May 2017, UT Health San Antonio
35. **Hussong S.A.**, Burbank R.R., Halloran J.J., Lin A-L.., Soto, V.Y., and Galvan V., "Non-Cell Autonomous Control of Metabolism by Neuronal mTOR Signaling" San Antonio Life Sciences Institute Aging & Neurodegenerative Diseases Symposium, July 2017 University of Texas at San Antonio
36. **Hussong, S.A.**, Van Skike, Candice, Olson, A.B., Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." Barshop Symposium on Aging, October 2017, Bandera, Texas

37. **Hussong, S.A.**, Van Skike, Candice, Olson, A.B., Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." Center for Biological Neurosciences Retreat, May 2018, UT Health San Antonio
****Outstanding Junior Faculty Poster Presentation**
38. **Hussong, S.A.**, Van Skike, Candice, Olson, A.B., Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." 21st Annual Department of Medicine Research Day, May 2018, UT Health San Antonio
****Junior Faculty Poster Presentation Award**
39. **Hussong, S.A.**, Van Skike, Candice, Olson, A.B., Hart, M.J., Kayed, R. Galvan, V. "Prion-like Propagation of Tau Oligomers Trigger Brain Vascular Endothelial Cell Dysfunction." 22nd Annual Department of Medicine Research Day, May 2019, UT Health San Antonio
****VA Non-Clinical Research – Faculty Poster Presentation Award**
40. **Hussong, S.A.** and Galvan, V. Age-related preservation of motor nerve conduction velocity in neuronal mTORC1 knockdown mice. 48th Annual Meeting of the American Aging Association, June 2019, San Francisco, CA.
41. **Hussong, S.A.** and Galvan, V. Age-related preservation of motor nerve conduction velocity in neuronal mTORC1 knockdown mice. Gerontological Society of America, November 2019, Austin, TX.

MEMBERSHIP / COMMITTEES

Association for Research in Vision and Ophthalmology	2006-2010
American Aging Association	2011-present

UNDERGRADUATE RESEARCH

Research Assistant, Project: "Effects of drying rates on lipid peroxidation in *Pisum sativum* embryonic protoplasts," Advisor: Karen L. Koster	2004-2005

TEACHING AND TRAINEES

Table 1: Trainees

Trainee	Program	Institution	Description	Date
Shannon Kavanaugh	Undergraduate Research	University of Minnesota	Mentor/ Supervisor	2007-2008
Wendy Bratten	Undergraduate Research	University of Minnesota	Mentor/ Supervisor	2008-2009
Holly Stessman	Graduate Student	University of Minnesota	Mentor/ Supervisor	2008
Michael Burns	Graduate Student	University of Minnesota	Mentor/ Supervisor	2008
Peter Romero	Undergraduate Research/START-UP	St. Mary's University, San Antonio/UTHSCSA	Mentor/ Supervisor	2013-2014
Celina Provencio	Undergraduate Research/START-UP	Trinity University, San Antonio/UTHSCSA	Mentor/ Supervisor	2014
Ethan Shelbourne-Dominguez	Voelcker Biomedical Research Program	Brooks Academy of Science and Engineering/UTHSCSA	Mentor/ Supervisor	2014
James Cuvillier	M-STAR (AFAR)	UTHSCSA Medical School	Mentor/ Supervisor	2014-2015
Brendan Langford	M-STAR (AFAR)	UTHSCSA Medical School	Mentor/ Supervisor	2015
Lea Morin	Voelcker Biomedical Research Program	Young Women's Leadership Academy/UTHSCSA	Mentor/ Supervisor	2014-2016
Angela Olson	Graduate Student	UT Health San Antonio	Mentor/	2015-2021

			Supervisor	
Stephen Hernandez	Undergraduate Research/START-UP	University of Texas San Antonio/UTHSCSA	Mentor	2016-2020
Megan Reyna	Odyssey Scholarship Program	University of Chicago	Mentor/ Supervisor	2017
Andy Banh	M.D./Ph.D. Graduate Student	UTHSCSA	Mentor	2017-2021
Marina Brown	Graduate Student	OUHSC	Mentor	2021-present
Haneen Makhlouf	Graduate Student	OUHSC	Mentor	2022-present

Classroom Instruction

- Laboratory in Biochemistry, BIOC 4025. Teaching Assistant. Conducted laboratory experiments, wrote quiz questions, prepared overviews of procedures with supporting background materials, and graded laboratory reports (University of Minnesota) 2008-2009
- IBMS 5000 Fundamentals of Biomedical Sciences, laboratory demonstration lecturer/assistant. Guided and lectured the laboratory demonstration class. 2014-2016
- Advance Cell Biology II – Advanced Cell Signaling, CELL 6121. Prepared and presented a lecture on mTOR signaling. This lecture covered the basic mTOR signaling pathway as well as the effects of mTOR on aging organisms and disease model systems. Spring 2022

SERVICE

Ad hoc reviewer, *Journal of Alzheimer's Disease* 2011-present
Ad hoc reviewer, *Journal of Gerontology* 2012-present
Alzheimer's Association TrialMatch station, Walk to End Alzheimer's 2014-2015
Update on Research at the Galvan Lab, Presentation and Lunch, Ms. Lisa Bailey 2015-present
Ad hoc reviewer, *GeroScience-Journal of the American Aging Association* 2016 - present
Ad hoc reviewer, *Journal of Integrative Neuroscience* 2018 – present
Ad hoc reviewer, *Scientific Reports* 2018 – present
Ad hoc reviewer, *Journal of Nutrition and Healthy Aging* 2018 – present
Editorial board member, *Frontiers in Aging: Interventions in Aging* 2020-present

RESEARCH SUPPORT

Current

1 IK2 BX003798-01A1 (Hussong)

Veterans Administration Career Development Award (CDA-2) 04/01/2018-3/31/2023

The Role of Neuronal mTORC1 in Alzheimer's Disease
The goal of this project is to define the contribution of neuronal-driven mTOR-dependent mechanisms of Alzheimer's disease pathogenesis by measuring cognitive behaviors, synaptic function, and vascular function.

Completed

1 I01 BX002211-01A2 (Galvan) 01/26/15–01/25/19
Veterans Administration Research and Development Merit Award
Inhibiting the TOR Pathway to Combat Alzheimer's Disease
Goals of this project are to establish the therapeutic potential for rapamycin or other TOR inhibitors in the treatment of Alzheimer's disease (AD) and to determine rapamycin's mechanisms of action in AD brain.

Role: Key Personnel

OWENS FUND 2014 (Galvan) 03/01/14-02/28/15
William & Ella Owens Medical Research Foundation
Rapamycin as a therapy for vascular damage in Alzheimer's disease
The goal of this project is to determine whether rapamycin maintains memory in AD mice by blocking Aβ-induced vessel damage.
Role: Postdoctoral Fellow

AG-NS-0726-10 (Galvan) 08/01/10-07/31/14
Ellison Medical Foundation – New Scholar Award in Aging
Neuronal mTOR in Mammalian Aging
The goal of this project is to determine the role of mTOR signaling from the nervous system in the control of aging in mammals.
Role: Key Personnel

T32 AG021890 (Austad, Strong) 11/01/10-10/31/13
NIH/NIA
Training Grant: Biology of Aging
This grant supports the training of pre-doctoral and postdoctoral fellows in aging research.
Role: Postdoctoral trainee

T32 AG029796 (Thompson, Ferrington) 03/01/08-02/29/10
NIH/NIA
Training Grant: Functional Proteomics of Aging
This grant supports the training of pre-doctoral and postdoctoral fellows in aging research.
Role: Pre-doctoral trainee