

# CURRICULUM VITAE

## A. IDENTIFYING DATA

**Name:** Mehrdad Shamloo, Ph.D.

## EXECUTIVE SUMMARY:

I've worked in the fields of neuropharmacology, neurobehavior, and brain disorders since the inception of my doctoral studies in 1999. Directed, as PI and Co-PI on numerous industrial and NIH-funded research projects in this field and have published this work extensively. I have maintained my laboratory since 2001 in both industry and academic environments. In 2007, I started, managed, and directed the Stanford Behavioral and Functional Neuroscience Laboratory at Stanford University, a platform to conduct experimental behavioral pharmacology studies from start to finish with an assessment of the neuropathological and biochemical endpoints at the molecular and cellular levels. The last ten years, my laboratory has focused on understanding the underlying mechanism behind the pathologies in neurodegenerative and psychiatric disorders to develop therapeutic interventions to improve people's quality of life. As a direct result of the research in my laboratory, there are three ongoing clinical trials for the treatment of Alzheimer's disease (AD) and Parkinson's disease (PD). Furthermore, these activities led to the creation of three Stanford-originated Biotech Companies (CuraSen Therapeutics, Evia Therapeutics, and Longieva Therapeutics). I have extensive experience in AD animal modeling, drug discovery, neurobehavior, and neuropharmacology, and I have spent much time studying and publishing this work. My research efforts during these last ten years have led to the development of several neurotherapeutics currently in clinical testing for AD and PD.

## A. EMPLOYMENT

2022 – Present	Director, Stanford Program for Integrated Neuroscience Technologies
2017 – Present	Professor, Neurosurgery and Neurology Stanford University School of Medicine
2012 – 2017	Associate Professor, Neurosurgery and Neurology, Stanford University School of Medicine
2008 – 2013	Program Director, Stanford Institute of Neuro-Innovation and Translational Neurosciences (SINTN), Stanford University School of Medicine
2007 – Present	Director, Behavioral and Functional Neuroscience Laboratory, Stanford Neuroscience Institute Stanford University
2005 – 2007	Associate Director, Preclinical Development, Affymax
2003 – 2005	Senior Scientist/Program Leader, Pharmacology, AGY Therapeutics
2001 – 2003	Research Scientist, Target Validation and Identification Group, AGY Therapeutics
1999 – 2001	Associate Scientist, Research Group, AGY Therapeutics
1994 – 1999	PhD Student, PhD Program, Faculty of Medicine, University of Lund, Sweden, Wallenberg Neuroscience Research Center
1992 – 1994	Research Associate, Experimental Brain Research, University of Lund, Sweden

## **B. ACADEMIC HISTORY**

### **Colleges and Universities Attended**

- 1994            B.S., Malmo College of Health and Science, Sweden
- 1998            M.S., Medical School, University of Lund, Sweden
- 1999            Ph.D., Medical Science, Faculty of Medicine, University of Lund, Sweden (Wallenberg Neuroscience Research Center)

### **Scholarships and Honors**

- 2004            AGY Award for contribution, dedication and high quality preclinical studies

### **Other Study and Research Opportunities**

Present:

\*Title: Dietary and Microbial Reprogramming of Intestinal Microbiota-Produced Metabolites.  
Major Goals: To define the bacterial species and genes that make toxic compounds and determine how the gut microbiota can be rationally altered to reduce the production of toxic substances.

Status of Support: Active

Project Number: R01 DK101674 (SPO 111862)

Name of PD/PI: Sonnenburg, J. (contact PI), Shamloo, M. (MPI)

Source of Support: National Institutes of Health

Project/Proposal Start and End Date: 04/15/2020 – 03/31/2025

\*Title: Role of beta-adrenergic receptors in modulation of cognition and central and peripheral immune systems in Alzheimer's disease.

Major Goals: The aim of this proposal is to investigate the mechanistic basis of adrenergic receptor subtype tone on cognitive function, CNS resident microglia and infiltrating macrophage function, and recruitment of peripheral immune cells to the brain, to determine mechanisms through which modulation of these receptors can mitigate disease progression and reverse cognitive deficits in AD.

Status of Support: Active

Project Number: R01 AG054533 (SPO 123697)

Name of PD/PI: Shamloo, M.

Source of Support: National Institutes of Health

Primary Place of Performance: Stanford University

Project/Proposal Start and End Date: 08/01/2017 – 05/31/2024

**\*Title:** Neurometabolic Outcomes of Different Cardiopulmonary Bypass Strategies.

**Major Goals:** The aim of this project is to document continuous time-related changes in brain metabolites and correlate altered levels of these metabolites with alterations in cognitive development following DHCA and ACP bypass procedures.

**Status of Support:** Active

**Project Number:** R01 HL152757 (SPO 153435)

**Name of PD/PI:** Hanley, F. (PI), Shamloo, M. (Co-Investigator)

**Source of Support:** National Institutes of Health

**Primary Place of Performance:** Stanford University

**Project/Proposal Start and End Date:** 02/15/2021 – 01/31/2025

**\*Title:** A Shared Neuroscience Platform for National Dissemination and Training in Brain Organogenesis, Behavioral and Brain Disease Models, Viral Vectors, and Imaging Technologies.

**Major Goals:** To fund the Stanford Neurosciences Research Center in order to centralize and disseminate fundamental tools and techniques that are essential for the neuroscience community at the national level.

**Status of Support:** Active

**Project Number:** U24NS124026 (SPO 209382)

**Name of PD/PI:** Shamloo, M.

**Source of Support:** National Institutes of Health

**Primary Place of Performance:** Stanford University

**Project/Proposal Start and End Date:** 06/16/2022-05/31/2027

**\*Title:** CD36-dependent neuroimmune pathway regulates disruption of gut motility in Alzheimer's Disease.

**Major Goals:** The aim is to investigate CD36-dependent neuroimmune pathway regulation disruption of gut motility in Alzheimer's Disease.

**Status of Support:** Active

**Project Number:** R21 AG077521 (SPO 231906)

**Name of PD/PI:** Becker, L. (contact PI), Shamloo, M. (MPI)

**Source of Support:** National Institutes of Health

**Primary Place of Performance:** Stanford University

**Project/Proposal Start and End Date:** 05/15/2022 – 04/30/2024

**\*Title:** Development of selective cannabinoid receptor 2 agonists for treatment of addiction.

**Major Goals:** This project aims to collaborate with the Blueprint Neurotherapeutics Network team for lead optimization of our novel cannabinoid receptor 2 agonists class into preclinical/clinical development for the treatment of methamphetamine use disorder.

**Status of Support:** Active

**Project Number:** UH3 NS127382 (SPO 234935)

**Name of PD/PI:** Shamloo, M.

**Source of Support:** National Institutes of Health

Primary Place of Performance: Stanford University  
Project/Proposal Start and End Date: 05/15/2023-04/30/2027  
This is the UH3 phase of the awarded grant UG3 NS127382

\*Title: Selective Cannabinoid Receptor 2 Agonists for the Treatment of Parkinson's Disease.  
Goal: This project aims to test the efficacy of a cannabinoid 2 receptor agonist for the treatment of Parkinson's Disease

Status of Support: Active  
Project Number: SPO 258278  
Name of PD/PI: Shamloo, M.  
Source of Support: Stanford SPARK  
Primary Place of Performance: Stanford University  
Project/Proposal Start and End Date: 05/01/2022-04/10/2024  
This is a University Research Agreement; the PI does not devote a specific amount of effort.

\*Title: Altered ENS Neuroimmune Interactions Disrupt Gastrointestinal Motility in Alzheimer's Disease.  
Major Goals: This project aims to test how altered ENS Neuroimmune interactions disrupts gastrointestinal motility in Alzheimer's disease models.

Status of Support: Active  
Project Number: BEC0001-01 / R01 AG068394-03 (SPO 270267)  
Name of PD/PI: Becker, L. (PI), Shamloo, M. (Co-Investigator)  
Source of Support: Palo Alto Veterans Institute for Research (PAVIR) / National Institutes of Health  
Primary Place of Performance: Stanford University  
Project/Proposal Start and End Date: 03/01/2023-05/31/2026

\*Title: Mechanisms of sleep fragmentation in a mouse model of Alzheimer's disease.  
Major Goals: Addressing the impact of hyperexcitability of arousal circuits on the development of animal models of Alzheimer's Disease.

Status of Support: Active  
Project Number: RF1 AG082202 (SPO 271532)  
Name of PD/PI: de Lecea, L. (PI), Shamloo, M. (Co-Investigator)  
Source of Support: National Institutes of Health  
Primary Place of Performance: Stanford University  
Project/Proposal Start and End Date: 04/15/2023-03/31/2026

**Collaboration Contracts - Past:**

N/A  
Source of Support: Stanford – Wu Tsai Neurosciences Institute 02/16/22 – 02/15/23  
Title: Development and Validation of Selective Cannabinoid Receptor 2 Agonists for the Treatment of Parkinson's Disease.  
Role: Principal Investigator

- 1R56AG06839401 09/15/20 – 05/31/22  
National Institutes of Health  
Title: Altered ENS Neuroimmune Interactions Disrupt Gastrointestinal Motility in Alzheimer's Disease.  
Role: Co-Principal Investigator
- 1U18DA05241501 09/30/20 – 09/29/21  
National Institutes of Health  
Title: Validation and pharmacological profiling of a non-psychoactive THC analog, a novel and selective CB2 receptor agonist, in proof of concept studies using rodent models of heroin addiction.  
Role: Principal Investigator
- N/A 04/01/20 – 03/31/21  
Stanford - SPARK  
Title: Development of novel and selective death-associated protein kinase 1 inhibitors for the treatment of neurodegenerative diseases.  
Role: Principal Investigator
- N/A 04/01/20 – 03/31/21  
Stanford - SPARK  
Title: A Small-Molecule Activator of AMPK for Treatment of Mitochondrial Disorders.  
Role: Principal Investigator
- 5 R01 AG054533 04 (Shamloo, PI) 08/01/17 – 05/31/22  
National Institutes of Health  
Title: Role of beta adrenergic receptors in modulation of cognition, pathology and neuro inflammation in Alzheimer's disease.  
Role: Principal Investigator
- 5 P30 NSO69375 09 03/01/11 – 11/30/20  
National Institutes of Health  
Title: Stanford Neuroscience Research Cores for Gene Vectors, Microscopy and Behavior. Establish Neuroscience Research Cores: Behavior, Imaging and Gene-Vector CORES.  
Role: Co-Principal Investigator
- 5 R01 DK101674 06A1 04/01/20 – 03/31/25  
National Institutes of Health  
Title: Dietary and Microbial Reprogramming of Intestinal Microbiota-Produced Metabolites.  
Role: Co-Principal Investigator
- SPARK 05/01/18 – 04/30/19  
Title: Development of CNS-biased and selective death-associated protein kinase 1 inhibitors for the treatment of neurodegenerative disease.  
Role: Principal Investigator

- Denali Therapeutics, Inc. 09/01/16 – 12/31/18  
Title: The role of inflammation in neurological disorders.  
Role: Principal Investigator (Research-collaboration contract)
- R21NS088841 07/01/14 – 06/30/17  
National Institutes of Health  
Title: Reverse Translation of Patient Controlled Analgesia: A New Measure of Rodent Pan.  
Role: Co-Principal Investigator
- SIP 07/01/16 – 03/31/17  
Title: Discovery and development of novel beta-adrenergic receptor ligands as potential therapeutic agents.  
Role: Principal Investigator (Research-collaboration contract)
- SanBio, Inc. 04/15/15 – 02/28/17  
Title: Evaluation of the therapeutic effect of the Mesenchymal stem cells and their mechanism of action in stroke.  
Role: Principal Investigator (Research-collaboration contract)
- SPECTRUM/SPARK 01/01/15 – 12/31/17  
Title: Development of novel adrenergic receptor agonists.  
Role: Principal Investigator (Research-collaboration contract)
- BioTime, Inc. 07/01/15 – 06/30/17  
Title: Establishing In-vivo efficacy of exogenous BDNF in the permanent distal Middle Cerebral Artery Occlusion (dMCAO) rat stroke model and measure post-treatment functional recovery  
Role: Principal Investigator (Research-collaboration contract)
- Cognition Therapeutics, Inc. 01/01/15 – 01/30/17  
Title: Efficacy of Cog-Tx3 and Cog Tx4 in Thy1-APP<sup>Lond</sup>/Swe mouse model for Alzheimer's disease  
Role: Principal Investigator (Research-collaboration contract)
- Adamas Pharmaceuticals, Inc. 07/01/15 – 06/30/17  
Title: Effect of Amantadine on Functional Recovery in experimental model of ischemic stroke.  
Role: Principal Investigator (Research-collaboration contract)
- P01AG036695 07/01/11 – 06/30/17  
National Institutes of Health  
Title: Molecular Regulation of Stem Cell Aging  
Role: Principal Investigator
- SanBio, Inc. 02/01/15 – 02/29/16  
Title: Evaluation of the therapeutic effect of the Mesenchymal stem cells and their mechanism of action in stroke.  
Role: Principal Investigator (Research-collaboration contract)

- Omniox 02/04/15 – 12/31/15  
Title: Testing efficacy of Omniox-TX compound in a MCAO model of stroke.  
Role: Principal Investigator (Research-collaboration contract)
- ViroBay 10/03/13 – 10/03/14  
Title: Effects of Cathepsin S Inhibitor in the SOD1 Mouse Model of Amyotrophic Lateral Sclerosis (ALS) and Alzheimer disease (AD).  
Role: Principal Investigator (Research-collaboration contract)
- J. David Gladstone Institutes 09/01/13 – 08/31/14  
Title: Inhibiting Tau Acetylation to Treat Tauopathy – Supplement.  
Role: Principal Investigator (Research-collaboration contract)
- California Institute of Regenerative Medicine 02/01/10 – 01/31/14  
Title: Embryonic-Derived Neural Stem Cells for Treatment of Motor Sequelae following Sub-cortical Stroke.  
Role: Co-Principal Investigator
- Simons Foundation 10/01/10 – 09/30/13  
Title: Function and Dysfunction of Neuroligins in Synaptic Circuits.  
Role: Co-Principal Investigator
- Cognition Therapeutics 07/01/12 – 01/30/14  
Title: Does Treatment with CT013461 Rescue Cognitive Deficit in the Thy1-APPLond/Swe Mouse Model of Alzheimer’s Disease.  
Role: Principal Investigator (Research-collaboration contract)
- Applied StemCell 08/01/10 – 09/30/12  
Title: Engraftment of human somatic and stem cell expressing an immune tolerance gene.  
Role: Principal Investigator (Research-collaboration contract)
- Coyote Pharmaceutical 12/01/10 – 05/31/12  
Title: Testing the Effects of CNS-102 in the SOD1 Mouse Model of Amyotrophic Lateral Sclerosis.  
Role: Principal Investigator (Research-collaboration contract)
- Genentech 11/01/10 – 01/31/11  
Title: Does reducing inhibition by antagonizing the NR2B subunit of the NMDA receptor rescue cognitive deficits in the Tg65Dn mouse model of Down’s syndrome.  
Role: Principal Investigator (Research-collaboration contract)
- Genentech 09/01/09 – 08/31/11  
Title: Does Removal of DR6 Alter Behavior or Pathology in Mice over Expressing Human APP.  
Role: Principal Investigator (Research-collaboration contract)

Élan Pharmaceutical

11/01/09 – 03/31/10

Title: Behavioral outcome and pathology in PDAPP mice model of Alzheimer's disease.

Role: Principal Investigator (Research-collaboration contract)

### C. PUBLIC AND PROFESSIONAL SERVICE

2023 – Present Founder, Longieva Therapeutics  
2021 – Present Founder, Evia Therapeutics  
2019 – Present Member Student Advisor Board, Stanford University  
2018 – Present Founder, Curasen Therapeutics  
2015 – Present Member, Stanford Neurosciences Institute  
2015 – Present Advisor and member of advisory board SPARK Stanford University  
2014 – Present Member, Bio-X Stanford University  
2011 – Present Member, School of Medicine Cores Advisory Board, Stanford University  
2010 – Present Faculty advisor, member of advisory board of Gene Vector  
2010 – Present Faculty advisor, member of advisory board of Neuroscience Microscopy  
2010 – Present Member, SIM-1 Advisory Committee, School of Medicine Stanford University  
2007 – 2013 Member, Institutional Animal Care and Use Committee, Palo Alto Medical Foundation  
2007 – 2013 Member, Executive Committee, Stanford Institute for Neuro-Innovation and Translational Neurosciences, Stanford University School of Medicine  
2007 – 2013 Program Director, Stanford Institute for Neuro-Innovation and Translational Neurosciences, Stanford University School of Medicine  
2007 – 2013 Director of Pharmacology & Toxicology, CIRM Disease Team Stroke Neural Transplant Program, Stanford University School of Medicine

#### Consulting Positions:

2011 – 2014 Pharmacology and Behavior consultant, Weizmann Institute of Science  
2011 – 2014 Pharmacology and Behavior consultant, Durham Research Center, University of Nebraska Medical Center  
2011 – 2012 Pharmacology consultant, University of California, Irvine  
2010 – 2012 Pharmacology and Behavior consultant, Institute for Neurodegenerative Diseases, University of California, San Francisco  
2010 – 2012 Pharmacology consultant, University of California, San Diego, Translational Neuroscience Institute  
2010 – 2012 Pharmacology consultant, Scripps Research Institute

#### Editorial Positions:

2014 – Present Editorial Board Member, *Journal of Neurocardiovascular Disease*  
2012 – Present Editorial Board Member, *ISRN Stroke (International Scholarly Research Network)*  
2011 – Present Editorial Consultant, *Journal of Neuroscience*  
2006 – Present Editorial Consultant, *Journal of Biological Chemistry*



2006 – Present Editorial Consultant, *Journal of Neurochemistry*  
2004 – Present Editorial Consultant, *Annals of Neurology*  
2004 – Present Editorial Consultant, *Life Sciences*  
2000 – Present Editorial Consultant, *Brain Research Protocols*  
2000 – Present Editorial Consultant, *Brain Research*  
2000 – Present Editorial Consultant, *Brain Research Reviews*

Advisory Positions:

2016 – Present Member of the Scientific Advisory Board Sensoplex  
2014 – Present Member of the Scientific Advisory Board Cortice Biosciences  
2011 – Present Scientific Advisor Cognition Therapeutics  
2008 – Present Pharmacology Consultant, Affymax  
2008 – Present Preclinical and Pharmacology Consultant, Genyous  
2008 – Present Preclinical and Pharmacology Consultant, Omnitura  
2008 – Present Preclinical and Pharmacology Consultant, Vitala  
2007 – 2012 Pharmacology Consultant, KAI Pharmaceutical  
2005 – 2010 Pharmacology Consultant, AGY Therapeutics

**D. POST-DEGREE HONORS AND AWARDS, INCLUDING MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

2019 – Present Member, American Society for Pharmacology and Experimental Therapeutics (ASPET)  
2018 – Present Member, International Society for Cerebral Blood Flow & Metabolism (ISCBFM)  
2014 – Present Member, Fellow, American Neurological Association (ANA)  
2008 – Present Member, International Behavioral Neuroscience Society (IBNS)  
2008 – Present Member, International Brain Organization (IBRO)  
1997 – Present Member, Society for Neuroscience (SfN)

**E. BIBLIOGRAPHY**

Pending Articles:

In Preparation

1. DAPK1 project Discovery of selective DAPK1 inhibitors and their therapeutic implications in neurological disorders. Matteo Santoro, Alex Ferris, Rachel K. Lam, Claire E. Woods, Peter Ciari, Michael J. Green, Alam Jahangir, Denise Briggs, Mehrdad Shamloo.
2. 6-OHDA Parkinson's mouse model Time course characterization of three 6-OHDA striatal mouse models of Parkinson's disease, NR2B and DAPK1 cell signaling pathway and immunological response. Matteo Santoro, Rachel K. Lam, Sarah Blumenfeld, Peter Ciari, Emily Chu, Angela Tan, Nay L. Saw, Daniel Ryskamp, Mehrdad Shamloo.

3. SARS-CoV-2 S1

Spike protein induces neuroinflammation in mice: a temporal profile of systemic and central cytokine expression. E. B. Defensor, E. Chu, C. E. Woods, S. E. Blumenfeld, S. Falsafi, R. K. Lam, P. Ciari, W. Tan, A. E. Barron, M. Shamloo.

**For submission**

to *Neurobiology of Disease*

Working title: Effects of chemogenetic, pharmacological and genetic modulation of the noradrenergic system on pathology and behavior in mouse models of AD

Andrew K. Evans, Heui Hye Park, Emily Chu, Peter Ciari, Claire Woods, Nay Lui Saw, and Mehrdad Shamloo.

ADRB1 selective agonists - Ready to be submitted to *Bioorganic & Medicinal Chemistry Letters* Functionally Selective Novel Ligands of Beta-Adrenergic Receptors.

Matteo Santoro, Jennifer S. Lin, Alam Jahangir, Michael Green, Bitna Yi, Andrew K. Evans, Kristine Ravina, Jacqueline Ernest, Matthew Klope, Jeyakannu Palaniraja, and Mehrdad Shamloo.

Publications:

1. Andrew K. Evans, Laura M. Vidano, Claire E. Woods, Nay L. Saw, Rachel K. Lam, Emily K. Chu Chris Reading, and Mehrdad Shamloo. High-fat diet induces anxiety, impairs learning and memory, and potentiates systemic inflammation and neuroinflammation in aged male mice. *Brain behavior and Immunity*; doi: 10.1016/j.bbi.2024.02.025. PMID: 38408498.
2. Shamloo, S., Defensor, E., Ciari, P., Ogawa, G., Vidano, L., Lin, J. S., Fortkort, J. A., Shamloo, M., Barron, A. The anti-inflammatory effects of photobiomodulation are mediated by cytokines: Evidence from a mouse model of inflammation. *Frontiers in Neuroscience* E. 2023; 17: 1150156.
3. Revah, O., Gore, F., Kelley, K. W., Andersen, J., Sakai, N., Chen, X., Li, M. Y., Birey, F., Yang, X., Saw, N. L., Baker, S. W., Amin, N. D., Kulkarni, S., Mudipalli, R., Cui, B., Maturation and circuit integration of transplanted human cortical organoids. Nishino, S., Grant, G. A., Knowles, J. K., Shamloo, M., Huguenard, J. R., Deisseroth, K., Paşca, S. *Nature* P. 2022; 610 (7931): 319-326.
4. Evans, A. K., Defensor, E., Shamloo, M. Selective Vulnerability of the Locus Coeruleus Noradrenergic System and its Role in Modulation of Neuroinflammation, Cognition, and Neurodegeneration. *Frontiers in pharmacology* 2022; 13: 1030609.
5. Aloul, K. M., Nielsen, J. E., Defensor, E. B., Lin, J. S., Fortkort, J. A., Shamloo, M., Cirillo, J. D., Gombart, A. F., Barron, A. Upregulating Human Cathelicidin Antimicrobial Peptide LL-37 Expression May Prevent Severe COVID-19 Inflammatory Responses and Reduce Microthrombosis *Frontiers in Immunology* E. 2022; 13: 1-16.

6. Lam, D. D., Williams, R. H., Lujan, E., Tanabe, K., Huber, G., Saw, N. L., Merl-Pham, J., Salminen, A. V., Lohse, D., Spendiff, S., Plastini, M. J., Zech, M., Lochmuller, H., Geerlof, A., Hauck, S. M., Shamloo, M., Wernig, M., Winkelmann, J. Collagen VI regulates motor circuit plasticity and motor performance by cannabinoid modulation. *The Journal of neuroscience : the official journal of the Society for Neuroscience* 1800.
7. Evans AK, Defensor E, Shamloo M. Selective Vulnerability of the Locus Coeruleus Noradrenergic System and its Role in Modulation of Neuroinflammation, Cognition, and Neurodegeneration. *Front Pharmacol.* 2022 Nov 30; 13:1030609. doi:10.3389/fphar.2022.1030609. PMID: 36532725; PMCID: PMC9748190.
8. Revah O, Gore F, Kelley KW, Andersen J, Sakai N, Chen X, Li MY, Birey F, Yang X, Saw NL, Baker SW, Amin ND, Kulkarni S, Mudipalli R, Cui B, Nishino S, Grant GA, Knowles JK, Shamloo M, Huguenard JR, Deisseroth K, Pasca SP. Maturation and circuit integration of transplanted human cortical organoids. *Nature.* 2022 Oct;610(7931):319-326. doi: 10.1038/s41586-022-05277-w. Epub 2022 Oct 12. PMID: 36224417; PMCID: PMC9556304.
9. Aloul KM, Nielsen JE, Defensor EB, Lin JS, Fortkort JA, Shamloo M, Cirillo JD, Gombart AF, Barron AE. Upregulating Human Cathelicidin Antimicrobial Peptide LL-37 Expression May Prevent Severe COVID-19 Inflammatory Responses and Reduce Microthrombosis. *Front Immunol.* 2022 May 12;13:880961. doi: 10.3389/fimmu.2022.880961. PMID: 35634307; PMCID: PMC9134243.
10. Lam DD, Williams RH, Lujan E, Tanabe K, Huber G, Saw NL, Merl-Pham J, Salminen AV, Lohse D, Spendiff S, Plastini MJ, Zech M, Lochmüller H, Geerlof A, Hauck SM, Shamloo M, Wernig M, Winkelmann J. Collagen VI Regulates Motor Circuit Plasticity and Motor Performance by Cannabinoid Modulation. *J Neurosci.* 2022 Feb 23;42(8):1557-1573. doi: 10.1523/JNEUROSCI.0962-21.2021. Epub 2021 Dec 27. PMID: 34965974; PMCID: PMC8883874.
11. De Miguel Z, Khoury N, Betley MJ, Lehallier B, Willoughby D, Olsson N, Yang AC, Hahn O, Lu N, Vest RT, Bonanno LN, Yerra L, Zhang L, Saw NL, Fairchild JK, Lee D, Zhang H, McAlpine PL, Contrepois K, Shamloo M, Elias JE, Rando TA, Wyss-Coray T. Exercise plasma boosts memory and dampens brain inflammation via clusterin. *Nature.* 2021 Dec;600(7889):494-499. doi: 10.1038/s41586-021-04183-x. Epub 2021 Dec 8. PMID: 34880498; PMCID: PMC9721468.
12. Evans AK, Park HH, Saw NL, Singhal K, Ogawa G, Leib RD, Shamloo M. Age-related neuroinflammation and pathology in the locus coeruleus and hippocampus: beta-adrenergic antagonists exacerbate impairment of learning and memory in aged mice. *Neurobiol Aging.* 2021 Oct;106:241-256. doi: 10.1016/j.neurobiolaging.2021.06.012. Epub 2021 Jun 20. PMID: 34320462; PMCID: PMC8419102.
13. Wawro AM, Gajera CR, Baker SA, Leśniak RK, Montine KS, Fischer CR, Saw NL, Shamloo M, Montine TJ. Enantiomers of 4-aminopentanoic acid act as false GABAergic

- neurotransmitters and impact mouse behavior. *J Neurochem.* 2021 Sep;158(5):1074-1082. doi: 10.1111/jnc.15474. Epub 2021 Aug 2. PMID: 34273193.
14. Wawro AM, Gajera CR, Baker SA, Leśniak RK, Fischer CR, Saw NL, Shamloo M, Montine TJ. Enantiomers of 2-methylglutamate and 2-methylglutamine selectively impact mouse brain metabolism and behavior. *Sci Rep.* 2021 Apr 14;11(1):8138. doi: 10.1038/s41598-021-87569-1. PMID: 33854131; PMCID: PMC8047011.
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  16. Tsai RM, Miller Z, Koestler M, Rojas JC, Ljubenkova PA, Rosen HJ, Rabinovici GD, Fagan AM, Cobigo Y, Brown JA, Jung JI, Hare E, Geldmacher DS, Natelson-Love M, McKinley EC, Luong PN, Chuu EL, Powers R, Mumford P, Wolf A, Wang P, Shamloo M, Miller BL, Roberson ED, Boxer AL. Reactions to Multiple Ascending Doses of the Microtubule Stabilizer TPI-287 in Patients With Alzheimer Disease, Progressive Supranuclear Palsy, and Corticobasal Syndrome: A Randomized Clinical Trial. *JAMA Neurol.* 2020 Feb 1;77(2):215-224. doi: 10.1001/jamaneurol.2019.3812. PMID: 31710340; PMCID: PMC6865783.
  17. Liu Q, Johnson EM, Lam RK, Wang Q, Bo Ye H, Wilson EN, Minhas PS, Liu L, Swarovski MS, Tran S, Wang J, Mehta SS, Yang X, Rabinowitz JD, Yang SS, Shamloo M, Mueller C, James ML, Andreasson KI. Peripheral TREM1 responses to brain and intestinal immunogens amplify stroke severity. *Nat Immunol.* 2019 Aug;20(8):1023-1034. doi: 10.1038/s41590-019-0421-2. Epub 2019 Jul 1. PMID: 31263278; PMCID: PMC6778967.
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  19. Bieri G, Brahic M, Bousset L, Couthouis J, Kramer NJ, Ma R, Nakayama L, Monbureau M, Defensor E, Schüle B, Shamloo M, Melki R, Gitler AD. LRRK2 modifies  $\alpha$ -syn pathology and spread in mouse models and human neurons. *Acta Neuropathol.* 2019 Jun;137(6):961-980. doi: 10.1007/s00401-019-01995-0. Epub 2019 Mar 29. PMID: 30927072; PMCID: PMC6531417.
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Review Articles: (1 total)

1. **Shamloo, M.**, Belichenko, P.V., Mobley, W.C. Comprehensive Behavioral Assays to Enhance Phenotype to Genotype Linkages and Therapeutic Screening in Mouse Models of Down Syndrome. *Future Neurology* Jul;5(4):467-71, 2010.

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1. Wieloch T, Hu BR, **Shamloo, M.** Aberrant Cell Signaling in the Postischemic Brain: An Integrated View. In: Welch KMA, Caplan, L.R., Reis, D.J., Siesjö, B.K., Weir, B., eds. Primer on Cerebrovascular Diseases. San Diego: Academic Press, 1997. pp. 227-230.
2. **Shamloo, M.**, and Wieloch T. Preconditioning Depresses Excitatory Cell Signaling Following the Second Lethal Insult. In: Ito U, et al, eds. Maturation Phenomena in Cerebral Ischemia II. Heidelberg: Springer-Verlag, 1997. pp. 77-84.

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1. **Shamloo, M.** Ischemic Tolerance and Cell Signaling in the Rat Brain, ISBN 91-628-3715-X, 1999 (*Ph.D. thesis published as an independent book with ISBN number*)

Invited Presentations and Posters (20 shown here)

- 2016 "Inhibition of Sig2R/PGRMC: A potential strategy for treating Alzheimer's Disease," Society for Neuroscience 2016, San Diego. Talk.
- 2016 "Beta1 adrenergic receptors modulate neurocognitive function, neuroinflammation and pathology in a mouse model of Alzheimer's Disease" Society for Neuroscience 2016, San Diego. Poster.
- 2016 "Role of  $\beta$ -adrenoreceptor partial agonist in pathophysiology and recovery of ischemic stroke" Society for Neuroscience 2016, San Diego. Poster.
- 2016 Npas4 as a Marker of Recent Neuronal Activity, Winter Conference on Neural Plasticity (WCNP), Lahaina, HI.
- 2015 "Targeting  $\beta_1$ -Adrenergic receptor as a novel therapeutic approach for treatment of Alzheimer's disease." Brian Disorders and Therapeutics, London United kingdom. Talk.
- 2015 "Development of novel therapeutics targeting Sig2R/PGRMC1 for Alzheimer's Disease, "Society for Neuroscience 2015, Chicago, IL. Poster.

- 2015 “A small molecule p75 neurotrophin receptor ligand reduces Huntington’s Disease phenotypes in R6/2 and BACHD mice “, Society for Neuroscience 2015, Chicago, IL. Poster.
- 2015 “Chronic low level beta1-adrenergic receptor activation decreases amyloid beta, modulates the neuroimmune response and improves neurocognitive function in two models of Alzheimer’s disease “, Society for Neuroscience 2015, Chicago, IL. Poster.
- 2014 “Effects of TPI 287, a novel taxoid, on a transgenic mouse model of Alzheimer’s disease “, Society for Neuroscience 2014, Washington. Poster.
- 2014 “Role of  $\beta_1$ -adrenergic signaling in Alzheimer’s disease (AD) “, Society for Neuroscience 2014, Washington. Poster.
- 2014 “Aberrant Subcellular Distribution of CREB/PCREB in Alzheimer’s disease “, Society for Neuroscience 2014, Washington. Poster.
- 2014 “Cathepsin s: a novel therapeutic target for Alzheimer’s disease,” Society for Neuroscience 2014, Washington. Poster.
- 2014 “Passive immunization with the anti-A $\beta$  oligomer antibody ACU-3B3 improves behavioral deficits in hAPPSL transgenic mice “, Society for Neuroscience 2014, Washington. Poster.
- 2014 Targeting  $\beta_1$ -Adrenergic receptor as a novel therapeutic approach for treatment of Alzheimer’s disease Drug Discovery and Therapy World Congress, Boston, MA. Talk.
- 2012 “Implication of the transcription factor Npas4 in cognitive and social functions” International Behavioral Neuroscience Society, Kailua-Kona, Hawaii. Talk.
- 2012 “Activation of  $\beta_1$ -Adrenergic Receptor as a Potential Memory Enhancement Strategy in Neuro Cognitive Disorders”. Neurobiology Grand Rounds, University of Lund, Sweden, Wallenberg Neuroscience Research Center. Talk.
- 2011 “Implication of  $\beta_1$ -Adrenergic Receptor in Social Recognition.” Cell Symposia: Autism Spectrum Disorders: From Mechanisms to Therapies, Arlington, Virginia. Poster.
- 2011 “Xamoterol Rescues Memory Deficit in Mouse Model of Down Syndrome by Activation of  $\beta_1$ -Adrenergic Receptor.” 8<sup>th</sup> IBRO (International Brain Research Organization) World Congress of Neuroscience, Florence, Italy.
- 2011 “Xamoterol Rescues Memory Deficit in Mouse Model of Down Syndrome by Activation of  $\beta_1$ -Adrenergic Receptor.” International Behavioral Neuroscience Society, Steamboat Springs, Colorado. Talk.
- 2008 “Cognitive Testing in Animal Models of Huntington’s Disease.” CHDI Foundation, Inc., Los Angeles, California.

## F. PATENTS

\*The patent listed below is “Active” in the US and “Pending” in other regions.

1. Evans AK, Green MJ, Jahangir A, Shamloo M, Yi B, inventors; The Board of Trustees of the Leland Stanford Junior University, assignee. Adrenergic Receptor Modulating Compounds and Methods of Using the Same, US11173144B2. November 16 2021.



2. Evans AK, Green MJ, Jahangir A, Shamloo M, Yi B, inventors; The Board of Trustees of the Leland Stanford Junior University, assignee. Adrenergic Receptor Modulating Compounds and Methods of Using the Same, EP17796976.3. May 12 2017.
3. Evans AK, Green MJ, Jahangir A, Shamloo M, Yi B, inventors; The Board of Trustees of the Leland Stanford Junior University, assignee. Adrenergic Receptor Modulating Compounds and Methods of Using the Same, CN201780038617.4A. May 12 2017.
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