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Memberships: Society for Neuroscience
American Aging Association
International Society for Cerebral Blood Flow and Metabolism
Gerontological Society of America
International Society for Neurochemistry
International Behavioral Neuroscience Society

EDUCATION, TRAINING, APPOINTMENTS

6/94	Center for Advanced Studies in Exact Sciences University, Buenos Aires <i>Master's Thesis Advisor, Dr. Daniel Rabinovich</i> University of Buenos Aires School of Medicine Buenos Aires, Argentina	M.S., Molecular Biology
1/91-1/92	University of Buenos Aires School of Medicine Institute of Cellular Biology Department of Histology and Embryology Buenos Aires, Argentina	Undergraduate Student Research
1/92-1/94	University of Buenos Aires School of Medicine Department of Microbiology Buenos Aires, Argentina	Undergraduate Student Research
9/94-12/99	University of Chicago Committee on Virology, Department of Molecular Genetics and Cell Biology <i>Doctoral thesis advisor: Dr. Bernard Roizman</i>	Graduate Student
12/99	University of Chicago Committee on Virology, Department of Molecular Genetics and Cell Biology <i>Doctoral thesis advisor: Dr. Bernard Roizman</i>	Ph.D., Virology
01/00-08/03	Buck Institute for Research on Aging Novato, California <i>Mentor: Dr. Dale Bredesen</i>	Postdoctoral Fellow, Neuroscience

09/03-08/04	Buck Institute for Research on Aging Laboratory of Dr. Dale Bredesen Novato, California	John D. French Alzheimer's Foundation Postdoctoral Fellow
09/04-12/08	Buck Institute for Research on Aging Laboratory of Dr. Dale Bredesen Novato, California	Staff Scientist
01/09-present	University of Texas Health Science Center at San Antonio Department of Physiology Barshop Institute for Longevity and Aging Studies	Assistant Professor
11/12-present	University of Texas at San Antonio Department of Biology	Adjunct Assistant Professor
01/15- present	Department of Veterans Affairs South Texas Veterans Health Care System	Research Health Scientist G13
09/16- present	University of Texas Health at San Antonio Department of Cellular and Integrative Physiology Barshop Institute for Longevity and Aging Studies	Associate Professor (Tenured)
01/18	Department of Veterans Affairs	Research Health Scientist G14

HONORS AND AWARDS

1995 - 1997	Lucille P. Markey Scholar in Biomedical Science
2003	Scholar, National Institute on Aging Summer Institute on Aging Research
2003	John D. French Alzheimer's Foundation Fellow
2002	Eppley Foundation Award
2006	S.D. Bechtel Jr. Foundation Award
2010	Ellison Medical Foundation New Scholar Award in Aging
2020	Fellow, American Aging Association

MEMBERSHIPS AND OTHER PROFESSIONAL ACTIVITY

1990 - 1992	Teaching Assistant, Physiology II, CAECE University of Buenos Aires
1997	Teaching Assistant, Human Genetics, University of Chicago (Dr. Carole Ober)
1997 – 1998	Teaching Assistant, Genetic Mechanisms, University of Chicago (Drs. Rochelle Esposito and James Shapiro)
1998	Teaching Assistant, Human Genetics, University of Chicago (Dr. Carole Ober)
2003 .. 2010- present	Member, Society for Neuroscience; International Behavioral Neuroscience Society; American Aging Association; Gerontological Society of America
2010 – 2015	Co-leader, Nervous System Function Assessment lab, NIA/NIA San Antonio Nathan Shock Center of Excellence in the Basic Biology of Aging
2010 - present	Member, Internal Selection and Steering Committee, NIH T32 Training Program in the Biology of Aging
2010 - present	Editorial Board, <i>Aging and Disease</i>
2011 - present	Member, American Federation for Aging Research National Scientific Advisory Council
2011	Member, Argonne National Laboratory Women in Science and Technology (WIST)
2012 – 2016	Member, Scientific Advisory Board, Rapa Holdings Inc. (currently Emtora Biosciences)
2013 – 2016	Research Chair, Board of Directors, Alzheimer's Association South Texas Chapter
2014 - 2017	Co-convener, Brain Interest Group (BIG), Gerontological Society of America
2013 – 2015	Co-organizer, The Sam and Ann Barshop Institute Seminar Series

2015	Chair and Organizer of Session 4: Neuroendocrine Control of Metabolism and Aging., Barshop Symposium on Aging “ <i>Metabolism and aging: From molecular physiology to systems biology</i> ”
2013 – 2015	Co-organizer, Department of Physiology Seminar Series
2013 – present	Editorial Board member, <i>Archives of Physiology</i>
2014- present	Review Editor, <i>Frontiers in Molecular Biosciences, Protein Folding, Misfolding and Degradation</i>
2015- 2020	Co-leader, Healthspan and Functional Assessment Core, NIH/NIA San Antonio Nathan Shock Center of Excellence in the Basic Biology of Aging
2015 - 2016	Member, Scientific Program Committee, 2016 International Conference on Aging and Disease, Stanford University, CA
2016	Organizer and Chair, 2016 International Conference on Aging and Disease Session 3 “ <i>Aging, metabolism and disease</i> ”
2016	Guest Editor, Special Issue, <i>GeroScience</i> , Journal of the American Aging Association
2016	Member, Committee to implement the Chancellor-initiated University of Texas system “Moonshot” initiative to tackle Parkinson’s disease
2016 – 2017	Member, Scientific Program Committee, BRAIN & BRAINPET 2017, International Symposium on Cerebral Blood Flow, Metabolism and Function, Berlin 2017
2016 – 2017	Member, Young Investigator Committee, BRAIN & BRAINPET 2017, International Symposium on Cerebral Blood Flow, Metabolism and Function, Berlin 2017
2016 - 2020	Associate Editor, <i>Geroscience</i> – Journal of the American Aging Association
2017	Co-Organizer, 2017 Barshop Symposium on Aging ‘ <i>Sex Differences in Aging, Age- related Diseases and Interventions</i> ’
2017-2018	Member, Program Committee, 48 th Annual Meeting of the American Aging Association
2018	Elected, member of the Board of Directors of the American Aging Association
2018	Member, Executive Committee, American Aging Association
2018	Member, Editorial Board, <i>Journal of Gerontology: Biological Sciences</i>
2018	President-Elect, American Aging Association (effective 2021)
2018 - present	Principal Investigator, Biggs Institute for Alzheimer’s and Neurodegeneration Research
2019	Associate Director, Barshop Institute T32 Training Program on the Biology of Aging
2019 – present	Guest Editor, eLife Special Issue “Aging, Geroscience and Longevity”
2020 - present	Co-leader, Integrative Physiology of Aging Core, NIH/NIA San Antonio Nathan Shock Center of Excellence in the Basic Biology of Aging
2020	Co-Editor in Chief, <i>Geroscience</i> - Journal of the American Aging Association

Federal Review Panel Participation

2015 – 2018	Member, VA Neurobiology D (NURD) Study Section, Veterans Administration Research Service
2016	Ad-hoc member, NIH/CSR Special Emphasis Panel ZRG1 MDCN-T (PAR-15-358)
2017 - 2019	Ad-hoc member, NIH/CSR Cellular Mechanisms in Aging and Development (CMAD)
2018	Ad-Hoc member, VA Neurobiology C (NURC) Study Section, Veterans Administration
2018	Ad-Hoc member, NIH/CSR Special Emphasis Panel ZAG1 ZIJ-P A1
2019	Ad-Hoc Member, NIH/CSR Chronic Dysfunction and Integrative Neurodegeneration (CDIN)
2020	Ad-Hoc Member, NIH/CSR NIA-B Study Section
2020	Member, NIH RFA-NS-20-004 Neuroscience Special Emphasis Panel
2020 – 2026	Standing Member, NIH/CSR Cellular Mechanisms in Aging and Development (CMAD)

Reviewer for non-federal or foreign agencies

2004 - 2010	John D. French Alzheimer’s Foundation
2004	Italy Telethon Foundation

2004 - present	Alzheimer's Association
2009	Italian Ministry of Health/NIH
2010 - present	American Federation for Aging Research
2010 - present	National Fund for Scientific and Technological Research (FONCyT), Argentina
2011 - present	Alzheimer's Society (UK)
2012 - present	Medical Research Council (UK)
2013	William and Ella Owens Medical Research Foundation
2011 – 2015	Scientific Review Panel, Institute for the Integration of Medicine and Science/Clinical and Translational Science Awards Consortium, UT Health San Antonio
2013 - present	Scientific Review Panel, Nathan Shock Center of Excellence in the Biology of Aging Pilot Awards Program
2018 – 2020	Member, Scientific Review Panel, American Federation for Aging Research (AFAR) Breakthroughs in Gerontology (BIG) Awards
2018 - 2019	Scientific Review Panel, AFAR Breakthroughs in Gerontology (BIG) Awards Review Panel
2019	International Meeting abstract reviewer, International Society for Cerebral Blood Flow and Metabolism Annual Meeting
2019	Reviewer, San Antonio Claude D. Pepper Center Pilot Program
2017- 2020	Scientific Review Panel, FONCyT, Agencia Nacional de Promoción Científica y Tecnológica, Argentina

Reviewer for scientific journals:

2003 - 2010	American Journal of Pathology
2004 - 2005	Life Sciences
2008 – 2010	Neuroscience and Neurobehavioral Reviews
2010 – 2011	Analytical Biochemistry
2007 - present	Neurobiology of Aging
2007 – present	Journal of Alzheimer's disease
2007 – present	BBA – Molecular Basis of Disease
2008	International Journal of Developmental Neuroscience
2008 – present	Journal of Neurochemistry
2009 - present	Aging Cell
2009 – present	Neuroscience
2010 – present	Aging and Disease
2010 – present	The Journal of Gerontology: Biological Sciences
2011 - present	PLoS One
2011 - present	Journal of Neuroscience
2012	Autophagy
2012 – present	ISRN Geriatrics
2013	Archives of Physiology
2013	Molecular Neurobiology
2014 – present	Frontiers in Protein Folding, Misfolding and Degradation
2015 - present	The Journal of Developmental Neuroscience
2015 – present	Scientific Reports
2016 – present	Behavioural Brain Research
2016 – present	American Journal of Physiology-Heart and Circulatory Physiology
2018 - present	Nature
2018 - present	Nature Communications
2019	Science

ORIGINAL RESEARCH PAPERS

h-index=40 i10index=60

Total citations: 5,707

(2,841 citations since 2015)

Numbers of citations are shown only for publications with ≥ 80 citations

1. **Galvan V** and Roizman B. (1998) Herpes simplex virus 1 induces and blocks apoptosis at multiple steps during infection and protects cells from exogenous inducers in a cell-type-dependent manner. *Proc. Natl. Acad. Sci. USA* 95:3931-36. PMID: 9520470. **269 citations**
2. **Galvan V**, Brandimarti R and Roizman B. (1999) Herpes simplex virus 1 blocks caspase-3-independent and caspase-dependent pathways to cell death. *J Virol.* 73:3219-26. PMID: 10074175. **109 citations**
3. **Galvan V**, Brandimarti R, Munger J and Roizman B. (2000) Bcl-2 blocks a caspase-dependent pathway of apoptosis activated by HSV-1 infection in HEp-2 cells. *J Virol.* 74:1931-38. PMID: 10644366.
4. Zou G, **Galvan V**, Campadelli-Fiume G and Roizman B. (2000) Glycoprotein D or J delivered in trans blocks apoptosis in SK-N-SH cells induced by a herpes simplex virus 1 mutant lacking intact genes expressing both glycoproteins. *J Virol.* 74:11782-91. PMID: 11090178 **180 citations**
5. **Galvan V**, Chen S, Lu D, Koo EH and Bredesen DE. (2002) Caspase cleavage of members of the amyloid precursor family of proteins. *J Neurochem.* 82: 283-94. **111 citations**
6. **Galvan V**, Logvinova A, Sperandio S, Ichijo H and Bredesen DE. (2003) Type 1 Insulin-like growth factor receptor (IGF-IR) signaling inhibits apoptosis signal-regulating kinase 1 (ASK1). *J Biol Chem.* 278:13325-32. PMID: 12556535 **109 citations**
7. Peel AL, Sorscher N, Kim J, **Galvan V**, Chen S and Bredesen DE. (2004) Tau phosphorylation in Alzheimer's disease: Potential involvement of an APP-MAP complex. *NeuroMol. Med.* 5: 205-218. PMID: 1562682.
8. **Galvan V**, Kurakin A. and Bredesen DE. (2003) Interaction of checkpoint kinase 1 and the X-linked inhibitor of apoptosis during mitosis. *FEBS Letters* 558: 57-62. PMID: 14759516.
9. Jin K, **Galvan V**, Xie L, Mao XO, Gorostiza OF, Bredesen DE, Greenberg D. (2004) Enhanced neurogenesis in Alzheimer's disease transgenic (PDGF-APP_{Sw,Ind}) mice. *Proc Natl Acad Sci U S A.* 101: 13363-67. PMID: 15340159. **525 citations**
10. Cottrell BA, **Galvan V**, Banwait S, Gorostiza O, Lombardo CR, Williams T, Peel AL, Koo EH and Bredesen DE. (2005) A pilot proteomic study of amyloid precursor protein interactors in Alzheimer's disease. *Ann Neurol.* 58:277-89. PMID: 16049941
11. **Galvan V**, Gorostiza OF, Banwait S, Ataie M, Logvinova AV, Sitaraman S, Carlson E, Sagi SA, Chevallier N, Jin K, Greenberg DA, Bredesen DE. (2006) Reversal of Alzheimer's-like pathology and behavior in human APP transgenic mice by mutation of Asp664. *Proc Natl Acad Sci USA.* 103:7130-35. PMID: 16641106 **Recommended by F100** **259 citations**
12. Shaked G, Kummer MP, Lu DC, **Galvan V**, Bredesen DE and Koo EH. (2006) Abeta induces cell death by direct interaction with its cognate extracellular domain on APP (APP 567-624). *FASEB J* 20:1254-56. PMID: 16636103 **139 citations**
13. Wang Y, **Galvan V**, Gorostiza O, Ataie M, Jin K and Greenberg D. (2006) Vascular endothelial growth factor improves recovery of sensorimotor and cognitive deficits after focal cerebral ischemia in the rat. *Brain Res* 1115:186-93. PMID: 16928361 **97 citations**
14. Saganich MJ, Schroeder BE, **Galvan V**, Bredesen DE, Koo EH, Heinemann SF. (2006) Deficits in synaptic transmission and learning in amyloid precursor protein (APP) transgenic mice require C-terminal cleavage of APP. *J Neurosci.* 26:13428. PMID: 17192425 **122 citations**
15. **Galvan V**, Banwait S, Spilman PR, Gorostiza OF, Peel A, Sidhu G, Tang, H, Ichijo H and Bredesen DE (2007) Interaction of ASK1 and the beta-amyloid precursor protein in a stress-signaling complex. *Neurobiol dis.* 28:65-75. PMID: 17719230

16. Banwait S, **Galvan V**, Ataie M, Gorostiza O, Crippen D, Bredesen DE. (2008) C-terminal cleavage of the amyloid-beta precursor at Asp664: A switch associated with Alzheimer's disease. *J Alzheimer's dis* 13:1-16. PMID: 18334752.
17. Nguyen T, **Galvan V**, Zhang J, Bredesen DE. (2008) Signal transduction in Alzheimer disease: p21-activated kinase signaling requires C-terminal cleavage of APP at Asp664. *J Neurochem* 104: 1065-80. PMID: 17986220.
18. **Galvan V**, Zhang J, Gorostiza O, Tang H, Huang W, Banwait S, Ataie M, Bredesen DE. (2008) Long-term prevention of Alzheimer's disease-like behavioral deficits in PDAPP mice carrying a mutation in Asp664. *Beh Brain Res*. 191:246-55. PMCID: PMC2757410.
19. Kumasaka DK, **Galvan V**, Head E and Rohn TT. (2009) Caspase cleavage of the amyloid precursor protein is prevented after overexpression of bcl-2 in a triple transgenic mouse model of Alzheimer's disease. *Int J Physiol Pathophysiol Pharmacol*. 1:48-56. PMID: 20411026.
20. Tang H, Wang Y, Xie L, Mao X, Won SJ, **Galvan V**, Jin K. (2009) Effect of neural precursor proliferation level on neurogenesis in rat brain during aging and after focal ischemia. *Neurobiol Aging* 104:1065. PMID: 17644223.
20. Calheiros-Lourenço F, **Galvan V**, Corset V, Llambi F, Bredesen DE, and Mehlen P. (2009) Netrin-1 interacts with amyloid precursor protein and regulates amyloid-beta production. *Cell Death Differ*. 16:655-63. PMID: 19148186
Recommended by F1000 **89 citations**
21. Butterfield DA, **Galvan V**, Bader Lange M, Tang H, Sowell RA, Fombonne J, Gorostiza O, Zhang J, Sultana R, and Bredesen DE. (2009) *In vivo* oxidative stress in brain of Alzheimer disease transgenic mice: Requirement for methionine 35 in amyloid beta-peptide of APP. *Free Radic Biol Med*. 48:136-44. PMID: 19854267
177 citations
22. ## Zhang J, Gorostiza O, Tang H, Bredesen DE, **Galvan V**. Reversal of learning deficits in hAPP transgenic mice carrying a mutation at Asp664: A role for early experience. (2009) *Beh Brain Res* 206:202-07. PMID: 19751769
23. Jin K, Mao X, Xie L, **Galvan V**, Lai B, Wang Y, Gorostiza O, Wang X, Greenberg D. (2009) Transplantation of human neural precursor cells in matrigel scaffolding improves outcome from focal cerebral ischemia after delayed postischemic treatment in rats. *J Cereb Blood Flow and Metab*. Oct 14. PMID: 19826433.
175 citations
24. ## Spilman P, Podlutskaya N, Hart MJ, Debnath J, Gorostiza O, Bredesen D, Richardson A, Strong R and **Galvan V** (2010) Inhibition of mTOR by rapamycin abolishes cognitive deficits and reduces amyloid- β levels in a mouse model of Alzheimer's disease. *PLoS One*. 5:e9979. PMID: 20376313
Recommended by F1000 **815 citations**
25. ## Zhang J, Rao R, Spilman P, Mangada J, Xie L, Vitelli C, Gorostiza OF, Madden DT, Zeng X, Jin K, Hart MJ, Bredesen DE and **Galvan V** (2011) Endogenously EGFP-Labeled Mouse Embryonic Stem Cells. *Aging and Dis*. 2:18-29. PMCID: PMC3160738
26. Robinson RAS, Lange MB, Sultana R, **Galvan V**, Fombonne J, Gorostiza O, Zhang J, Cai J, Pierce WM, Bredesen DE, Butterfield DA. (2011) Differential expression and redox proteomics analyses of an Alzheimer disease transgenic mouse model: Effects of the amyloid-beta peptide of amyloid precursor protein. *Free Radic Biol Med*. 48:136-44. PMID: 21223993
27. Vogt DL, Thomas D, Liang M, **Galvan V**, Bredesen DE, Lamb BT and Pimplikar SW. (2011) Abnormal neuronal networks and seizure susceptibility in mice overexpressing the APP intracellular domain. *Neurobiol Aging*. Oct 12. PMID: 19828212.
110 citations
28. ## Hart MJ, Sharma MK, Liu M, Cuny GD, Glicksman MA and **Galvan V** (2012) Development of a high-throughput screen targeting caspase 8-mediated cleavage of the amyloid precursor protein. *Analyt Biochem* 421:467. PMID: 22178911.
29. ## Halloran JJ, Hussong S, Podlutskaya N, Burbank R, Austad SN, Hart MJ, Fischer K and **Galvan V**. (2012) Chronic inhibition of mammalian target of rapamycin by rapamycin modulates cognitive and non-cognitive components of behavior throughout lifespan in mice. *Neuroscience* 223:102-113. PMID: 22750207.
Recommended by F1000 **167 citations**
30. Sultana R, Robinson RA, Bader Lange M, Fiorini A, **Galvan V**, Fombonne J, Baker A, Gorostiza O, Zhang J, Cai J, Pierce WM, Bredesen DE, Butterfield A. (2012) Do proteomics analyses provide insights into

reduced oxidative stress in the brain of an Alzheimer's disease transgenic mouse model with an M631L amyloid precursor protein substitution and thereby the importance of amyloid-beta-resident methionine 35 in Alzheimer disease pathogenesis? *Antioxid Redox Signal*. 17:1507-14. PMID: 22500616.

31. ## Beauquis J, Pavia P, Pomilio C, Vinuesa A, Podlutskaya N, **Galvan V**, Saravia F. (2012) Environmental enrichment prevents astroglial pathological changes in the hippocampus of APP transgenic mice, model of Alzheimer's disease. *Exp Neurol* 239:28-37. PMID 23022919 **129 citations**
32. ## Pierce A, Podlutskaya NP, Halloran JJ, Hussong SA, Lin PY, Burbank R, Strong R, Richardson R, Hart MJ and **Galvan V** (2013) Over-expression of heat shock factor 1 phenocopies the effect of chronic inhibition of TOR by rapamycin and is sufficient to ameliorate Alzheimer's-like deficits in mice modeling the disease. *J Neurochem*. 194:880-893. PMID: 23121022.
33. ## Lin A, Halloran JJ, Burbank RR, Korde S, Zheng W, Hussong SA, Podlutskaya N, Strong R, Richardson A, Hart MJ, Fox PT, Lechleiter J, **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*. Jun 26. PMID: 23801246. **134 citations**
34. ## Lin A, Pulliam D, Sathyaseelan D, Halloran JJ, Burbank RR, Hussong SA, Bresnen A, Soundararajan A, Muir E, Duong TQ, Viscomi C, Zeviani M, Richardson AG, Van Remmen H, Fox PT, **Galvan V** (2013) Decreased *in vitro* mitochondrial function is associated with enhanced brain metabolism, blood flow and memory in *Surf1*-deficient mice. *J Cereb Blood Flow Metab*. PMID: 23838831. **Recommended by F1000**
35. Sun YX, Ji X, Mao X, Xie L, Jia J, **Galvan V**, Greenberg DA and Jin K (2014). Differential activation of mTOR complex 1 signaling in human brain with mild to severe Alzheimer's disease. *J Alz Dis*. 38: 437-44. PMID: 23979023.
36. Rodriguez KA, Dodds SG, Strong JR, **Galvan V**, Sharp D and Buffenstein S (2014). Divergent tissue and sex effects of rapamycin on the proteasome-chaperone network of old mice. *Frontiers Mol Neurosc*. 7:83. PMID: 25414638.
37. ## Beauquis J, Vinuesa A, Pomilio C, Pavia P, **Galvan V** and Saravia F (2014) Neuronal and glial alterations, increased anxiety, and cognitive impairment before hippocampal amyloid deposition in PDAPP mice, model of Alzheimer's disease. *Hippocampus* 24:257-69. PMID: 24132937. **82 citations**
38. Hurez V, Dao V, Liu A, Pandeswara S, Gelfond J, Sun L, Bergman M, Orihuela J, **Galvan V**, Padron A, Drerup J, Liu Y, Hasty P, Sharp ZD, Curiel TJ. (2015) Chronic mTOR inhibition in mice with rapamycin alters T, B, myeloid and innate lymphoid cells and gut flora and prolongs life of immune deficient mice. *Aging Cell* 14:965. PMID: 26315673.
39. Lin A, Jahrling J, Romero P, Bakshi V, **Galvan V**, Richardson A. (2015) Rapamycin rescues vascular, metabolic and learning deficits in apolipoprotein E4 transgenic mice with pre-symptomatic Alzheimer's disease. *J Cereb Blood Flow Metab* 37:217. PMID: 26721390.
40. Pomilio C, Pavia P, Gorojod RM, Vinuesa A, Alaimo A, **Galvan V**, Kotler ML, Beauquis J, Saravia F. (2016) Glial alterations from early to late stages in a model of Alzheimer's disease: Evidence of autophagy involvement in A β internalization. *Hippocampus* 26:194-210. PMID: PMC5467976.
41. Spilman PR, Corset V, Gorostiza O, Poksay KS, **Galvan V**, Zhang J, Rao R, Peters-Libeu C, Vincelette J, McGeehan A, Dvorak-Ewell M, Beyer J, Campagna J, Bankiewicz K, Mehlen P, John V, Bredesen DE (2016) Netrin-1 interrupts amyloid- β amplification, increases sA β PP α *in vitro* and *in vivo*, and improves cognition in a mouse model of Alzheimer's disease. *J Alz Dis*. 52: 223-42. PMID: 27060954.
42. Cremers CM, Knoefler D, Gates S, Martin N, Dahl J, Lempart J, Xie L, Chapman MR, **Galvan V**, Southworth DR, and Jakob U. (2016) Polyphosphate: A Conserved Modifier of Amyloidogenic Processes. *Mol Cell*, 63:768-80. PMID: 27570072.
43. ## Castillo-Carranza DL, Nilson AN, Van Skike CE, Jahrling JB, Patel K, Garach P, Gerson JE, Sengupta U, Abisambra J, Nelson P, Troncoso J, Ungvari Z, **Galvan V** and Kaye R (2017) Cerebral microvascular accumulation of tau oligomers in Alzheimer's disease and related tauopathies. *Aging Dis*. 8: 257-266. PMID: 28580182.
44. Tarantini S, Fulop GA, Kiss T, Farkas E, Zölei-Szénási D, **Galvan V**, Toth P, Csiszar A, Ungvari Z, Yabluchanskiy A. (2017) Demonstration of impaired neurovascular coupling responses in mouse models of

Alzheimer's disease using functional laser speckle contrast imaging. *GeroScience*. Jun 3. doi: 10.1007/s11357-017-9980. PMID: PMC5636768.

45. Csiszar A, Tarantini S, Fülöp GA, Kiss T, Valcarcel-Ares MN, **Galvan V**, Ungvari Z, Yabluchanskiy A. (2017) Hypertension impairs neurovascular coupling and promotes microvascular injury: role in exacerbation of Alzheimer's disease. *GeroScience*. Aug 29. PMID: 28853030.
46. Marinesco S, Ungvári Z, **Galvan V**. (2017) Age-related impairment of metabo-vascular coupling during cortical spreading depolarization. *Am J Physiol Heart Circ Physiol*. 2017 Aug 25: ajpheart.00514.2017. doi: 10.1152/ajpheart.00514.2017. PMID: 28842440.
47. Van Skike CE, Jahrling JB, Olson AB, Sayre NL, Hussong SA, Ungvari ZI, Lechleiter JD, **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*. PMID: 29351469.
Article selected as American Physiological Society's APSselect 'Best Articles'
48. ## Jahrling JB, Lin AL, DeRosa N, Hussong SA, Van Skike CE, Girotti M, Javors M, Zhao Q, Maslin LA, Asmis R, **Galvan V**. (2018) mTOR Drives Cerebral Blood Flow and Memory Deficits in LDLR^{-/-} Mice Modeling Atherosclerosis and Vascular Cognitive Impairment. *J Cereb Blood Flow Metab*. PMID: 28511572.
49. Zhang SY, Clark NE, Freije CA, Pauwels E, Taggart AJ, Okada S, Mandel H, Garcia P, Ciancanelli MJ, Biran A, Lafaille FG, Tsumura M, Cobat A, Luo J, Volpi S, Zimmer B, Sakata S, Dinis A, Ohara O, Garcia Reino EJ, Hasek M, Holloway SP, McCammon K, Hussong SA, DeRosa N, Van Skike CE, Katolik A, Lorenzo L, Hyodo M, Faria E, Halwani R, Fukuhara R, Smith GA, **Galvan V**, Damha MJ, Al-Muhsen S, Itan Y, Boeke JD, Notarangelo LD, Studer L, Kobayashi M, Diogo L, Fairbrother WG, Abel L, Rosenberg BR, Hart PJ, Etzioni A, Casanova JL. (2018) Inborn errors of RNA lariat metabolism in humans with brainstem viral infection. *Cell* 172:952. PMID: 29474921.
50. Lee HJ, Feliers D, Barnes JL, Oh S, Choudhury GG, Diaz V, **Galvan V**, Strong R, Nelson J, Salmon A, Keivil CG, Kasinath BS. (2018) Hydrogen sulfide ameliorates aging-associated changes in the kidney. *Geroscience* 40:163. PMID: 29717417.
51. Valcarcel-Ares MN, Tucsek Z, Kiss T, Giles CB, Tarantini S, Yabluchanskiy A, Balasubramanian P, Gautam T, **Galvan V**, Ballabh P, Richardson A, Freeman WM, Wren JD, Deak F, Ungvari Z, Csiszar A. (2019) Obesity in aging exacerbates neuroinflammation, dysregulating synaptic function-related genes and altering eicosanoid synthesis in the mouse hippocampus: Potential role in impaired synaptic plasticity and cognitive decline. *J Gerontol A Biol Sci Med Sci* 74:290. PMID: 29893815
52. Van Skike CE, Lin AL, Roberts Burbank R, Halloran JJ, Hernandez SF, Cuvillier J, Soto VY, Hussong SA, Javors MA, Hart MJ, Fischer KE, Austad SN, **Galvan V** (2019) mTOR drives cerebrovascular, synaptic, and cognitive dysfunction in normative aging. *Aging Cell* [Epub ahead of print] PMID: 31693798.
53. Wen B, Li E, Ustiyani V, Wang G, Guo M, Na CL, Kalin GT, **Galvan V**, Su Y, Weaver TE, Kalin TV, Whitsett JA, Kalinichenko VV (2020) In vivo generation of lung and thyroid tissues from embryonic stem cells using blastocyst complementation. *Am J Respir Crit Care Med* [Online ahead of print] PMID: 32877203.
54. Nyul-Toth A, Tarantini S, Kiss T, Toth P, **Galvan V**, Tarantini A, Yabluchanskiy A, Csiszar A, Ungvari Z (2020) Increases in hypertension-induced cerebral microhemorrhages exacerbate gait dysfunction in a mouse of Alzheimer's disease. *Geroscience* [Online ahead of print] PMID: 32844283.
55. Dorigatti AO, Hussong SA, Hernandez SF, Sills AM, Salmon AB, **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* [Online ahead of print] PMID: 33063253.

REVIEW AND PERSPECTIVE/EDITORIAL ARTICLES

56. **Galvan V**. Adult neurogenesis and Alzheimer's disease. *BioJournal* 2005; 1:1-20.
57. **Galvan V** and Jin K. 2006. The role of vascular endothelial growth factor in neurogenesis in adult brain. *Mini Rev in Med Chemistry*. 6:667-669. PMID: 16787377.

58. * **Galvan V**, Bredesen DE. 2007. Neurogenesis in the adult brain: implications for Alzheimer's disease. *CNS & Neurol Dis. Drug Targets*. 6: 303-310. PMID: 18045158.
59. **Galvan V**, and Jin K. 2007. Endogenous Neural Stem Cells in Adult Brain. *J of Neuroimm Pharm*. 2: 236-242. PMID: 18040856.
60. **Galvan V**, and Jin K. 2007. Neurogenesis in the aging brain. *Clin Interv in Aging* 2:605-10. PMID: 18225461
107 citations
61. Bredesen DE, John V and **Galvan V**. 2010. Importance of the caspase cleavage site in amyloid precursor protein. *J Alzheimers Dis*. 22:57-63. PMID: 20847422.
62. Richardson A, **Galvan V**, Lin AL, Oddo S. (2014) How longevity research can lead to therapies for Alzheimer's disease: The rapamycin story. *Exper Gerontol*. PMID: 25481271. **91 citations**
63. Jahrling J and **Galvan V** (2015) TOR-dependent cerebrovascular aging in Alzheimer's disease. *Curr Trends Neurol*. 8:231.
64. **Galvan V**. (2016) Vascular mTOR-dependent mechanisms linking the control of aging to Alzheimer's disease. *Biochimica et Biophysica Acta (BBA): Molecular Basis of Disease* Special Issue: 'Vascular Contributions to Cognitive Impairment and Dementia (VCID)' 1862:992-1007. PMCID: PMC6762019. Invited contribution to Special Issue of *BBA - Molecular Basis of Disease "Vascular Contributions to Cognitive Impairment and Dementia"* (VCID), edited by M. Paul Murphy, Roderick A. Corriveau and Donna M. Wilcock.
65. Csiszar A, Tarantini S, Fulop GA, Kiss T, Valcarcel-Ares MN, **Galvan V**, Ungvari A, Yabluchanskiy A (2017) Hypertension impairs neurovascular coupling and promotes microvascular injury: Role in exacerbation of Alzheimer's disease. *Geroscience*. PMCID: PMC5636770.
66. Van Skike, CE and **Galvan V**. (2018) A perfect sTORM: The role of the mammalian target of rapamycin (mTOR) in cerebrovascular dysfunction of Alzheimer's disease. *Gerontology* 64(3):205. PMCID: PMC5876078.
67. Ungvari Z, Tarantini S, Donato AJ, **Galvan V**, Csiszar A. (2018) Mechanisms of vascular aging. *Circ Res* 123:849. PMCID: PMC6248882. **90 citations**
68. Kaeberlein M and **Galvan V**. (2019) Rapamycin and Alzheimer's disease: Time for a clinical trial? *Sci Transl Med* 11: eaar4289. PMCID: PMC6762017.
69. **Galvan V** and Van Skike C. (2019) mTOR in cerebrovascular disease. *Aging* 11:1331-1332. PMCID: PMC6428111.
70. Van Skike, CE and **Galvan V**. (2020) Cerebrovascular dysfunction links aging to neurological disease. *Aging* 12:13847. PMCID: PMC7425428.
71. **Galvan V** and Quarleri J (2020) An evaluation of the SARS-CoV-2 epidemic 16 days after the end of social confinement in Hungary. *Geroscience* 31:1-3. PMCID: PMC7394474.

BOOK CHAPTERS

1. Greenberg DA, Jin K, **Galvan V**, Bredesen DE: Neurogenesis and Alzheimer's disease. In Sun M-K (ed), *Research Progress in Alzheimer's Disease and Dementia, Vol. 1*. New York, Nova Science Publishers, 2007:177-190.
2. **Galvan V** Adult neurogenesis and Alzheimer's disease in K Jin, *Endogenous neural stem cells and brain diseases*. Research Signpost, 2009.
3. **Galvan V** Neurogenesis and aging in K Jin, *Endogenous neural stem cells and brain diseases*. Research Signpost, 2009.

TALKS AND PRESENTATIONS

(* , selected presentations to the lay public)

1. Nessi A, Korzin EA, Vazquez S, **Galvan V**, Slaen AP. Pituitary physiological and ultrastructural changes during ageing. Proceedings of the III International Pituitary Congress, 1993. Marina del Rey, CA.

2. **Galvan V**, Rabinovich RD, Gutierrez P, Gomez Carrillo M, Marquina S, Libonatti O. Stimulation of HIV-1 culture passage and its effect on the gp120 V3 loop phenotype. Proceedings of the IX National Congress on Virology, 1993. Tucuman, Argentina.
3. **Galvan V**, Ichijo H, Bredesen DE. IGF-IR phosphorylates and inhibits apoptosis-signal regulating kinase1 (ASK1). Proceedings of the AARC Special Conference in Cancer Research. Apoptosis and cancer: Basic Mechanisms and Therapeutic Opportunities in the Post-Genomic Era. 2002, Waikoloa, Hawaii.
4. **Galvan V**, Saganich M, Schroeder B, Gorostiza OF, Jin K, Logvinova A, Banwait S, Greenberg D, Mucke L, Heinemann S, Koo EH, Bredesen DE. C-terminal cleavage of APP is required for AD-like pathogenesis in a transgenic mouse model. 9TH International Conference on Alzheimer's disease and Related Disorders. Philadelphia, Pennsylvania, U.S. July 17-22, 2004.
5. **Galvan V**, Saganich M, Schroeder B, Gorostiza OF, Jin K, Logvinova A, Banwait S, Greenberg D, Mucke L, Heinemann S, Koo EH, Bredesen DE. Reversal of AD-like pathology in APP transgenic mice by mutation of Asp664 in APP. Annual Meeting of the Society for Neuroscience, Neuroscience 2004, San Diego, CA, U.S. October 23-27, 2004.
6. * **Galvan V**. Understanding Alzheimer's disease. Healthy Aging Symposium, Marin County Division of Aging, Marin Health and Human Services, County of Marin, CA, U.S. May 12, 2005.
7. * **Galvan V**. Caught by the tail – Understanding early Alzheimer's disease. Marin Bar Association Annual Meeting – Marin County, CA, U.S. July 27, 2005.
8. **Galvan V**, Gorostiza O, Zhang J, Banwait S, Ataie M, Sitaraman S, Crippen D, Sagi S, Chevallier N, Jin K, Greenberg D, Bredesen DE. A key role of the C-terminal cleavage of APP in Alzheimer's disease. 10TH International Conference on Alzheimer's disease and Related Disorders. IFEMA Feria de Madrid, Madrid, Spain. July 15-20, 2006.
9. **Galvan V**, Gorostiza O, Zhang J, Bredesen DE. The role of cleavage of APP at Asp664 in Alzheimer's disease. Second International Symposium on Dependence Receptors. Buck Institute for Age Research, Novato, CA, U.S. September 14-16, 2006.
10. **Galvan V**. Resisting Abeta toxicity: The role of the C-terminal cleavage of APP in Alzheimer's disease. Seminar Series, Geriatric Education & Clinical Center (GRECC), VA Palo Alto, Stanford University, Palo Alto, California. November 1, 2006.
11. **Galvan V**, Gorostiza O, Zhang J, Tang H, Bredesen DE. Mild learning deficits develop with age in hAPP(Sw,Ind) transgenic mice carrying a D664A mutation. Bay Area Neuroscience Gathering, SF Bay Area Society for Neuroscience Chapter. January 19, 2007. San Francisco, California.
12. * **Galvan V**. New perspectives on Alzheimer's disease. Rotary Club of Novato, January 19, 2007. Novato, California.
13. **Galvan V**. Resisting Abeta toxicity: The role of the C-terminal cleavage of APP in Alzheimer's disease. Seminar Series, Institute on Brain Aging and Dementia, Department of Neurobiology and Behavior, University of California, Irvine, Irvine, California. April 26, 2007.
14. * **Galvan, V**. *A Giant Step for Mousekind: How a point mutation rescues mice from Alzheimer's disease*. Sonoma County Alzheimer's Task Force Conference. Santa Rosa, California. May 16, 2007.
15. **Galvan, V**. and Bredesen D.E. *The role of the C-terminal cleavage of APP in Alzheimer's disease*. Alzheimer's Research Symposium. UC Davis Alzheimer's Disease Center. Stanford University. June 5th, 2007.
16. **Galvan V**. and Bredesen D.E. *New perspectives on Alzheimer's disease: starting to unravel the pathways of Abeta toxicity in vivo*. 9th Argentine Congress of Neuropsychiatry, 5th Latinamerican Congress of Neuropsychiatry, 10th Argentine Alzheimer's Disease Meeting "Prevention in Neuropsychiatry". September 2007, Buenos Aires, Argentina.
17. **Galvan V**. Gorostiza O, Zhang J, Banwait S, Huang W, Ataie M, Crippen D, Ataie D, Bredesen DE. *Long-term prevention of behavioral deficits in PDAPP mice carrying a mutation in Asp664*. Annual Meeting of the Society for Neuroscience, Neuroscience 2007, San Diego, CA. November 3-7, 2007.
18. **Galvan V**. *New Perspectives on Alzheimer's disease*. Department of Physiology Seminar Series, University of Texas Health Science Center at San Antonio, February 19, 2008.

19. **Galvan V.** *New Perspectives on Alzheimer's disease.* Institut Federatif de Recherche Lyon-Est, Lyon, France, March 12th, 2008.
20. **Galvan V.** Gorostiza O, Zhang J, Banwait S, Huang W, Ataie M, Crippen D, Ataie D, Bredesen DE. Long-term prevention of behavioral deficits in PDAPP mice carrying a mutation in Asp664. Keystone Simposia Meeting on Alzheimer's Disease, Keystone, CO. March 24 - 29, 2008.
21. **Galvan V.** *Identifying and dissecting pathways of amyloid-beta toxicity in Alzheimer's disease.* Del E. Webb Neuroscience, Aging and Stem Cell Research Center Seminar Series, Burnham Institute, San Diego, CA. May 16th, 2008.
22. **Galvan V.** *New perspectives on Alzheimer's disease.* College of Pharmacy Seminar Series, Touro University, Vallejo, CA. August 7th, 2008.
23. **Galvan V.** *Unraveling pathways of Aβ toxicity in vivo.* 10th Argentine Congress of Neuropsychiatry, 6th Latinamerican Congress of Neuropsychiatry, 11th Argentine Alzheimer's Disease Meeting: Prevention in Neuropsychiatry. September 3-7 2008, Buenos Aires, Argentina.
24. **Galvan, V.** Pathways of amyloid-beta toxicity: Potential novel targets for intervention and emerging new therapies in Alzheimer's disease. Experimental Biology 2009 - American Society for Pharmacology and Experimental Therapeutic. April 19, 2009, New Orleans, LA.
25. Spilman P, Fernandez E, Gorostiza O, Zhang J, Podlutskaya N, Bredesen DE, Strong JR, **Galvan V.** Caloric restriction mimetics for the treatment of Alzheimer's disease. 11TH International Conference on Alzheimer's disease and Related Disorders. Vienna, Austria, July 15th, 2009
26. Spilman P, Strong JR, Gorostiza O., Fernandez E, Podlutskaya N, Bredesen DE, **Galvan V.** Caloric restriction mimetics for the treatment of Alzheimer's disease. Annual Meeting of the Society for Neuroscience, Neuroscience 2009. Chicago, IL October 17-21, 2009.
27. **Galvan, V.** mTOR as a regulator of aging-dependent neurodegeneration: Studies in a mouse model of Alzheimer's disease. 2010 Nathan Shock Conference on Aging. Bandera, TX. October 14-17.
28. **Galvan, V.** mTOR as a regulator of aging-dependent neurodegeneration: Studies in a mouse model of Alzheimer's disease. Gerontological Society of America, Annual Scientific Meeting. GSA's Biological Sciences 2010, The Interface of Aging and Disease. New Orleans, LA. November 18-22.
29. **Galvan, V.** Discussant. Investigators Workshop on Epilepsy in Alzheimer's disease, American Epilepsy Society Meeting, San Antonio, TX. December 3-7, 2010.
30. **Galvan V,** Halloran JJ, Podlutskaya, N and Pierce A. Signaling through mTOR and the heat shock response in cognitive aging. 40th American Aging Association Annual Meeting, Raleigh, NC. June 3-6, 2011.
31. Podlutskaya N, Halloran JJ, Hart MJ, Spilman P, Pierce A and **Galvan V.** mTOR regulates chaperone networks and cognitive outcomes in mice modeling Alzheimer's disease. Alzheimer's Association International Conference, Paris, France. July 16-21, 2011.
32. **Galvan, V.** mTOR as a regulator of aging-dependent neurodegeneration: Studies in a mouse model of Alzheimer's disease. GRECC Grand Rounds, Audie L. Murphy VA Hospital, San Antonio, TX. October 20, 2011.
33. * **Galvan, V.** Aging and Alzheimer's disease. Alzheimer's research update for the Alzheimer's Association membership and national leadership, Barshop Institute, San Antonio, Texas. February 9, 2012.
34. **Galvan, V.** TOR as a regulator of brain aging: Studies of vascular function in a mouse model of Alzheimer's disease. 41st Annual Meeting of the American Aging Association, Fort Worth, TX. June 4, 2012.
35. * **Galvan, V.** A leap towards treatments: Updates on Alzheimer's research. Canopus Club, San Antonio Country Club, San Antonio, Texas June 27, 2012
36. **Galvan V,** Lin A, Halloran J, Burbank R, Hussong SA, Podlutskaya N, Fox PT, Richardson, A, Hart MJ. TOR and nitric oxide as regulators of vascular function in a mouse model of Alzheimer's disease. Annual Meeting of the Society for Neuroscience, Neuroscience 2012, Oct 13-17 2012, New Orleans.
37. **Galvan V.** TOR as a regulator of brain aging: Studies of vascular function in a mouse model of Alzheimer's disease, Fall Biology Seminar Series, October 22 2012, Trinity University, San Antonio, TX.
38. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR as a regulator of brain aging: Studies in a mouse model of Alzheimer's disease. 11th International Alzheimer's and Parkinson's Diseases Congress (AD/PD), March 6-10 2013, Florence, Italy.

39. **Galvan V.** TOR and NO as regulators of brain vascular function in a mouse model of AD. Neurobehavioral Research Colloquium Series, Institute for Neuroscience, University of Texas at Austin, Austin, TX. April 24, 2013.
40. * **Galvan V.** A leap towards treatments: Unraveling the mechanisms that link aging to Alzheimer's disease. University of Texas Retired Faculty Group Association Luncheon, Barshop Institute, San Antonio, TX. May 5 2013.
41. * **Galvan V.** A leap towards treatments: Unraveling the mechanisms that link aging to Alzheimer's disease. University of Texas Planned Giving Council, Austin, TX. June 6, 2013.
42. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as regulators of brain vascular function in a mouse model of Alzheimer's disease. Department of Physiology Seminar Series, University of Texas Health Science Center at SA. October 14, 2013.
43. * **Galvan V.** A leap towards treatments: Unraveling the mechanisms that link aging to Alzheimer's disease. Age and Engage Conference, Austin TX, November 7 2013.
44. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as regulators of brain vascular function in a mouse model of AD. The Gerontological Society of America's 66th Annual Scientific Meeting, New Orleans, LA. November 20-24, 2013.
45. * **Galvan V.** A leap towards treatments: Unraveling the mechanisms that link aging to Alzheimer's disease. Alzheimer's Association Research Report for membership and national Leadership, Barshop Institute, February 27 2014.
46. * Bower J. **Galvan V.** Fontanini A. Engaged brains: What do we really know? SXSW Interactive 2014, Austin, TX. March 2014.
47. **Galvan V.** Hussong SA, Halloran JJ, Burbank R, Lin A, Hart MJ. Cell non-autonomous control of metabolism by neuronal mTOR. Barshop Institute Seminar Series, University of Texas Health Science Center at San Antonio. March 12, 2014.
48. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as regulators of brain vascular function in a mouse model of AD. Neuroscience Seminar Series, Department of Pharmacology, University of Texas Health Science Center at San Antonio, San Antonio, TX. April 16, 2014.
49. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as Regulators of Brain Vascular Function in Rodent Models of Aging and AD. "The Biology of Aging: Novel Drug Targets for Neurodegenerative Disease" Symposium, New York Academy of Sciences, New York, NY. May 9, 2014.
50. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as regulators of brain vascular function in a mouse model of AD. A Scientific Symposium Honoring Dr. Bernard Roizman: Celebrating Six Decades of Research, Teaching and Mentorship. The University of Chicago Biological Sciences Division, Chicago, IL. May 23-24, 2014.
51. * **Galvan V.** Reason to Hope: Upcoming treatments for Alzheimer's disease. 45h Annual Alzheimer's Association "Reason to Hope", Lockhill Selma, TX. June 11, 2014.
52. *Presenter and Chair* **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as regulators of brain vascular function in a mouse model of AD. Alzheimer's Association International Conference, Copenhagen, Denmark. July 13-15, 2014.
53. **Galvan V.** TOR and NO as regulators of brain vascular function in a mouse model of AD. Fall Biology Seminar Series, September 19 2014, Trinity University, San Antonio, TX.
54. **Galvan V.** TOR in Brain Aging and Age-Associated Neurological Disease. *A Symposium on Healthy Aging in People and Their Pets.* University of Washington, Seattle. October 28, 2014.
55. **Galvan V.** Lin A, Hussong SA, Halloran JJ, Burbank R, Hart MJ, Fox PT. TOR and NO as Regulators of Brain Vascular Function in Rodent Models of Aging and Alzheimer's disease. 2014 International Conference on Aging and Disease (ICAD), Beijing, China. November 1-2, 2014.
56. **Galvan V.** Lin A, Hussong SA, Jahrling J, DeRosa N, Asmis R, S and Fischer K. A key role of TOR in age- and disease-associated brain vascular dysfunction. 9th Brain Research Conference, Washington D.C. November 14, 2014.
57. **Galvan V.** Mechanisms of brain aging. *Co-convenor and speaker,* Brain Interest Group meeting, The Gerontological Society of America's 67th Annual Scientific Meeting, Washington DC November 4-9, 2014.

58. *Presenter and Chair Galvan V.* TOR as a key regulator of brain vascular function in mouse models of Alzheimer's. Galvan V, Lin A, Hussong SA, Sayre N, Halloran JJ, Burbank S, Austad S, Fischer K, Lechleiter J, Asmis R. *Neuroscience 2014*. Annual meeting of the Society for Neuroscience. Washington D.C. November 18, 2014.
59. **Galvan V.** A key role of TOR in age- and disease-associated brain vascular dysfunction. South Texas Veterans Administration GRECC Research Forum, Audie L. Murphy VA Hospital, San Antonio, TX. December 5, 2014.
60. **Galvan V.** TOR-dependent pathways controlling brain aging and brain disease. Department of Biology Seminar Series, University of Alabama at Birmingham, Birmingham, AL. February 4, 2015.
61. * **Galvan V.** A leap towards treatments. 2015 Alamo Area Home Care Council, San Antonio, TX. February 11, 2015.
62. **Galvan V.** Non-cell Autonomous Control of Metabolism and Aging by Neuronal mTOR Signaling. 44th Annual Meeting of the American Aging Association, Marina del Rey, CA. May 30-June 1 2015.
63. **Galvan V.** TOR-dependent pathways controlling brain aging and brain disease. XXVIIth International Symposium on Cerebral Blood Flow, Metabolism and Function, Brain & Brain PET Conference. Vancouver, June 27-30, 2015.
64. * **Galvan V.** "A Leap Toward a Treatment for Alzheimer's Disease," Texas Public Radio's inaugural *Think Health Science* event, University of Texas Health Science Center, September 9 2015.
65. **Galvan V.** Neurovascular mechanisms of TOR-dependent brain aging in neurological disease Department of Neurology and Mitchell Center for Neurodegenerative Disorders Seminar Series, University of Texas Medical Branch, Galveston TX. September 28, 2015.
66. **Galvan V.** Two sides to the story: TOR-dependent neurovascular dysfunction in AD and related dementias, Department of Physiology Seminar Series, University of Texas Health Science Center at San Antonio, November 9, 2015.
67. **Galvan V.** Brain TOR-dependent mechanisms linking aging to dementia. Tea and Biscuits Neuroscience Seminar Series. University of Texas Health Science Center at San Antonio, January 26, 2016.
68. * **Galvan V.** Alzheimer's as a disease of aging: Understanding the greatest risk. *Age and Engage: Research Advances in Healthy Aging*. New Braunfels, TX, March 2, 2016.
69. * **Galvan V.** Alzheimer's as a disease of aging: Understanding the greatest risk. Can We Talk? Women's organizations coalition in San Antonio, Texas. San Antonio, March 9 2016.
70. **Galvan V.** Age-associated neuronal and vascular dysfunction as drivers of Alzheimer's disease. Oklahoma Medical Research Foundation Research Forum Seminar. Oklahoma City, March 17th 2016.
71. **Galvan V.** Neuronal and vascular TOR-dependent mechanisms linking aging to dementia. Thirteenth International Symposium on Neurobiology and Neuroendocrinology of Aging. July 17–22, 2016, Bregenz, Austria.
72. *Presenter and Chair Galvan V.* TOR As a Key Regulator of Neuronal and Brain Vascular Function in Mouse Models of Alzheimer's Disease. Alzheimer's Association International Conference, Toronto, Canada. July 24-19, 2016.
73. *Presenter and Chair Galvan V.* Non-cell autonomous control of metabolism by neuronal mTOR. 2016 ISOAD International Conference on Aging and Disease, Stanford University, CA, 2-3 October 2016.
74. *Presenter and Chair Galvan V.* TOR as a key regulator of neural and neurovascular function in mouse models of Alzheimer's disease. Neuroscience 2016, San Diego, CA, November 12-16, 2016.
75. **Galvan V.** TOR-dependent neuronal and vascular aging as drivers of Alzheimer's disease. Symposium: mTOR and Aging. The Gerontological Society of America's 68th Annual Scientific Meeting, New Orleans, November 16-20, 2016.
76. **Galvan V.** TOR as a key regulator of neural and neurovascular function in mouse models of Alzheimer's disease. *Symposium: New horizons in neurovascular dysfunction in aging*. BRAIN & BRAINPET 2017, International Symposium on Cerebral Blood Flow, Metabolism and Function, Berlin April 1-4, 2017.
77. *Chair Galvan V.* "Grantcraft" *The art of writing a successful grant proposal*. Teaching Course, BRAIN & BRAINPET 2017, International Symposium on Cerebral Blood Flow, Metabolism and Function, Berlin 2017. April 1-4, 2017.

78. **Galvan V.** *Mechanisms linking aging to Alzheimer's disease.* Science of Successful Aging Summit, University of Wisconsin School of Medicine and Public Health, Madison, WI. April 18-1, 2017.
79. **Galvan V.** *Alzheimer's: Understanding and tackling the greatest risk.* National Research Week, Research Service, South Texas Veterans Health Care System. May 15-19. 2017.
80. **Galvan V.** *Aging Research.* San Antonio Bar Association Meeting. June 23 2017.
81. **Galvan V.** *Mechanisms linking aging to Alzheimer's disease.* 2nd Annual Symposium on Aging Research, UT Health Consortium on Aging, UT Health Houston/UT Medical Branch, June 27-28, 2017.
82. **Galvan V.** *Mechanisms linking aging to Alzheimer's disease.* 2017 Vail Scientific Summit, Steadman Phillipon Research Institute, Vail, August 23-26, 2017.
83. **Galvan V.** TOR-dependent neuronal and vascular aging as drivers of Alzheimer's disease. Department of Medical Physiology Seminar Series, Texas A&M University HSC College of Medicine, Temple, TX, November 7, 2017.
84. **Presenter and Chair Galvan V.** *Neuronal and vascular TOR-dependent mechanisms linking aging to Alzheimer's disease.* Annual Meeting of the Microcirculatory Society, Experimental Biology 2018. April 21-25, 2018.
85. **Galvan V.** *Cognitive healthspan in common experimental models of aging*, Nathan Shock Center Directors' Summit and AGE Pre-Meeting section "How healthy is the healthspan concept?", June 27-28 2018.
86. **Co-Organizer and Chair,** Session 1: Interventions. 47th Annual meeting of the American Aging Association, Philadelphia June 27-July 1 2018.
87. **Galvan V.** *Brain microvascular mechanisms linking aging to Alzheimer's disease.* World Congress on Microcirculation, September 11-14, 2018, Vancouver, Canada.
88. **Galvan V.** *Neurovascular mechanisms linking aging to Alzheimer's disease.* Neurobiology Symposium, University of Texas San Antonio College of Science Research Conference. October 5 2018, San Antonio, TX.
89. **Galvan V.** *Targeting mTOR to maximize brain healthspan.* American Federation for Aging Research (AFAR) Annual Awards Dinner and Symposium, November 6 2018, New York, NY
90. **Galvan V.** *Blood-brain barrier breakdown in Alzheimer's disease and other dementias.* LXIII Reunion Annual de la Sociedad Argentina de Investigacion Clinica. November 14-17, 2018. Mar del Plata, Argentina.
91. **Galvan V.** *Mechanisms of brain vascular dysfunction in Alzheimer's disease.* South Texas Alzheimer's Conference, Glenn Biggs Institute for Alzheimer's and Neurodegenerative Diseases. February 24-26, 2019. San Antonio, TX.
92. **Galvan V.** *Mechanisms of brain vascular dysfunction in Alzheimer's disease.* Department of Molecular and Cellular Biology Seminar Series, University of Arizona. March 19, 2019. Tucson, Arizona.
93. * **Galvan V.** Participant, discussion panel "*From Bench to Bedside*", The Health Cell San Antonio, Magnolia Halle, June 11, 2019, San Antonio, TX.
94. **Galvan V.** *Mechanisms linking aging to Alzheimer's disease.* 2019 Orentreich Foundation Symposium, October 16-18, New Paltz, New York.
95. **Galvan V.** *Vascular mechanisms of Alzheimer's disease.* Department of Neuroscience and Regenerative Medicine Fall 2019 Seminar Series, Augusta University Medical College of Georgia, October 28, Augusta, GA.
96. **Galvan V.** *Mechanisms of neuroprotection by mTOR inhibitors.* GSA 2019 Gerontological Society of America Annual Meeting, November 14, 2019, Austin, TX.
97. **Galvan V.** *Vascular mechanisms of Alzheimer's disease.* Louisiana University Seminar Series, Department of Molecular and Cellular Physiology, Louisiana State University, Shreveport LA. December 4, 2019.
98. **Galvan V.** *Mechanisms of aging that drive age-associated neurodegenerations.* Annual Meeting of the American Aging Association, held virtually as AGE Goes Virtual, Induction as Fellow of the American Aging Association. June 17-19, 2020.

99. **Galvan V.** A case for a clinical trial on effects of rapamycin on Alzheimer's Disease (mechanisms of neuroprotection), *NIA Workshop on mTOR Signaling Pathway, mTOR Inhibitors and Aging: Considerations for Clinical Trials* November 17, 2020.

INTELLECTUAL PROPERTY - PATENTS AND APPLICATIONS

1. US Patent 8329653 B2 "Compositions and methods for suppression of amyloid plaque formation associated with neurodegenerative disorders". Patrick Mehlen, Dale Bredesen, Filipe Calheiros-Lourenco, **Veronica Galvan**.
2. Patent Cooperation Treaty US 2005-013761 "Transgenic Models of Alzheimer's Disease and Uses Thereof In the Treatment of a Variety of Neurodegenerative Diseases". Dale Bredesen, **Veronica Galvan**.
3. US Patent Application 13/128,800 "Inhibition of mammalian target of rapamycin". Zelton D. Sharp, John R. Strong, **Veronica Galvan**, Salvatore Oddo.
4. US Patent Application "Use of TOR inhibitors to maintain cerebrovascular health and/or restore cerebrovascular dysfunction". Arlan Richardson, **Veronica Galvan**, Ai-Ling Lin, Peter Fox.
5. US Patent Application "The use of Inhibitors of mTOR to Improve Vascular Functions in APOE4 Carriers and Reduce Risk for Alzheimer's Disease and other Neurovascular and Psychiatric Disorders". Ai-Ling Lin, Arlan Richardson, **Veronica Galvan**, Peter Fox.

TRANSLATIONAL RESEARCH & DRUG DISCOVERY

1. Partnership, Laboratory for Drug Discovery in Neurodegeneration (LDDN), Harvard University, Boston, MA, and the Alzheimer's Association, Chicago, IL. "*Inhibition of the cleavage of APP intracellular domain by Caspase 8*". Assay development and high throughput screening for small molecules that inhibit APP intracellular cleavage by caspase-8.
2. Joint Venture, Neurobiological Technologies Inc., Emeryville, CA. "*Novel therapeutic approaches to Alzheimer's disease*". Preclinical pharmacokinetic, formulation, efficacy studies.
3. Grant, Alzheimer's Drug Discovery Foundation, Institute for the Study of Aging, New York, NY. "*Identification of inhibitors for the C-terminal D664 cleavage of APP as potential therapeutic agents for Alzheimer's Disease*". Identification of novel compounds that inhibit C-terminal cleavage of APP in collaboration with the ICCB-Longwood library at Harvard University, Boston, MA.
4. Scientific Advisory Board, Rapa Holdings Inc. (2012 – 2016)

TEACHING AND TRAINEES

2011

FA11 INTD 5000-001 FUNDS OF BIOMEDICAL SCIENCES
FA11 PHAS 5006 CLIN APPS IN PHYSIOLOGY (XL-P)
FA11 CSBL 6058: NEUROBIOLOGY OF AGING

2012

FA12 INTD 5000-001 FUNDS OF BIOMEDICAL SCIENCES
FA12 PHAS 5043 PHYSIOLOGY IN HEALTH AND DISEASE
FA12 CSBL 6058: NEUROBIOLOGY OF AGING

2013

FA13 INTD 5000-001 FUNDS OF BIOMEDICAL SCIENCES

2014

FA13 INTD 5000-001 FUNDS OF BIOMEDICAL SCIENCES
CSBL 6048 BIOLOGY OF AGING

2015

PHYL 5013 DENTAL PHYSIOLOGY
 FA15 INTD 5000-001 FUNDS OF BIOMEDICAL SCIENCES
 CSBL 6048 BIOLOGY OF AGING
 FA15 PHAS 5043 PHYSIOLOGY IN HEALTH AND DISEASE
 Invited lecturer, NEUR 3447 – NEUROBIOLOGY. Department of Neuroscience, Trinity University

2016

CSBL 6048 BIOLOGY OF AGING
 PHYL 5013 DENTAL PHYSIOLOGY
 FA15 INTD 5000-001 FUNDS OF BIOMEDICAL SCIENCES

2017

CSBL 6048 BIOLOGY OF AGING
 PHYL 5013 DENTAL PHYSIOLOGY
 FA17 IBMS 5000-001 FUNDS OF BIOMEDICAL SCIENCES

2018

CSBL 6048 BIOLOGY OF AGING
 DHHD 6006 DENTAL PHYSIOLOGY
 FA18 IBMS 5000-001 FUNDS OF BIOMEDICAL SCIENCES

2019

CSBL 6048 BIOLOGY OF AGING
 DHHD 5013 DENTAL PHYSIOLOGY
 FA19 IBMS 5000-001 FUNDS OF BIOMEDICAL SCIENCES

2020

CSBL 6048 BIOLOGY OF AGING
 DHHD 5013 DENTAL PHYSIOLOGY
 FA20 IBMS 5000-001 FUNDS OF BIOMEDICAL SCIENCES

*** Trainees at UT Health San Antonio are highlighted in grey*

Table 1. Trainees - High School Students

Trainee	Program	Description	Date
Aaron Bae	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2003 – 8/2003
Tara Ghadjar	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2003 – 8/2003
Sara Bowman	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2003 – 8/2003
Marina Ataie	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2006 – 8/2008
Kyle Doherty	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2005 – 8/2005
Chris Lynch	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2005 – 8/2005
Eric Slessarev	Glenn Foundation Summer Research Program		6/2007 – 8/2007
Morgan O'Connor	Glenn Foundation Summer Research Program		6/2007 – 8/2007
Mark Barry	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2008 – 8/2008
Jacob Davis	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2008 – 8/2008
Emily Yaeger	Glenn Foundation Summer Research Program	Mentor/Supervisor	6/2008 – 8/2008
Stephanie Gonzalez	Scholar, Voelcker Biomedical Research Academy	Mentor/Supervisor	2010-2012
Lea Morin	Scholar, Voelcker Biomedical Research Academy	Mentor/Supervisor	2014-2016

Table 2. Trainees - Undergraduates

Trainee	Program	Institution	Description	Date
Adam Bredt	Buck Institute Summer Undergraduate Research Program	University of California, Santa Barbara	Mentor/ Supervisor	2002
Sandhya Sitaraman	Buck Institute Summer Undergraduate Research Program	Massachusetts Institute of Technology	Mentor/ Supervisor	2003-2004
Afanassi Kourakine	Buck Institute Summer Undergraduate Research Program	University of Moscow, Russia	Mentor/ Supervisor	2005
Robin Zhang	Buck Institute Summer Undergraduate Research Program	University of California, Los Angeles	Mentor/ Supervisor	2007
Wendy Li	Physiology Undergraduate Research Experience (PURE), UTHSCSA	St. Mary's University, San Antonio	Mentor/ Supervisor	2009
Rocio Avila	Physiology Undergraduate Research Experience (PURE), UTHSCSA	Trinity University, San Antonio	Mentor/ Supervisor	2010
Daniel Araujo	Minority Access to Research Careers (MARC) Program U*STAR	St. Mary's University, San Antonio	Mentor/ Supervisor	2011-2012
Cassandra Antell	Minority Access to Research Careers (MARC) Program U*STAR	St. Mary's University, San Antonio	Mentor/ Supervisor	2012-2013
Peter Romero	R25 START-UP Program	St. Mary's University, San Antonio	Mentor/ Supervisor	2014-2015
Celina Provencio	R25 START-UP Program	Trinity University, San Antonio	Mentor/ Supervisor	2014-2015
Stephen Hernandez	R25 START-UP Program	University of Texas at San Antonio	Mentor/ Supervisor	2016-
Megan Reyna	Odyssey Scholar	University of Chicago	Supervisor/ Mentor	2017

Table 3. Trainees - Graduate Students, Medical Students, Postdoctoral Fellows, Junior Faculty

Trainee	Position	Program	Degree, Institution	Description	Date	Current Institution
Wei Huang	Visiting Scientist		Shangxi University, China	Mentor/ Supervisor	2002/2006	Research Associate, Harvard University
Huidong Tang	Visiting Scientist		Shanghai Jiaotong University	Mentor/ Supervisor	2001/2007	Professor, Shanghai University/Shanghai Jiaotong University School of Medicine
Sandhya Sitaraman	Medical Student	Buck Institute	University of California San Diego	Mentor/ Supervisor	2004-2005	University of California San Diego School of Medicine
Tila Franca	Visiting Scientist	Buck Institute	University of Rome	Mentor/ Supervisor	2006/2009	Scientist, BioMarin, Novato CA
Ricardo Staccini	Visiting Scientist	Buck Institute	University of Rome	Mentor/ Supervisor	2006/2009	Scientist, Intretexon Corporation, San Francisco, CA
Jianliang Fu	Visiting Scientist	UTHSCSA	Shanghai Jiaotong University	Mentor	2011/2012	Professor, Shanghai Jiaotong University School of Medicine
Stacy Hussong	Postdoctoral Fellow		PhD, University of Minnesota	Mentor	09/2013-present	UT Health San Antonio
Stacy Hussong	Postdoctoral Fellow	NIA Biology of Aging Research Training Grant T32AG21890	PhD, University of Minnesota	Mentor	09/2010 – 08/2013	UT Health San Antonio

James Cuvillier	Medical Student	M-STAR (AFAR)	M.S., Baylor University	Mentor	05/2014-09/2016	UT Health San Antonio
Jordan Jahrling	Postdoctoral Fellow	NIA Biology of Aging Research Training Grant T32AG21890	PhD, UTMB Galveston	Mentor	01/2014-01/2016	UT Health San Antonio
Brendan Langford	Medical Student	M-STAR (AFAR)	BS, Drury University	Mentor	05/2015	UT Health San Antonio
Carlos Pomilio	Graduate Student, Neurosciences	Bec.Ar (Fullbright/CO NICET) Scholar	MS, University of Buenos Aires	Co-Mentor	01/2016-07/2016	UT Health San Antonio /University of Buenos Aires/CONICET
Angela Olson	Graduate Student, Biology of Aging		U Rochester	Mentor	01/05/16-present	UT Health San Antonio
Candice Van Skike	Postdoctoral Fellow	NIA Biology of Aging Research Training Grant	Baylor College	Mentor	01/11/16-present	UT Health San Antonio
Andrew Pickering	Assistant Professor	UT Health	PhD, University of Southern California, Los Angeles	Mentor	01/15/17-present	UT Health San Antonio
Andy Banh	MD/PhD Student	UT Health		Mentor	10/15/17-present	UT Health San Antonio

Table 4. Dissertation and Qualifying Examination Committees

Trainee	Position	Program	Description	Date	Mentor
Xu Xuan	Graduate Student	Molecular Medicine Track	Dissertation Committee Member	2009-2012	Tom Boyer
Di Zhang	Graduate Student	Neuroscience Track	Qualifying and Dissertation Committee Member	2011- 2015	Xin-Yun Lu
Wenrui Ye	Graduate Student	Molecular, Cellular and Integrative PhysiologyTrack	Qualifying Examination Committee Member	2011	Michael Beckstead
Shauna Hill	Graduate Student	Biology of Aging Track	Dissertation Committee Member	2012- 2016	Holly Van Remmen
Rashmi Singh	Graduate Student	Pharmacology Track	Qualifying and Dissertation Committee Member	2012- 2015	Randy Strong
Samantha Rendon	Graduate Student		Qualifying and Dissertation Committee Member	2011-2015	Steven Austad
Jennifer Parrot	Graduate Student	Neuroscience Track	Qualifying Examination Committee Member	2012- present	Jason O'Connor
Deana Apple	Graduate Student	Cell Biology, Genetics and Molecular Medicine	Qualifying and Dissertation Committee Member	2013- present	Erszi Kokovay

Phillip Webster	Graduate Student	Cell Biology, Genetics and Molecular Medicine	Dissertation Committee Member	2013- present	Alfred Fisher
Foluronso Oluwarotimi	Graduate Student	University of Texas Medical Branch	Dissertation Committee Member	2013-2016	Anson Pierce
Valentina Garbarino	Graduate Student	Physiology and Pharmacology Discipline	Dissertation Committee Member	2016-present	Georgianna Gould/Lynn Daws
Brian Stoveken	Graduate Student	Biology of Aging	Qualifying Examination Committee Member	2014	James Lechleiter
Mikaela Sifuentes	Graduate Student	Cell Biology, Genetics and Molecular Medicine	Qualifying Examination Committee Member	2014	James Lechleiter
You Zhou	Graduate Student	Biology of Aging	Qualifying Examination Committee Member	2014	Nick Musi
Erin Munkacsy	Graduate Student	Biology of Aging	Qualifying Examination Committee Member	2014	Shane Rea
Rene Solano Fonseca	Graduate Student	Biology of Aging	Qualifying Examination Committee Member	2014	Erszi Kokovay
Danielle Coelho	Graduate Student	Physiology and Pharmacology	Qualifying Examination Committee Member	2016	Jason O'Connor
Sang Hyun Chun	Graduate Student	Cellular and Structural Biology	Dissertation Committee Member	2017	James Lechleiter
Breeanne Soteros	Graduate Student	Neuroscience	Qualifying Examination Committee Member	2017	Gek-Ming Sia
Ariana Cruz	Graduate Student	Neuroscience	Qualifying Examination Committee Member	2017	Martin Paukert
Angelica Salinas	Graduate Student	Neuroscience	Dissertation Committee Member	2017	Martin Paukert
Breeanne Soteros	Graduate Student	Neuroscience	Dissertation Committee Member	2017	Gek-Ming Sia
Kristi Guerrero	Graduate Student	Neuroscience	Dissertation Committee Member	2019	Naomi Sayre
Shengwen Deng	Graduate Student	Biomedical Engineering	Dissertation Committee Member	2019	Peter Fox
Sam Harrison	Graduate Student	Biology of Aging	Qualifying Examination Committee Member	2020	Erszebet Kokovay
Paulino Ramirez	Graduate Student	Cell Biology, Genetics, and Molecular Medicine	Qualifying Examination Committee Member	2020	Bess Frost
Jessica Wickline	Graduate Student	Neuroscience	Dissertation Committee Member	2020	Sarah Hopp

RESEARCH SUPPORT

Total current sponsored effort: 98%

Average sponsored effort for the last 5 years: 96%

ONGOING

1R01 RF1 AG068283-01 (**Galvan**, Van Remmen)

09/15/20 – 09/14/25

NIH/NIA

Tau-induced astrocyte senescence in Alzheimer's disease

The goal of this project is to define the involvement of tau-induced astrocyte senescence in AD and advance the knowledge of how pathogenic tau and senescence can be targeted therapeutically.

Role: PI/MPI

1 I01 BX002211-01A2 (**Galvan**)

01/01/20 – 12/30/24

VA Research and Development Merit Award

Pathogenic Tau Promotes Brain Vascular Dysfunction in Alzheimer's Disease

The goal of this project is to define mechanisms of pathogenic tau-induced brain vascular dysfunction in AD and determine the potential for tau immunotherapy in AD and other tauopathies.

Role: PI

1R01AG057964-01 (**Galvan**, Perez)

09/15/17 – 06/30/22

NIH/NIA

Brain cellular senescence as a driver of Alzheimer's disease

The goal of this project is to determine the role of brain cellular senescence in the pathogenesis of Alzheimer's disease.

Role: PI/MPI

P30 AG013319-26 (Strong)

09/01/20 – 08/31/25

NIH/NIA SA Nathan Shock Center of Excellence in the Biology of Aging

This project supports the San Antonio Nathan Shock Center whose goal is to provide services to enable research in the biology of aging and in age-associated diseases.

Role: Core Co-Leader

2T32AG021890-16A1 Training Grant on the Biology of Aging

05/01/19 -04/30/24

Musi, Nicolas (PI)

Galvan, Veronica (MPI)

Hornsby, Peter (MPI)

Role: Associate Director

Alzheimer's Association Part of the Cloud – Gates Award (Seshadri)

09/2020-09/2022

Phase 2 Clinical Trial of Rapamycin for Alzheimer's Disease

The aim of this double-blinded placebo-controlled trial is to examine the safety, tolerability, and feasibility of one-year oral rapamycin treatment in individuals with amnesic mild cognitive impairment and Alzheimer's disease.

Role: Co-Investigator

1R01AG064078-01 (Ran)

08/01/19 – 04/30/24

Membrane lipid peroxidation in pathogenesis of Alzheimer's disease

The goal of this study is to understand the role of membrane lipid peroxidation in neurodegeneration of AD and define efficacy of Glutathione peroxidase 4 (Gpx4) as a target in AD.

Role: Co-Investigator

R41AG062163-01 Lechleiter (PI)

09/01/18 – 05/31/21

NIH/NIA

Astrocyte activation by small-molecule ADORA3 agonists: a novel therapy for Alzheimer's disease

The goal of this project is to define the efficacy of small molecule ADORA3 agonists as therapies for Alzheimer's disease using mouse models.

Role: Co-Investigator

R56AG061051 Pickering (PI) 12/01/18 – 05/31/21
NIH/NIA

A mechanistic investigation of proteasome manipulation an intervention to slow, prevent or reverse non-dementia age-related cognitive declines
The goal of this project is to define the role of the proteasome in mechanisms of neurodegeneration in Alzheimer's disease and other dementias.

Role: Key Personnel

Private (**Galvan**) Renewed (no expiration)

Robert L. Bailey and daughter Lisa K. Bailey Alzheimer's Fund

Elucidating the molecular links between aging and Alzheimer's disease: The role of mTOR

The goal of this project is to determine the mechanisms that link signaling through the mTOR pathway and the production of nitric oxide in vascular endothelial cells.

Role: PI

COMPLETED

1 I01 BX002211-01A2 (**Galvan**) 01/26/15 – 12/31/19

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: PI

Kleberg Foundation Award (Paukert) Role: co-I 1/1/15 – 12/31/19

Robert J. Kleberg and Helen C. Kleberg Foundation

Mechanisms of neurodegeneration and the role of astrocytes: Insights into Alzheimer's disease and its progression

The goal of this project is to determine the role of astrocytes in the early stages of Alzheimer's disease.

Role: Co-Investigator

1R21AG055090-01 (Jakob) 05/01/17 - 04/30/19

NIH/NIA

A role of polyphosphate in Alzheimer's disease

The goal of this project is to define the role of the several million year-old molecule polyphosphate, present in every eukaryotic cell and tissue, in the formation of A β fibrils in Alzheimer's disease.

Role: Co-Investigator

SAMF 2014 (**Galvan**) 08/01/14 - 07/31/18

San Antonio Medical Foundation

Interdisciplinary approaches to age-associated neurodegenerations and cognitive decline

The goal of this project is to establish the Neurobehavioral Functional Assessment Laboratory, a comprehensive testing facility available to all investigators at the UT Health Science Center and its research partners to advancing research in neurological diseases in our community.

Role: PI

OWENS FND 2018 (**Galvan**) 01/01/18 - 12/31/18

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 A β -induced vessel damage.

Role: PI

AG-NS-0726-10 (**Galvan**) 08/01/11 – 07/31/16

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: PI

JMR Barker Foundation (**Galvan**, Curiel) 01/01/12-12/31/16
Exploring the potential for rapamycin as a therapy for Alzheimer's disease and other dementias
The goal of this project is to determine whether rapamycin can restore CBF in AD or MCI patients.
Role: PI

IIMS/CTSA (**Galvan**) 11/01/15-10/30/16
NIH Institute for Integration of Medicine and Science
Neurovascular tau in dementia
The goal of this project is to determine the role of misfolded and oligomerized tau in neurovascular dysfunction associated with Alzheimer's disease and other dementias.
Role: PI

1IO1VX001454-01 (Hornsby) 10/01/11 – 09/30/15
Regenerative medicine
Veterans Administration Research and Development Merit Award
The project will establish a non-human primate model for the safety and efficacy of autologous cell transplantation using iPS cells.
Role: Co-Investigator

1 R03 AG045481-01/NIH (Hornsby) 08/15/13 - 05/31/15
Stress resistance in neurons from primate iPS cells
This project will establish whether differentiated motor neurons derived from three primate species of very different longevities exhibit differential resistance to physiological stresses.
Role: Co-Investigator

OWENS FND 2011-2016 (**Galvan**) 01/01/12-12/31/16
William and Ella Owens Medical Research Foundation
Rapamycin as a therapy for vascular damage in Alzheimer's disease
The goal of this continuation project is to determine whether rapamycin maintains memory in AD mice by blocking A β -induced vessel damage.
Role: PI

ISG 5 P30 AG013319-18 Pilot Grant (**Galvan**) 01/07/12-06/30/13
NIH/NIA – Nathan Shock Center of Excellence
mTOR and cognitive aging
The goal of this project is to explore the role of neuronal mTORC1 in the regulation of memory decline during aging.
Role: PI

IIMS/CTSA (**Galvan**) 01/07/12-06/30/13
Institute for Integration of Medicine and Science
Preservation of brain vascular integrity in Alzheimer's disease by rapamycin
The goal of this project is to use advanced functional imaging to determine whether rapamycin to block the progression of AD by preventing A β -induced vessel damage.
Role: PI

University Research Council Award (**Galvan**) 01/01/11-01/01/12
University of Texas Health Science Center
Regulation of Affect and Cognition by mTOR
The goal of this project is to determine the role of mTOR signaling in the regulation of cognitive and affective processes using mice as a model.
Role: PI

RC2AG036613 NIH Recovery Act Grand Opportunities "GO" grant (Richardson) 10/01/09-09/30/11
mTOR inhibition on the pathogenesis of Alzheimer's-like deficits in a mouse model of the disease
The goal of this project is to investigate the effect of mTOR inhibition on age-associated pathologies and disease. My role in the project is as co-Leader of the project that aims to determine the effect of
Role: Project co-Leader

NIRG-DDC-120433 Alzheimer's Association (**Galvan**) 01/01/09-12/31/10
 Alzheimer's Association
A role for the intracytoplasmic cleavage of APP in Alzheimer's disease
 Drug discovery partnership, Laboratory for Drug Discovery in Neurodegeneration, Harvard Center for Neurodegeneration and Repair. The goal of this project is to identify inhibitors of caspase-8 cleavage of APP.
Role: PI

R21 AG031380 (Kurakin, **Galvan**) 12/01/07-11/30/09 NIH/NIA
Proteome-wide analysis of APP intracellular signaling: a search for mediators of A β toxicity
 The major goal of this project is to apply a new proteomic methodology to the elucidation of pathways of A β toxicity in Alzheimer's disease.
Role: Co-PI

S.D. Bechtel Research Grant (**Galvan**) 12/01/07-11/30/07
 S.D. Bechtel Foundation
A role for the C-terminal cleavage of APP in the pathogenesis of Alzheimer's disease
 The goal of this continuation project is to identify compounds that may mimic the effect of the D664A mutation in transgenic mouse lines modeling AD.
Role: PI

NIRG-04-1054 (**Galvan**) 09/01/04-08/31/06
 Alzheimer's Association
A role for the intracytoplasmic cleavage of APP in Alzheimer's disease
 The aim of this project is to answer the question of whether behavioral deficits present in PDAPP mice are ameliorated by the D664A mutation.
Role: PI

N/A (**Galvan**) 10/01/03-09/30/05
 The Douglas French Alzheimer's Foundation
C-Terminal Cleavage of Amyloid Precursor Protein and Synaptotoxicity in a Mouse Model of AD
 The goals of this project are to determine whether mutation of Asp 664 at the C-terminus of a human APP transgene will affect the generation of functional memory deficits in a transgenic mouse model of the disease.
Role: PI

Eppley Foundation Research Grant (**Galvan**) 03/01/02-09/30/03
 Eppley Foundation
Mechanisms that couple cell cycle control and apoptosis: A study of the interaction between Chk1 and IAPs
 The goal of this project is to define the functional significance of the interaction between the cell cycle checkpoint kinase Chk1 and the classic inhibitor of apoptosis proteins XIAP and cIAP.
Role: PI

SERVICE (INTRAMURAL)

Member, Institutional Animal Care and Use Committee, Buck Institute	2007 - 2009
Member, Neuroscience Discipline, Integrated Multidisciplinary Graduate Program	2009 - present
Member, Physiology and Pharmacology Discipline, Integrated Multidisciplinary Graduate Program	2009 - present
Member, Biology of Aging Discipline, Integrated Multidisciplinary Graduate Program	2009 - present
Member, UTHSCSA Institutional Biosafety Committee	2010-2013
Organizer, Biology of Aging Journal Club	2010-2012

Member, Physiology Track Committee on Graduate Studies (COGS)	2010-2012
<i>Member, UTHSCSA Integrated Multidisciplinary Graduate Program Admissions Committee</i>	2011-2014
<i>Member, UTHSCSA Integrated Multidisciplinary Graduate Program Recruitment Committee</i>	2011-2014
Member, Biology of Aging Track COGS	2012-2015
Member, William and Ella Owens Foundation grant application pre-selection committee	2013
<i>Organizer, Department of Physiology Seminar Series</i>	2013-2014
<i>Organizer, Barshop Institute Seminar Series</i>	2013-2014
Member, Internal Selection and Steering Committee, Biology of Aging NIH Training Grant T32AG21890	2013-present
Member, Barshop Institute Faculty Recruitment Committee	2013-present
Member, Nathan Shock Center for Excellence in the Biology of Aging 2014 Competitive Renewal Committee	2014
Member, NIA Nathan Shock Center Executive Committee	2015-present
Graduate Student Advisor, Biology of Aging Discipline and past Biology of Aging Track, Graduate School of Biomedical Sciences	2015-present
Member, Department of Cellular and Integrative Physiology Faculty Search Committee	2016- 2017
Member, Department of Neurosurgery Chair Search Committee	2017
Member, Department of Cellular and Integrative Physiology Faculty Search Committee	2019-present

EXTRAMURAL SERVICE/OUTREACH

Research Chair, Board of Directors, Alzheimer's Association South Texas Chapter	2012-2016
Member, Scientific Advisory Board, Rapamycin Holdings Inc	2012-2017
Faculty Participant, Silver Solutions – Texas Public Radio – San Antonio	2012-2018
Board Member Participant, Alzheimer's Association 2014 WALK, March 20 2014	2014-present
Executive Committee Member, American Aging Association	2018-present
Member, Board of Directors, American Aging Association	2018-present
Finance Committee, American Aging Association	2020-present

INSTITUTIONAL ADVANCEMENT ACTIVITIES

2012 - 2014 Participation in and cultivation of JMR Barker Foundation proposal. \$1M total gift to the institution, of which 196K were devoted to AD research in my laboratory.

2012 – present Cultivation and solicitation of Bailey Family for AD research project for use by my laboratory and endowment support. \$250K-380K/year gifts devoted to AD research in my lab.
The ROBERT L. AND JO NELL U. BAILEY ENDOWMENT FOR ALZHEIMER'S DISEASE DISCOVERY was established in November 2014.

2012 - 2013 Cultivation and solicitation, Madelein Cain Foundation, Mr. Mike Wilks.

2013 – 2016 Participation in and cultivation of proposal to the San Antonio Medical Foundation. \$334K total gift of which \$186K were devoted to AD research in my lab.

2015 Participation in research proposal for fundraising towards the establishment of special clinical and research programs at the UT Health Biggs Institute for Alzheimer's and Neurodegenerative Diseases.

2011 – present Speaking and development engagements (~ 3-5/year) for the Institutional Development Office and the President's Office towards institutional community outreach and education.

SELECTED MEDIA CONTRIBUTIONS (non-UT Health San Antonio)

Journal of Alzheimer's Disease	Chris Rebillot	<i>Paradoxical Alzheimer's finding may shed new light on memory loss</i>	March 7 2008
Toronto Sun		Mouse Brains Look Like Alzheimer's, But Mouse Memories Do Just Fine	April 24, 2006
Science Magazine		<i>Sticky Brains Don't Dull Memories</i>	April 24, 2006
Marin Independent Journal	Richard Halstead	<i>Buck researchers find Alzheimer's 'switch'</i>	April 25, 2006
The Press Democrat	Guy Kovner	<i>Alzheimer's research on mice offers new hope</i>	April 25, 2006
The Forgetting – A portrait of Alzheimer's News Updates PBS		<i>Study provides a new look at Alzheimer's disease</i>	April 26, 2006
San Francisco Chronicle	Erin Allday	<i>Studies bloom on Alzheimer's as Boomers Age</i>	May 15, 2006
Clarín (Largest newspaper in Argentina)	Valeria Roman	Ensayan 32 tratamientos para dar batalla al mal de Alzheimer	June 18, 2006

SELECTED MEDIA CONTRIBUTIONS (UT Health San Antonio)

Radio and Television

KSAT-TV, San Antonio		Drug shows promise in Alzheimer's prevention	May 13, 2010
KGNB Radio-New Braunfels		Rapamycin and its potential for preventing Alzheimer's disease	May 15, 2010
KLRN-TV/PBS	David Martin Davies	"Conversations" on aging research	April 5, 2012
WAMC Northeast Public Radio	Academic Minute		August 5, 2012
KDFC Texas Public Radio		Easter Island drug raises cognition throughout lifespan	August 6, 2012
KSAT-TV San Antonio WSB-TV, Atlanta, GA KTUV-TV, Oakland, CA		Scientists trying an exercise in health	Oct 26, 2013
September 9, 2015 – Think Medicine: Promising Research on Alzheimer's Disease (Dr. Galvan) 6:30 – 8:00 pm at Holly Auditorium, UTHSCSA First lecture of 3-part series, "Think Medicine" , joint production of Texas Public Radio and the UT Health Science Center San Antonio			
KDFC Texas Public Radio	The Source	Projects at the Barshop Institute – Alzheimer's research	March 8, 2017
KSAT News	Tiffany Huertas	Local research could impact how Alzheimer's, dementia are treated in the future	November 20, 2019

Printed Press

Science Magazine		<i>Drug that extends life span prevents Alzheimer's deficits</i>	May 9, 2010
United Press International Science Daily Genetic Engineering News Times of India Florida Today Health Canal Meridian Institute		<i>Drug that extends life span prevents Alzheimer's deficits</i>	April 2, 2010
San Antonio Magazine	Jules Aldaz	<i>Mad Science</i>	Dec 8, 2010
NCAA Time blog		<i>Protein find could decipher Alzheimer's</i>	Feb 8, 2011
La Tercera (second largest newspaper in Chile)		<i>De la Isla de Pascua podria salir un milagroso freno al Alzheimer</i>	April 7, 2012
Science Daily Science Codex Medical Xpress		<i>Easter Island drug raises cognition throughout life span</i>	June 29, 2012
United Press International (UPI) Latinos Post		<i>Drug from Easter Island may slow aging</i>	June 30, 2012
Informazione libera Net1 news/ Articolore		<i>Isola de Pasqua: Scoperto farmaco che aumenta l'intelligenza</i>	June 30, 2012
Red Orbit Psych Central Gizmag iTechPost		<i>Easter Island drug could boost cognitive function</i>	July 1, 2012
International Business Times (UK)	Howard Koplowitz	<i>Can Easter Island bacteria rapamycin cure Alzheimer's disease?</i>	July 3, 2012
Discovery News	Nic Halverson	<i>Does Easter Island hold Alzheimer's cure?</i>	July 3, 2012
Smithsonian Magazine	Rachel Nuwer	<i>Easter Island drug makes mice happier, smarter</i>	July 3, 2012
BBC Mundo	William Marquez	<i>De la Isla de Pascua podria salir un milagroso freno al Alzheimer's</i>	July 4, 2012
The Globe & Mail (Toronto)	Matthew Robinson	<i>Easter Island bacteria behind breakthrough in Alzheimer's</i>	July 4, 2012
Alzheimer Europe Newsletter		<i>Rapamycin improves memory and learning in mouse models</i>	July 9, 2012
National Geographic	Kastalia Medrano	<i>An antiaging drug for mice .. and people?</i>	July 11, 2012
La Prensa San Antonio		<i>Aging with grace: Coming soon thanks to UTHSCSA</i>	July 11, 2012
San Antonio Express-News	Marissa Villa	<i>Galvan researches drug to combat Alzheimer's</i>	Aug 15, 2012
Conexion SA	Marissa Villa	<i>Galvan investiga medicina para Alzheimer</i>	Aug 20, 2012
San Antonio Express-News	Drew Joseph	<i>UTSA dean has own idea on Alzheimer's</i>	Sept 14, 2013
Biotechnology Calendar	Jaimee Saliba	<i>San Antonio biotech spin-off to commercialize UTHSC anti-aging research</i>	Dec 20, 2012

San Marcos Daily Record		Aging conference in New Braunfels launches educational programming component at EdenHill Communities	Oct 6, 2013
Seguin Gazette		EdenHill in New Braunfels hosts aging conference	Oct 10, 2013
New Braunfels Herald-Zeitung	New Braunfels Herald-Zeitung	Aging conference highlights research advances	Oct 12, 2013
New Scientist	Clare Wilson	<i>Every day drugs could give extra years of life</i>	Oct 1, 2013
San Antonio Express-News	Jennifer Lloyd	<i>Scientists trying an exercise in health</i>	Oct 20, 2013
Kansas City Star NECN.com/ Charlotte Observer / Sacramento Bee / Tampa Tribune/ Atlanta Journal-Constitution/ Fort Worth Star-Telegram / Anchorage Daily News / Kentucky.com / Austin American-Statesman / Palm Beach Post / Bellingham Herald / Sun Herald, South Florida / Macon.com Modesto Bee / Centre Daily Times / Burleson Star, TX / Idaho Statesman / Belleville News / Tri-City Herald, WA / Herald Online Denver Post / TriValley Central, Casa Grande/KSAT12, San Antonio		<i>Scientists trying an exercise in health</i>	Oct 27, 2013 Oct 28, 2013
BioNews Texas	Chris Comish	<i>UT Health Science Center San Antonio researchers seek to capture health benefits of exercise in pill form</i>	Oct 31, 2013
Herald-Zeitung, New Braunfels	Christy Wylie	<i>EdenHill hosts AGE & ENGAGE! research conference</i>	Nov 16, 2013
San Antonio Magazine	Kathleen Petty	<i>UT scientist researches secrets of aging brains in hopes of halting Alzheimer's disease</i>	Dec 29, 2014
San Antonio Express-News	Jessica Belasco	What to eat to fight Alzheimer's	April 3, 2015
Houston Chronicle		New hybrid diet shows success of 10 brain-friendly foods	April 20, 2015

OTHER MEDIA

EurekaAlert! American Association for the Advancement of Science

Published on April 1 2010

A drug that extends life span prevents Alzheimer's deficits

io9 We come from THE FUTURE: MEDICINE

Published on April 2, 2010

Annalee Newitz

A drug discovered in the soil of Easter Island Could Cure Alzheimer's

Motherboard

Published on July 2, 2012

Easter Island's wonder drug could make you smarter

La Gran Epoca

Published on July 7, 2012

Anastasia Gubin

Estudian 'rapamicina' de la Isla de Pascua para tratamientos en Alzheimer y efectos de vejez

UTHSCSA Barshop Institute: Rapamycin Profile

Published in Youtube on Jun 26, 2012

Scientists at the Barshop Institute speak on the exciting scientific breakthroughs from studies of rapamycin in aging research.

Aging with grace: Coming soon thanks to UTHSCSA

Published July 11, 2013 in I love SA

By Will Sansom and Angela Covo

Dr. Veronica Galvan works to unravel the secrets of aging at the The Sam and Ann BARSHOP INSTITUTE for Longevity and Aging Studies at UTHSC-San Antonio.

UT Health Science Center: Our Stories

Published at UTHSCSA main web page on August 18, 2014

By Will Sansom

Sister, sage, scientist.

San Antonio Nathan Shock Center Informational Session

Published in Youtube on Apr 2, 2015

Presented By: Nathan Shock Center Leaders, Healthspan and Functional Assessment Core

National Institutes on Aging Nathan Shock Center for Excellence in Research in the Biology of Aging present and describe the capabilities of the NSC Cores

Ours is a story of discovery: 2014 President's Gala Dr. Veronica Galvan

Published on Sep 22, 2014

Dr. Veronica Galvan discusses her research on Alzheimer's disease which is being studied here at the Barshop Institute in the 2014 President's Gala.

Your UT Health Science Center at San Antonio

Published on Feb 10, 2015

The University of Texas Health San Antonio ranks in the top 13 percent of academic institutions receiving National Institutes of Health (NIH) funding. The university's schools of medicine, nursing, dentistry, health professions and graduate biomedical sciences have produced more than 31,000 graduates.

Participation in TV and billboard Ad campaign for the Health Science Center. April 2015. Campaign ran September 2015-February 2016

An Evening of Service: 2015 President's Gala Dr. Veronica Galvan

Published on Sep 22, 2015

Dr. Veronica Galvan discusses her research on Alzheimer's disease as part of the featured presentation at the Gala.

Galvan V, Comment on Nation et al. 2019 Nat Med PMID 30643288

Medscape (www.medscape.com) **Blood-Brain Barrier Breakdown: Early Dementia Biomarker**, Damian McNamara, January 24, 2019.

Study: Rapamycin prevents age-related brain vascular deterioration

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