ANDREW ALLEN PIEPER **Updated July 12, 2025**

Current Address:

Office: Case Western Reserve University
Wolstein Research Building – 4131
2103 Cornell Road
Cleveland, OH 44106-7294
Phone: (216) 368-4273
Email: Andrew.Pieper@case.edu

Home: 2900 Glengary Rd
Shaker Heights, OH 44120
Phone: (972) 768-1935
Email: AndrewAPieper@gmail.com

Birthdate: April 21, 1970 (Covington, LA)

Citizenship: United States of America

Education:

1992 B.A. Earlham College, Richmond, IN (Biology and Chemistry Majors)
2001 M.D. Johns Hopkins University School of Medicine, Baltimore, MD
2001 Ph.D. Johns Hopkins University School of Medicine, Baltimore, MD
Solomon H. Snyder Department of Neuroscience
Laboratory of Dr. Solomon H. Snyder
Thesis: “The Role of Intracellular Energy Dynamics in Cell Death”

Postdoctoral Training:

2001-2002 Internship, Medicine. Johns Hopkins Hospital – Bayview. Baltimore, MD
2002-2004 Resident Physician, Psychiatry, Johns Hopkins Hospital, Baltimore, MD
2004-2005 Resident Research Tract, Psychiatry, University of Texas Southwestern Medical Center (UTSWMC), Dallas, TX
2005-2006 Research Fellow, Biochemistry, Laboratory of Dr. Steven L. McKnight UTSWMC, Dallas, TX

Licensure and Certification:

2006-2012 Texas Medical License M3358
2007-present American Board of Psychiatry and Neurology
2012-2018 Iowa Medical License 40699
2018-present Ohio Medical License 25.134828

Academic Appointments:

2006-2012 Assistant Professor, Departments of Psychiatry and Biochemistry UTSWMC, Dallas, TX
2012-2015 Associate Professor (tenure), Department of Psychiatry University of Iowa Carver College of Medicine (UICCOM), Iowa City, IA
2015-2018 Professor (tenure), Department of Psychiatry, UICCOM, Iowa City, IA
2012-2018 Director of Translational Neuroscience in Psychiatry, UICCOM, Iowa City, IA
2013-2018 Psychiatrist, Iowa City VA Health Care System

2014-present Faculty Member, Weill Cornell Autism Research Center
2017-2018 Associate Director for Strategic Development
Iowa Neuroscience Institute, UIOCCOM, Iowa City, IA
2019-2023 Director, Translational Therapeutics Core, Cleveland Alzheimer's Disease Research Center, CWRU, Cleveland, OH
2018-2024 Adjunct Professor of Psychiatry, UICCOM, Iowa City, IA
2018-present Professor of Psychiatry, Case Western Reserve University (CWRU), Cleveland, OH
2018-present Professor of Neuroscience, CWRU, Cleveland, OH
2018-present Psychiatrist, Louis Stokes Cleveland VA Medical Center, Cleveland, OH
2018-present Director, Center for Brain Health Medicines, Harrington Discovery Institute, University Hospitals Cleveland Medical Center (UHCMC), Cleveland, OH
2018-present Morley-Mather Chair in Neuropsychiatry, UHCMC, Cleveland, OH

2022-present Rebecca E. Barchas, M.D., Professor in Translational Psychiatry, CWRU, Cleveland, OH
2022-present Senior Attending, Department of Psychiatry, UHCMC, Cleveland, OH

Clinical Service:

2006-2012 Attending Psychiatrist, Parkland Psychiatry Emergency Center, Dallas, TX
2012-2018 Inpatient Attending Psychiatrist, Iowa City VA Health Care System, Iowa City, IA
2018-present Outpatient Attending Psychiatrist, Louis Stokes Cleveland VA Medical Center, Cleveland, OH

Awards and Honors:

1987 Eagle Scout
1988 Earlham College Community Service Scholarship
1992 Earlham College Department of Chemistry, Departmental Honors
1992 Earlham College Department of Biology, Departmental Honors
1992 Earlham College, College Honors
1992 Phi Beta Kappa
1992 Earlham College, Russel L. Malcolm Premedical Award
2003 Johns Hopkins Hospital, Department of Psychiatry Administrative Resident
2003 Janssen Research Scholars on Severe Mental Illness / APIRE Award Fellowship
2005 UTSWMC Department of Psychiatry Chairman's Research Award
2005 UTSWMC Physician Scientist Training Program Fellowship Award
2005 David Nathan Meyerson Fellow in Psychiatric Research Award
2006 Lilly Psychiatric Research Fellowship Award
2007 Merck Early Academic Career Award
2007 NARSAD Young Investigator Award
2007 The Hartwell Foundation Individual Biomedical Research Award
2008 The Hartwell Foundation Research Collaboration Award
2009 The Hartwell Foundation Collaborative Innovation Award
2008 Rett Syndrome Research Trust Research Award
2009 NARSAD Young Investigator Award
2009 UTSWMC Hi Risk / Hi Impact Research Award
2009 American College of Neuropsychopharmacology Travel Award
2009 Staglin Family Rising Star Research Award (International Mental Health Research Organization)

2010 Ted Nash Long Life Foundation Research Award
2011 Friends of the Dallas Alzheimer's Disease Center Research Award
2011 Daniel X. Freedman Award, Honorable Mention, Outstanding Basic Research Achievement by a Brain and Behavior Research Foundation Young Investigator
2014 University of Iowa Inventor Award
2016 American Society for Clinical Investigation, elected member
2017 University of Iowa Inventor Award
2018 Morley-Mather Chair in Neuropsychiatry, UHCMC, Cleveland, OH
2021 American College of Psychiatrists, elected member
2022 Rebecca E. Barchas, M.D., Chair in Translational Psychiatry, CWRU, Cleveland, OH
2022 The Neuroscience Summit, Neuroscience School of Advanced Studies, Crans-Montana, Switzerland
2023 John S. Diekhoff Award for Distinguished Graduate Student Mentoring (CWRU highest mentoring honor that recognizes outstanding contributions to the education of graduate students through advising)
2025 DASH Prize in Traumatic Brain Injury Research, National Neurotrauma Society (recognizes a paradigm-shifting advance in understanding and treating traumatic brain injury)

Professional Societies:

1990-present Society for Neuroscience
1993-present American Psychiatric Association
2013-present Psychiatric Research Society
2016-present American Society for Clinical Investigation
2016-present Society for Redox Biology and Medicine
2017-present Sigma Xi Scientific Research Society
2017-present Society of Biological Psychiatry
2018-present American Heart Association
2018-present American Association for the Advancement of Science
2018-present American Federation for Medical Research
2019-present Alzheimer's International Society
2020-present National Neurotrauma Society
2021-present Global Association for the Study of Neurodegenerative Diseases
2021-present American College of Psychiatrists

Invited Scientific Talks:

1998 Annual Meeting on Ataxia-Telangiectasia, National Institutes of Health, Bethesda, MD "Potential for Inhibition of PolyADPRibosylation in Treatment of Neurodegenerative Disease"
2005 Janssen Research Scholars on Severe Mental Illness / APIRE, Emory University, Atlanta, GA
2006 Annual Research Colloquium for Junior Investigators: Neuroscience and Neuroimaging Across the Lifespan / APIRE, San Diego, CA
2006 Neurogenesis and the Adult Brain, Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
2007 Symposium on Basic Genetics of Psychiatric Disease, International Conference on Schizophrenia Research, The Broadmoor, Colorado Springs, CO
2007 Cold Spring Harbor Laboratory Department of Neuroscience, "Impaired Survival of Newborn Hippocampal Neurons in Schizophrenia," Cold Spring Harbor, NY
2007 8th Annual Rett Syndrome Symposium, Chicago, IL

2008 Tokyo Institute of Psychiatry, Schizophrenia Research Seminar, Tokyo, Japan.
2008 RIKEN Brain Science Institute Seminar, Tokyo, Japan
2008 University of Tokyo Meeting on Neurogenesis, Tokyo, Japan
2008 Tohoku University Neuroscience Seminar, Sendai, Japan
2008 "Rett Syndrome: Translating Basic Science into Novel Treatment Strategies," Department of Neuroscience Seminar, UTSWMC, Dallas, TX
2008 Duke University Department of Neurobiology Seminar
2008 1st Annual The Hartwell Foundation Meeting, Memphis, TN
2009 Centre de Recherche du CHUL (CHUQ) Department of Neuroscience Seminar, Quebec, Canada
2009 2nd Annual The Hartwell Foundation Meeting, Memphis, TN
2009 Staglin Family Rising Star Award Lecture, Staglin Family Vineyard, Rutherford, CA
2009 Johns Hopkins University Department of Psychiatry, Division of Molecular Psychiatry Seminar, Baltimore, MD
2010 University of Virginia Department of Neuroscience Seminar, Charlottesville, VA
2010 3rd Annual The Hartwell Foundation Meeting, Ithaca, NY
2010 "Neuroscience of Schizophrenia," Neuro2010 Japan, Kobe, Japan
2010 Department of Natural Science University Lecture, University of Puerto Rico – Rio Piedras Campus, San Juan, PR
2010 Neuroscience Seminar, Biogen Inc., Boston, MA
2011 UTSWMC Department of Psychiatry Grand Rounds, Dallas, TX
2011 Burke / Cornell Medical Research Institute Neuroscience Seminar, Burke Neurological Institute, White Plains, NY
2011 Gail F. Beach Memorial Visiting Lectureship, Miami Project to Cure Paralysis, Leonard M. Miller School of Medicine, University of Miami, Coral Gables, FL
2011 Progress in Neurosciences (PINS) Seminar, Graduate Program in Neuroscience, Department of Neurology and Neuroscience, Weill Cornell Medical College, New York, NY
2011 Johns Hopkins University Department of Psychiatry Seminar, Division of Neurobiology, "Impaired Neurogenesis in Cognitive Deficits in Schizophrenia," Baltimore, MD
2011 Neurogenesis 2011 Japan (co-organizer of meeting), Kobe, Japan
2011 Mini- Symposium on Autism, MIND Institute, University of California Davis, Sacramento, CA
2011 Mount Sinai Friedman Brain Institute Seminar, New York, NY
2011 4th Annual The Hartwell Foundation Meeting, Memphis, TN
2011 UICCOM Department of Psychiatry Seminar, Iowa City, IA
2012 Johns Hopkins University, Evaluating New Molecules and Therapies in Psychopharmacology: Key Issues Facing Psychiatry – What's New, Important and Changing, "In Vivo Discovery of Neuroprotective Molecules," Baltimore, MD
2012 Ironwood Pharmaceutical Seminar on In Vivo Drug Discovery, "Identification of novel molecules that reduce compulsive behavior," Boston, MA
2012 UTSWMC Alzheimer's Disease Research Center Seminar, Dallas, TX
2012 UTSWMC Translational Research in Mechanisms of Neurodegeneration Seminar, Dallas, TX
2012 UTSWMC Convergence on Aging Seminar, "Proneurogenic strategies to combat cognitive decline in aging," Dallas, TX
2012 University of Alabama at Birmingham, Department of Neurobiology Seminar, Birmingham, AL
2012 UICCOM Psychiatry Research Seminar, Iowa City, IA
2012 5th Annual The Hartwell Foundation Meeting, Duke University, Durham, NC

2012 UICCOM Department of Neurology, Grand Rounds, Iowa City, IA
2013 Annual Society of Biological Psychiatry Meeting, San Francisco, CA
2013 UICCOM MSTP Summer Research Series, Iowa City, IA
2013 Kirksville College of Osteopathic Medicine, Neuroscience Seminar, Kirksville, MO
2013 Paul W. Penningroth Lecture, Cedar Center Psychiatric Group, Cedar Rapids, IA
2013 Peking-Tsinghua Center for Life Sciences & College of Life Science, University Lecture, Beijing, China
2013 UICCOM Department of Psychiatry Research Seminar, Iowa City, IA
2013 6th Annual The Hartwell Foundation Meeting, University of Virginia, Charlottesville, VA
2013 RISE Seminar, University of Puerto Rico – Rio Piedras Campus, San Juan, PR
2013 UICCOM Department of Human Toxicology Seminar, Iowa City, IA
2013 UICCOM Department of Molecular and Cellular Biology Seminar, Iowa City, IA
2013 UICCOM Free Radical & Radiation Biology Program Seminar, Iowa City, IA
2013 UICCOM Department of Molecular Physiology and Biophysics Seminar, Iowa City, IA
2013 UICCOM Department of Chemistry Seminar, Iowa City, IA
2014 UICCOM Department of Biochemistry Seminar, Iowa City, IA
2014 University of Chicago, Division of Neurodegenerative Disease Seminar, Chicago, IL
2014 UICCOM School of Pharmacy Seminar, Iowa City, IA
2014 University of Texas Medical Branch (UTMB) at Galveston, Department of Pharmacology Seminar, Galveston, TX
2014 UICCOM Department of Neuroscience Seminar, Iowa City, IA
2014 Ojemann Lectureship, UICCOM Department of Neurosurgery, Iowa City, IA
2014 AbbVie, “Biology of P7C3 Compounds,” North Chicago, IL
2014 University of Puerto Rico – Rio Piedras Campus, Minority Access to Research Careers Seminar, San Juan, PR
2014 UICCOM Department of Medicine Resident Research Seminar, Iowa City, IA
2015 UICCOM Department of Neuroscience Seminar, Iowa City, IA
2015 Psychiatric Research Society, “Hippocampal Neurogenesis in Mental Health,” Salt Lake City, UT
2015 Translational Science 2015, Washington DC
2015 AbbVie, “In Vivo Discovery of Neuroprotective Compounds,” Frankfurt, Germany
2015 Baylor College of Medicine, Behavioral Neurology & Neuropsychiatry (BNNP) Conference, Houston, TX
2015 UTSWMC, Center for Alzheimer’s and Neurodegenerative Diseases Seminar, Dallas, TX
2015 Sunovion Pharmaceuticals, “In Vivo Discovery of Neuroprotective Compounds,” Marlborough, MA
2015 UICCOM Department of Psychiatry Grand Rounds, Iowa City, IA
2015 University of Nebraska Medical Center, Department of Pharmacology and Experimental Neuroscience Grand Rounds, Lincoln, NE
2015 UICCOM Behavioral-Biomedical Interface Training Program Seminar, Iowa City, IA
2016 Emory University, Department of Neurology Grand Rounds, Atlanta, GA
2016 University of South Dakota, Department of Neurology Grand Rounds, Vermillion, SD
2016 Iowa State University College of Veterinary Medicine, Department of Biomedical Sciences Seminar, Des Moines, IA
2016 UICCOM Department of Psychiatry Grand Rounds, Iowa City, IA
2017 Progress in Neurosciences (PINS) Seminar, Graduate Program in Neuroscience, Department of Neurology and Neuroscience, Weill Cornell Medical College, New York, NY
2017 UTMB at Galveston, Department of Anesthesiology Grand Rounds, Galveston, TX

2017 UTMB at Galveston, Department of Psychiatry Grand Rounds, Galveston, TX
2017 Harrington Lecture Series, Harrington Discovery Institute, UHCMC, Cleveland, OH
2017 CWRU, Department of Psychiatry Grand Rounds, Cleveland, OH
2017 Johns Hopkins University Department of Neuroscience Seminar, Baltimore, MD
2017 Iowa Neuroscience Institute Alzheimer's Association Meeting, Iowa City, IA
2017 Brockman Medical Research Foundation, Neurodegeneration Seminar, Houston, TX
2017 Molecular Psychiatry Meeting, "L-Type Calcium Channels in Neuropsychiatric Disease," San Francisco, CA
2017 Cytokinetics Inc., "In vivo drug discovery," San Francisco, CA
2018 UICCOM Holden Comprehensive Cancer Center Grand Rounds, "Protection From Radiation- and Chemotherapy-Induced Neurodegeneration," Iowa City, IA
2018 CWRU, Medical Scientist Training Program (MSTP) Retreat Seminar, Newbury, OH
2018 Cleveland Clinic Foundation (CCF) Department of Neuroscience Seminar, Cleveland, OH
2018 Louis Stokes Cleveland VA Medical Center Department of Psychiatry Grand Rounds, Cleveland, OH
2018 CWRU Department of Pathology Neurodegeneration Seminar, Cleveland, OH
2019 CWRU Department of Neuroscience Seminar, Cleveland, OH
2019 7th Annual Scientific Conference of the European Association of Psychosomatic Medicine, Rotterdam, The Netherlands
2019 Brockman Medical Research Foundation, "Novel Treatment Approaches: Focus on Parkinson's Disease and Other Neurodegenerative Disorders," Aspen, CO
2019 Brockman Medical Research Foundation, "Neuroprotection in Neuropsychiatric Disorders," Aspen, CO
2019 Louis Stokes Cleveland VA Medical Center Academic Partnership, Cleveland, OH
2019 MetroHealth Medical Center, Rehabilitation Research Seminar, "A Novel Approach to Treating and Monitoring Traumatic Brain Injury," Cleveland, OH
2020 Stanford University, American Heart Association / Allen Foundation Seminar on Neurovascular Health, "Acetylated-Tau is a Mechanism-Based Biomarker and Therapeutic Target in Neurodegeneration," Stanford, CA
2020 Alaska Brain Institute, "New Approaches to Treating Traumatic Brain Injury", Anchorage, AK (February 29, 2020)
2020 Alaska Brain Institute, "Acetylated Tau as a New Biomarker and Therapeutic Target in Traumatic Brain Injury", Anchorage, AK (February 29, 2020)
2020 Creating Roadmaps to Assess Visual Consequences of TBI, VA Field-Based Meeting, "Acetylated Tau as a New Biomarker and Therapeutic Target in Traumatic Brain Injury," Washington DC, (June 21, 2020)
2020 Creating Roadmaps to Assess Visual Consequences of TBI, VA Field-Based Meeting, "A Novel Target of Biomarker of TBI," Washington DC, (June 24, 2020)
2020 UHCMC Research and Innovation Day, Focus on Neurodegeneration, "Acetylated Tau as a New Biomarker and Therapeutic Target in Traumatic Brain Injury," Cleveland, OH (October 29, 2020)
2020 Louis Stokes Cleveland VA Medical Center, Topics in Geriatric Medicine: Dementia, "New Opportunities for Neuroprotection," Cleveland, OH (November 13, 2020)
2020 1st Annual Cleveland Alzheimer's Disease Research Center Joint Residency Education Core and Translational Therapeutics Core Retreat, "Opportunities for Translation of Basic Science Discoveries in Alzheimer's Disease," Cleveland, OH (August 21, 2020)
2020 UHCMC Institute for Research and Development Seminar, "Discovery and Development of Neuroprotective Drugs," Cleveland, OH (September 23, 2020)

2021 Louis Stokes Cleveland VA Medical Center Research Seminar, “Discovery of New Therapeutic Opportunities in Neurodegeneration,” Cleveland, OH (January 7, 2021)
2021 CCF, Translational Therapeutics Core of the Cleveland Alzheimer’s Disease Research Center, Cleveland, OH (January 22, 2021)
2021 Cleveland FES Center Research Seminar in Rehabilitation, “Pharmacologic Approaches to Enhancing Functional Recovery After Brain Injury,” Cleveland, OH (March 2, 2021)
2021 Alamar Bio, “Acetylated-Tau as a Diagnostic Blood-Based Biomarker for Brain Injury and Neurodegeneration,” Fremont, CA (March 17, 2021)
2021 UHCMC Ventures, “Diagnosis and Staging of Traumatic Brain Injury with Acetylated-Tau Blood Biomarker,” Cleveland, OH (April 6, 2021)
2021 UHCMC Concussion Group Seminar, “Discovery of New Therapeutic Opportunities in Neurodegeneration,” Cleveland, OH (April 28, 2021)
2021 CCF, Translational Therapeutics Core of the Cleveland Alzheimer’s Disease Research Center, Cleveland, OH (May 4, 2021)
2021 Alzheimer’s Drug Discovery Foundation 15th Annual Drug Discovery for Neurodegeneration Workshop, (Chair) “Case Studies: Chasing New Pathways,” (May 4-5, 2021)
2021 Michael E. DeBakey VA Medical Center, Center for Translational Research on Inflammatory Disease (CTRID) Research Seminar, “Discovery of New Therapeutic Opportunities in Neurodegeneration,” Houston, TX (May 6, 2021)
2021 Harrington Heart and Vascular Center Research Seminar, UHCMC, “Discovery of New Neuroprotective Opportunities,” Cleveland, OH (May 18, 2021)
2021 Inaugural International Research Conference on Neurodegenerative Diseases, Global Association for the Study of Neurodegenerative Diseases, (Co-Chair) “Organelle Dynamics and Trafficking Session; Discovery of a Neuroprotective Molecule,” Baltimore, MD (July 22, 2021)
2021 CWRU Department of Neuroscience Translational Neurosciences Symposium, “Discovery and Application of a Neuroprotective Molecule in Brain Injury and Disease,” Cleveland, OH (August 18, 2021)
2021 Joint Retreat of the Neurodegeneration T32 and the Research Education Core and Translational Therapeutics Core of the Cleveland Alzheimer’s Disease Research Center, “Application of Basic Neuroscience Discoveries to Development of Therapeutics,” University Squire Valleevue Farm, Hunting Valle, OH (August 19, 2021)
2022 CWRU Department of Neurology Grand Rounds, “New Treatment and Biomarker Approaches in Brain Injury,” Cleveland, OH (March 11, 2022)
2022 Lieber Research Institute and Johns Hopkins University Department of Pharmacology Research Seminar, “Discovery of Novel Treatments for Neuropsychiatric and Neurodegenerative Disease,” Baltimore, MD (April 4, 2022)
2022 CWRU Departments of Pathology and Immunology Grand Rounds, “Discovery of Novel Neuroprotective Strategies,” Cleveland, OH (April 19, 2022)
2022 Louis Stokes Cleveland VA Medical Center, GRECC Symposium, “Aging-Specific Neuroprotective Therapies,” Cleveland, OH (May 13, 2022)
2022 CCF, Translational Therapeutics Core of the Cleveland Alzheimer’s Disease Research Center, Cleveland, OH (May 17, 2022)
2022 CWRU MSTP Annual Retreat, “Discovery and Development of Neuroprotective Strategies,” Geneva on the Lake, OH (July 1, 2022)
2022 CWRU, Inaugural Rebecca E. Barchas, M.D., Professor in Translational Psychiatry

Lecture, “Discovery of Neuroprotective Strategies in Neuropsychiatric Disease,” Cleveland, OH (July 8, 2022)

2022 International Research Conference on Neurodegenerative Diseases, (Co-Chair) “Trending Topics,” Omaha, NE (July 18-19, 2022)

2022 Duke University Lemur Center Seminar, “Discovery of a neuroprotective chemical,” Raleigh-Durham, NC (September 29, 2022)

2022 4th International Conference on Persulfide and Sulfur Biology, “Protection of the aging brain from neurodegeneration and Alzheimer’s disease,” Sendai, Japan (October 31, 2022), (Chair) “Supersulfide in Development and Aging,” October 31, 2022

2022 Center for Translational Research on Inflammatory Diseases (CTRID) Research Seminar Series, Michael E. DeBakey VA Medical Center, “Neuroprotection in Acute and Chronic Brain Injury,” Houston, TX (December 1, 2022)

2023 Brain Health & Cognitive Impairment (BHCI) Annual Meeting, American Heart Association. “Restoring the Neurovascular Unit,” Dallas, TX (February 11, 2023)

2023 Bugher Symposium, American Heart Association, Dallas, TX (February 11, 2023) Panelist, “Dementia Breakthroughs”

2023 The 28th Annual Meeting of the Korean Society for Brain and Neural Sciences. Mechanisms of Neural injury in neurodegenerative disease. “Reversal of Chronic Neurodegenerative Disease with an NAD^+/NADH-stabilizing Neuroprotective Molecule.” Busan, Korea (September 7, 2023)

2023 University of Kentucky Spinal Cord and Brain Injury Research Center Seminar, Department of Physiology Seminar Series, “Therapeutic Approaches to Acute and TBI and the Transition to Chronic Neurodegeneration,” University of Kentucky, Lexington, KY (November 6, 2023)

2023 Society for Redox Biology and Medicine (SfRBM) 30th Annual Conference and Society for Free Radical Research International 21st Biennial Conference, Punta del Este, Uruguay (November 17, 2023), (Co-Chair) “Post-translational Redox Modifications of Proteins in Inflammatory Signaling: S-Nitrosylation and S-Persulfidation”

2024 Johns Hopkins University School of Medicine, Department of Pharmacology and Molecular Sciences, “Prevention and restoration of cognitive function in traumatic brain injury and Alzheimer’s disease,” Baltimore, MD (January 17, 2024)

2024 International Stroke Conference, “Protecting the Blood-Brain Barrier in Preclinical Models of Neurodegenerative Disease,” Phoenix, AZ (February 7, 2024)

2024 American Heart Association Allen Foundation Brain Health Cognition Initiative Conference, Bugher Foundation, “New Insights Into Modeling, Preventing, and Reversing Alzheimer’s disease.” Phoenix, AZ (February 10, 2024)

2024 14th Annual Traumatic Brain Injury Conference, Washington DC (May 5, 2024) “Prevention of post-TBI chronic neurodegenerative disease.”

2024 Inaugural Summit on Subconcussive Trauma and Brain Health, “Prevention of Post-TBI Neurodegeneration and Cognitive Impairment,”Tampa, FL (May 17, 2024)

2024 The 7th World Congress on Hydrogen Sulfide in Biology and Medicine, (co-Chair) “Symposium on Gasotransmitters and Neurotransmitters: Mini-Symposium in Honor of Solomon H. Snyder,” Baltimore, MD (June 5, 2024)

2024 Symposium on Coaylation and Neurotransmitter Signaling in Aging and Neurodegeneration, (co-Chair) “Aberrant coaylation in mouse models of Alzheimer’s disease and aging.” Baltimore, MD (June 6, 2024)

2024 Alzheimer’s Association International Conference (AAIC), (Chair) “Mechanisms of

Underlying Brain Resilience or Pathogenesis in AD," Philadelphia, PA (July 30, 2024)

2024 Weill Cornell Medicine, Neurobiology of Brain Injury Seminar Series, "Prevention of chronic neurodegeneration and cognitive impairment after traumatic brain injury," New York City, NY (September 12, 2024)

2024 Neurolongevity, Neuroprotection, and Neurorestoration Future Vision Forum, Session Leader and Speaker: "Modern Topics in Neurodegeneration," Santa Barbara, CA (September 19, 2024)

2024 Nanosymposium Director, "Mechanisms of Neuroprotection: Therapy Development," International Society for Neuroscience Meeting, Chicago, IL (October 5, 2024)

2024 University of Alabama, Department of Psychiatry Grand Rounds, "Prevention and restoration of neuropsychiatric function in neurodegenerative disease," Birmingham, AL (October 20, 2024)

2024 NEOMED (Northeast Ohio Medical University), Pharmaceutical Sciences Seminar Series, "Prevention and reversal of neurodegenerative disease," Rootstown, OH (November 8, 2024)

2025 Case Western Reserve University Department of Neurology Grand Rounds, "Prevention and Reversal of Neurodegenerative Disease," Cleveland, OH (March 28, 2025)

2025 University Hospitals – NEOMED Neurodegenerative Research Symposium, "Prevention of neurodegeneration and accelerated Alzeheimer's disease after traumatic brain injury," Rootstown, OH (May 27, 2025)

2025 Symposium Speaker, "Guardians and Saboteurs: The Role of Astrocyte, Microglia, and the Blood-Brain Barrier in TBI and SCI Repair." Annual Symposium of the National Neurotrauma Society, Philadelphia, PA (June 16, 2025)

2025 National Neurotrauma Society DASH Award Lecture, "Prevention and Reversal of chronic traumatic brain injury." Annual Symposium of the National Neurotrauma Society, Philadelphia, PA (June 17, 2025)

2025 5th International Research Conference on Neurodegenerative Diseases, "Neuroprotective strategies for traumatic brain injury (TBI) and TBI-induced acceleration of Alzheimer's disease." Global Association for the Study of Neurodegenerative Diseases, Gainesville, FL (July 10, 2025).
*Session Co-Chair for Risk Factor Session 2: TBI & Neurodegeneration Risk.

Invited Community Talks:

2010 National Public Radio Interview on Neuroprotection, KERA Dallas, Fort Worth

2010 International Mental Health Research Organization, "Discovery of New Neuroprotective Treatments for Mental Illness," Dallas, TX

2010 Little Elm High School, "Careers in Mental Illness," Little Elm, TX

2011 Friends of the Alzheimer's Disease Center Lecture Series, Dallas, TX

2011 Free Your Mind Radio Show with Brian Canning, Next Wave Production, International Mental Health Research Organization Interview on Schizophrenia Treatment and Research, Los Angeles, CA

2013 Cedar Center of Psychiatry Guest Lecturer on Research in Mental Health, Cedar Rapids, IA

2014 The Daily Iowa Television Interview on Neuroprotection, Iowa City, IA (May 5, 2014)

2014 Iowa Public Radio, River to River Interview on Traumatic Brain Injury, Iowa City, IA (September 12, 2014)

2014 KCRG ABC Iowa City Television News Interview on Neuroprotection, Iowa City, IA (September 20, 2014)

2014 KWWL NMC Iowa City News Interview on Neurodegenerative Disease, Iowa City, IA (October 15, 2014)
2014 University of Chicago, DNA Day Seminar, Chicago, IL
2015 National Alliance for the Mentally Ill (NAMI), Des Moines, IA (April 25, 2015)
2016 UICCOM Mini-Medical School, Tampa, FL
2016 UICCOM Neuroscience Research Day, Iowa City, IA
2017 University of Iowa Board of Regents, Des Moines, IA (February 22, 2017)
2018 Inaugural Morley-Mather Endowed Chair in Neuropsychiatry Induction Ceremony, Cleveland, OH (April 26, 2018)
2018 Cleveland Brain Health Initiative, "Neuroprotective Opportunities in Brain Health," Cleveland, OH (August 30, 2018)
2018 UHCMC Neurological Institute Leadership Council, Cleveland, OH (September 4, 2018)
2018 CWRU Medical Student Career Day, Cleveland, OH (February 28, 2018)
2019 UHCMC, "Brain Health and Memory at UH Today and Tomorrow," Cleveland, OH (October 30, 2019)
2019 CWRU Alzheimer's Panel in Naples, FL (January 24, 2019)
2019 Nexus & Morgan Stanley, "The Future of Neuroprotective Medicine," New York City, NY (November 21, 2019)
2020 United States House of Representatives, "Promoting Brain Health to Treat Neurodegenerative Diseases and Mental Health Crises Panel," (co-organizer), Washington DC (May 29, 2020)
2020 UHCMC Outreach, "Brain Health & Memory: The Promise of New Therapeutics," Naples, FL (February 17, 2020)
2020 UHCMC Outreach, "Brain Health & Memory: The Promise of New Therapeutics," Palm Beach, FL (February 19, 2020)
2020 National Council of Jewish Women of Cleveland, "How Stress and Isolation Affect Brain Health," Cleveland, OH (May 13, 2020)
2020 Cleveland Jewish News Interview, "Protecting the Brain from Dementia," Cleveland, OH (June 4, 2020)
2020 CWRU Agre Society Lecture, "Life in Academic Medicine," Cleveland, OH (December 2, 2020)
2021 Alzheimer's Drug Discovery Foundation, "Funding Opportunities in Neurodegenerative Diseases Panel," Jersey City, NJ (February 17, 2022)
2021 Brain Explained – The Podcast by Abdullah Iqbal, "Tau Acetylation in Traumatic Brain

2021 UHCMC, Friends of the UHMC, "Recent Advances in Discovery and Development of Future Neuroprotective Therapies, Gates Mills, OH (June 29, 2021)
2021 Morgan Stanley, "Accelerating Breakthrough Discoveries in Alzheimer's Disease," New York City, NY (October 26, 2021)
2021 Regional Leadership Advisory Council, Harrington / UHCMC, "Alzheimer's Conversations to Cures," Beechmont Country Club, Beachwood, OH (November 17, 2021)
2022 Alzheimer's Association, Cleveland Area Chapter, "Current Directions in Neuroprotection Research," Cleveland, OH (March 15, 2022)
2022 Alzheimer's Association, Great East Ohio Chapter, "Current Directions in Neuroprotection Research," Cleveland, OH (March 17, 2022)
2022 Think Forum – F. Joseph Callahan Lecture Series, Moderator, Ann Lembke, MD, "Pain, Pleasure, and the Addictive Chase for Dopamine," Cleveland, OH (April 18, 2022)
2022 Harrington Discovery Institute 10th Annual Meeting, "The Harrington Impact on

Alzheimer's Disease, Novel Pathways, and Therapies," Cleveland, OH (May 25, 2022)

2022 Alzheimer's Association, Cleveland Area Chapter, Silent Auction for Tour of Neuroprotection Laboratory, Cleveland, OH (July 26, 2022)

2022 Inaugural Rebecca E. Barchas, M.D., Professor in Translational Psychiatry Endowment Ceremony, CWRU, Cleveland, OH (July 7, 2022)

2022 Career Café Series, SEO/YES Program, "Becoming an MD/PhD," CWRU, Cleveland, OH (July 21, 2022)

2022 Student Enrichment Opportunity Program Annual Showcase Poster Session, "The importance of involving young students in scientific research," CWRU, Cleveland, OH (July 28, 2022)

2022 CWRU MSTP Program, "Life as an MD/PhD," Cleveland, OH (August 5, 2022)

2022 Spectrum News, Ohio. (August 11, 2022)

2022 Case Neuroscience Society, "A career in neuropsychiatry," CWRU, Cleveland, OH (October 20, 2022)

2022 Earlham College Epic Expo Day – "Intersections of Psychiatry, Neuroscience, and Research." (November 10, 2022)

2022 Meet The Professor Series, "A career in neuroprotection," Department of Medicine T32 Training Program, Baylor College of Medicine, Houston, TX (December 1, 2022)

2023 CWRU School of Medicine Psychiatry M1/M2 Specialty Panel Night (January 23, 2023)

2023 Greater East Ohio Area Alzheimer's Association Lab Tour for Alzheimer's Disease Research (March 7, 2023)

2023 Scientific Enrichment and Opportunity (SEO) & Youth Engaged in Science (YES) Program Lunch and Learn Seminar, CWRU, Cleveland, OH (July 18, 2023)

2023 Greater East Ohio Area Alzheimer's Association Lab Tour for Alzheimer's Disease Research (September 20, 2023)

2023 Junior Faculty Development Panel, IRCND Meeting, Tuscon, AZ (October 23, 2023)

2024 Alzheimer's Association, Greater East Ohio Chapter, "Recent Advances in Alzheimer's Disease Research and Therapy," Akron Rubber Ducks Stadium, Akron, OH (January 23, 2024)

2024 Alzheimer's Association, Cleveland Area Chapter, "Recent Advances in Alzheimer's Disease Research and Therapy," Stillwater Place, Cleveland Zoo, Cleveland, OH (January 24, 2024)

2024 Alzheimer's Association Donor Lab Tour (April 16, 2024)

2024 Council to Advance Human Health, Chagrin Valley Hunt Club, "New Breakthroughs in Neurodegenerative Diseases and Disorders" (April 23, 2024)

2024 Greater East Ohio Area Alzheimer's Association Lab Tour for Alzheimer's Disease Research (June 11, 2024)

2024 Greater East Ohio Area Alzheimer's Association Lab Tour for Alzheimer's Disease Research (July 11, 2024)

2024 University Hospitals Neurological Institute, "Basic Research in Neurodegenerative Disease," The Leadership Councils of University Hospitals, Home of Larry Gogolick (October 10, 2024)

2024 Case Western Reserve University Chapter of Synapse, Panel on Traumatic Brain Injury, "Advances in treatment of Traumatic Brain Injury," Cleveland, OH (November 18, 2024)

2025 NEOMED Dual Degree Society, "Pathways to MD / PhD Training and Career," Cleveland, OH (January 17, 2025)

2025 Council to Advance Human Health, "Prevention and Reversal of Dementia," Frenchman's Creek Beach and Country Club, West Palm Beach, FL (January 30, 2025)

2025 Monday Morning Minion, "Prevention and Reversal of Dementia," Cleveland, OH

(October 27,2025)

Teaching:

2006-2012 Mentoring Medical Students and Psychiatry Residents in Parkland Psychiatry Emergency Center, Dallas, TX
2006-2012 Co-Led Psychiatry Medical Student and Resident Academic Teaching Rounds, UTSWMC, Dallas, TX
2006-2012 Co-Led Case Studies in Ethics, Graduate Neuroscience Program, UTSWMC, Dallas, TX
2006-2012 PGY3 UTSWMC Psychiatry Resident Neuroscience Lecturer
2008-2010 UTWMC MSTP lecturer, Dallas, TX
2008-2012 Co-Led Neurobiology of Mental Illness, Psychiatry / Neuroscience, UTSWMC Dallas, TX
2009-2012 Led UTSWMC Neuroscience Graduate Student Works in Progress Seminar, Dallas, TX
2010-2012 Led UTSWMC Psychiatry Residency Research Track Lecture Series
2010-2012 Co-Led Integrative Biology Journal Club, UTSWMC, Dallas, TX
2010-2012 Mentor in Psychiatry Research Organization (PRO), UTSWMC, Dallas, TX
2012-2013 Mentorship of Psychiatry Residents in Emergency Psychiatry, UICCOM, Iowa City, IA
2012-2014 Taught “Assessment of Risk for Suicide and Violence” in R1/R2 Psychiatry Residency Curriculum, UICCOM, Iowa City, IA
2012-2014 Co-Led MSTP Grand Rounds Committee, UICCOM, Iowa City, IA
2013-2018 Mentorship and Teaching of UICCOM Psychiatry Medical Students in Inpatient Psychiatry Unit, Iowa City VA Health Care System, Iowa City, IA
2013-2018 Mentorship and Teaching of UICCOM Psychiatry Residents in Inpatient Psychiatry Unit, Iowa City VA Health Care System, Iowa City, IA

2014 Lecturer in Biochemistry Course for Dental and Pharmacy Students, UICCOM, Iowa City, IA
2014 Psychiatry Resident (Dr. Abraham Assad) Supervisor for Elective Clinical Rotation, “Potential Utility of Psychedelics in Mental Health Care”
2014-2016 Instructor and Faculty Facilitator for Topics in Molecular and Cellular Biology for Molecular and Cellular Biology Graduate Program, UICCOM, Iowa City, IA
2014-2016 Instructor and Faculty Facilitator for Biosciences Critical Thinking and Communication for Molecular and Cellular Biology Graduate Program, UICCOM, Iowa City, IA
2014-2018 Instructor and Faculty Facilitator for Psychiatry Residency Journal Club, Iowa City, IA
2014-2018 Clinical Skills Review and Certification for Psychiatry Residents, UICCOM, Iowa City, IA
2018-2019 ICTS Critical Thinking in Research and Collaboration Lecturer, UICCOM, Iowa City, IA
2018-present NEUR 601, CWRU, Cleveland, OH
2018-present NEUR 701, CWRU, Cleveland, OH
2020-present PATH 601, CWRU, Cleveland, OH
2021-present PATH 701, CWRU, Cleveland, OH
2018-present Mentor for Department of Psychiatry Residency Research Track
2021 Kaplan University Partners Neuroscience Course, Focus on Alzheimer’s

Disease, CWRU, Cleveland, OH

2022 Summer Undergraduate Research Experience for Underrepresented Groups in Medicine and Science Curriculum Leader (CWRU, Stanford University, Boston University, Medical College of Wisconsin, Vanderbilt University, Northwestern University)

June 9, 2022: "Directing a Research Institute While Also Running Your Own Lab"
Lisa M. Monteggia, PhD
Professor, Department of Pharmacology, Psychiatry, & Psychology
Barlow Family Director of the Vanderbilt Brain Institute
Vanderbilt University

June 10, 2022: "Women in Neuroscience"
Bindu Paul, PhD
Assistant Professor of Pharmacology
Johns Hopkins University

Hannah Stevens, MD, PhD
Associate Professor of Psychiatry
Ida P. Haller Chair, Psychiatry
Division Director, Child Psychiatry
University of Iowa Carver College of Medicine

Anjali M. Rajadhyaksha, PhD
Professor of Neuroscience
Brain and Mind Research Institute
Associate Dean Program Development
Weill Cornell Medical College

July 12, 2022: "Science Careers in Biotech"
Jee Hae Kim, PhD
Biomedical Research Scientist
Department of Therapeutic Proteins
Regeneron Pharmaceuticals

July 22, 2022: "Careers in Medical Science Writing"
Nicole Stricker, PhD
Science Writer
Idaho National Laboratory

July 27, 2022: "Commercialization of Scientific Discovery"
Dhanesh Shah, MBA
Senior Portfolios Manager
University Hospitals Cleveland Medical Center Ventures

Ryan Allison, MS
Portfolio Manager
University Hospitals Cleveland Medical Center Ventures

July 29, 2022: "Overcoming Stigma in the Community Around Dementia"

Martha Sajatovic, MD
Professor, Department of Psychiatry
Director of the Geropsychiatry Program
Case Western Reserve University

2022 "Life as a Physician Scientist" – CWRU MSTP Curriculum, August 3, 2022.
2023 IBMS 500 – On Being a Professional Scientist Series – "Safe Research Environment" CWRU BSTP Curriculum, April 21, 2023

2023 Summer Undergraduate Research Experience for Underrepresented Groups in Medicine and Science Curriculum Leader (CWRU, Stanford University, Boston University, Medical College of Wisconsin, Vanderbilt University, Northwestern University)

June 14, 2023: "Alternative Science Careers: Medical Science Writing"
Nicole Stricker, PhD
Science Writer
Idaho National Laboratory

July 12, 2023: "Science Careers in Biotech"
Jee Hae Kim, PhD
Biomedical Research Scientist
Department of Therapeutic Proteins
Regeneron Pharmaceuticals

2023 "Life as a Physician Scientist" – CWRU MSTP Curriculum, August 1, 2023.
2023 John S. Diekhoff Mentoring and Teaching Workshop – CWRU, October 10-11, 2023

2024 Summer Undergraduate Research Experience for Underrepresented Groups in Medicine and Science Curriculum Leader (CWRU, Stanford University, Boston University, Medical College of Wisconsin, Vanderbilt University, Northwestern University)

July 17, 2024: "Science Careers in Biotech"
Jee Hae Kim, PhD
Biomedical Research Scientist
Department of Therapeutic Proteins
Regeneron Pharmaceuticals

July 24, 2024: "Careers in Science Writing"
Nicole Stricker, PhD
Science Writer
Idaho National Laboratory

2024 "Life as a Physician Scientist" – CWRU MSTP Curriculum, July 22, 2024.
2025 Panel Presenter for Faculty Toolkit #9: Mentoring of Trainees & Junior Faculty / Making the Most of Mentoring (Case Western Reserve University, April 15, 2025)
2025 UH Health Services Research Center 2025 Summer Student Program, "Career as a Physician Scientist" (July 16, 2025)

Postgraduate Formal Training in Mentoring:

Completed 8 hours of National Research Mentoring Network (NRMN) Certified Mentor Training (see Pfund et al., 2006, The merits of training mentors. *Science* 311, 473-474. https://nrmnet.net/ and www.researchmentortraining.org)

Completed "Raising a Resilient Scientist Series," Office of Intramural Training & Education, National Institutes of Health. (2022-2023).

Session 1: Communication Skills to Build Trainee Resilience
Session 2: Promoting Trainee Resilience
Session 3: Building a Welcoming and Inclusive Research Group
Session 4: Difficult Conversations, Conflict, and Feedback
Session 5: The Mental Health and Well Being of Your Trainees

Mentoring Mentor Training Curriculum established by the Center for the Improvement in Mentored Experiences in Research CIMER (2022-2023).

NINDS Mentor-Mentee Workshop hosted by the Office of Programs to Enhance the Neuroscience Workforce (OPEN) and the Office of Training and Workforce Development (OTWD) (2024)

PhD Thesis Students Supervised / Graduated:

Hector De Jesús-Cortés: Neuroscience Graduate Program, UTSWMC
Thesis: "Calcium and NAD dynamics in Neurodegeneration"
Recipient of National Science Foundation Fellowship, "Calcium and NAD in neurodegeneration."
Matriculated: 2011
Degree Awarded: 2015
Next Step: Postdoctoral Fellow, Mark Bear Laboratory
Picower Institute for Learning and Memory
Department of Brain and Cognitive Sciences
Massachusetts Institute of Technology
Sagrado Fellow at Universidad del Sagrado Corazon

Terry Yin: Interdisciplinary Studies (Molecular Psychiatry), UICCOM
Thesis: "Traumatic Brain Injury"
Matriculated: 2010
Degree Awarded: 2015
Next Step: Postdoctoral Fellow, Julien Sebag Laboratory
Department of Molecular Physiology and Biophysics, UICCOM

Jaymie Voorhees: Human Toxicology Program, UICCOM
Thesis: "Cognitive Impairment and Neuronal Damage in Alzheimer's Disease Are Malleable: Occupational Chlorpyrifos Exposure Exacerbates Phenotypes, While the Neuroprotective Compound P7C3 Ameliorates Effects in a Transgenic Model of Alzheimer's Disease."

Recipient of UICCOM Post-Comp Research Award
Matriculated: 2013
Degree Awarded: 2017
Next Step: Postdoctoral Fellow, Thomas Burris Laboratory
Center for Clinical Pharmacology
University of Health Sciences & Pharmacy in St. Louis
Washington University in St. Louis School of Medicine

Rachel Genova: Department of Molecular Physiology and Biophysics, UICCOM
Thesis: “The Role of Neprilysin in Ocular Surface Homeostasis and Corneal Wound Healing”
Recipient of NIH F30 Training Award, “The role of neprilysin in ocular surface homeostasis and corneal wound healing.”
Matriculated: 2014
Degree Awarded: 2020
Next Step: Medical School at UICCOM
Internal Medicine Resident, University of Michigan

Maria Noterman: Department of Neuroscience, UICCOM
Thesis: “Neuronal Mitochondria and Calcium Dynamics in Brain Health”
Recipient of National Science Foundation Fellowship
Recipient of University of Iowa Presidential Fellowship
Recipient of University of Iowa Department of Neuroscience Young Investigator Award
Matriculated: 2015
Degree Awarded: 2020
Next Step: Postdoctoral Fellow, Mark Nelson Laboratory, Larner College of Medicine, Department of Pharmacology, University of Vermont

Rachel Schroeder: Department of Neuroscience, UICCOM
Thesis: “Impacts of Chronic Prenatal Stress on Maternal and Offspring Outcomes, and the Mitigating Effects of P7C3 Compounds”
Matriculated: 2017
Degree Awarded: 2021
Next Step: Postdoctoral Fellow, Eric Taylor Laboratory, Department of Biochemistry, UICCOM (2021-2024)
Assistant Professor, Weber State University, Utah (2024)

Preethy Sridharan: Department of Neuroscience, CWRU, MSTP
Recipient of CWRU Neurodegeneration T32 Fellowship
Recipient of NIH F30 Training Award, “The role of mitochondrial fission in the leading environmental cause of Alzheimer's disease.”
Outstanding Poster Award, International Research Conference on Neurodegenerative Disease, 2022
Charles L. Hoppel Trainee Award for Excellence in Mitochondrial Research, Center for Mitochondrial Diseases, CWRU, 2023
Matriculated: 2018
Degree Awarded: 2023
Martin Wahl Memorial Fund Award to Graduating MSTP Student 2025

Thesis: “Acute Inhibition of Aberrant Mitochondrial Fission After Traumatic Brain Injury Confers Lasting Neuroprotection into Late Adulthood”
Next Step: Complete Medical School at CWRU, then Surgery Residency at The Ohio State University

Yeo Jung Koh: Department of Pathology, CWRU
Outstanding Oral Presentation Award, International Research Conference on Neurodegenerative Disease, (Atlanta, Georgia) 2024
Recipient of NIH F99/K00 Transition to Aging Research for Predoctoral Students Award
Matriculated: 2020
Degree Awarded: 2025
Thesis: “The Blood-Brain Barrier: A Central Vulnerability in Neurodegenerative Disease”
Next Step: Postdoctoral Fellow, Li Huei-Tsai Laboratory, Picower Institute for Learning and Memory, Massachusetts Institute of Technology

Sarah Barker: Department of Pathology, CWRU, MSTP
Recipient of CWRU Data Science in Alzheimer’s Disease T32 Fellowship
Outstanding Oral Presentation Award, International Research Conference on Neurodegenerative Disease, (Omaha, NE) 2022
Outstanding Oral Presentation Award, International Research Conference on Neurodegenerative Disease, (Tucson, Arizona) 2023
MSTP Council President (2023-2024)
University Hospitals / Case Western Reserve University Neurological Institute Research Award (2024)
Biomedical Graduate Student Organization Student of the Semester, Case Western Reserve University (2024)
Matriculated: 2021
Graduated: 2025
Thesis” “Traumatic Brain Injury-Induced Acceleration of Aging-Related Neurodegenerative Disease”
Next Step: Complete Medical School at CWRU

Master’s Degree Students Supervised / Graduated:

Natalya Tesdahl: Department of Molecular Physiology and Biophysics, UICCOM
Thesis: “Molecular Basis of Autism-Like Behavior in SAPAP3-Deficient Mice”
Matriculated: 2014
Degree Awarded: 2017
Next Step: Medical School at UICCOM
Internal Medicine Resident, University of Nebraska, College of Medicine, Department of Internal Medicine

Mallory Long: Department of Neuroscience, CWRU
Thesis: “Calcium Dynamics in the Blood-Brain Barrier”
Matriculated: 2019
Degree Awarded: 2021
Next Step: Law School

Emmanuel Tutu: CWRU Science and Technology Entrepreneurial Biotechnology Program
"Development of Acetylated Tau as a Biomarker of Traumatic Brain Injury,"
(2022-2024)

Medical Students Supervised:

Shauna Goldman (2010-2014) – Developing New Treatments for Rett Syndrome
Tracy Snell (2009-2013) – Neurodegeneration and Brain Health
Nichole Ducich: Putative Protective Efficacy of Ketamine in Post-Traumatic Stress Disorder
Matriculated: 2020-2023

Current PhD Thesis Students Supervised:

Emiko Miller: Department of Neuroscience, CWRU
Recipient of CWRU Data Science in Alzheimer's Disease T32 Fellowship
Outstanding Oral Presentation Award, International Research Conference on Neurodegenerative Disease, (Omaha, Nebraska) 2022
Matriculated: 2020
Recipient of NIH F31 Training Award. "The role of primary cilia deterioration in Alzheimer's disease."
Neuroscience Graduate Student Organization President, Case Western Reserve University (2024-2025)

Sofia Corella: Department of Pathology, CWRU, MSTP
Matriculated: 2021
Recipient of CWRU Neurodegeneration T32 Fellowship
Medical / Graduate Student Research Day 2023 Outstanding Poster Award
Outstanding Poster Presentation Award, International Research Conference on Neurodegenerative Disease, (Tucson, Arizona) 2023
Keystone Symposia Future of Science Scholarship Award 2023
Recipient of NIH F31 Training Award, "Hematopoietic stem cell dysfunction in traumatic brain injury and Alzheimer's disease."
MSTP Council President (2024-2025)

Zea Bud: Nursing PhD Program, Focus in Neurodegeneration, CWRU
Matriculated: 2021

Sonny Caradonna: Department of Neurosciences, CWRU, MSTP
Matriculated: 2023
MSTP Council Secretary (2024-2025)

Kami Noel: Department of Neurosciences, CWRU, BSTP
Matriculated: 2025

Postdoctoral Fellows:

Pin Xu, PhD (2009-2012):
Next Step: Research Scientist in Joe Takahashi Lab, UTSWMC

Edwin Vázquez-Rosa, PhD (2014-2021):
2021 Outstanding Young Investigator, Young Investigator TBI Summer Conference, Washington DC
Next Step: Senior Research Scientist in Pieper Laboratory

Min Kyoo Shin, PhD (2015-2022):
2021 Outstanding Young Investigator, Young Investigator TBI Summer Conference, Washington DC
Next Step: Senior Research Scientist in Pieper Laboratory, and then Assistant Professor, College of Pharmacy, Seoul National University, Korea

Anya Kondratova (2019-2021): Next Step: Research Scientist at CCF

Matasha Dhar (2019-2022): Next Step: U.S. Patent Examiner

Kalyani Chaubey (2019-2023)
Outstanding Oral Presentation Award, International Research Conference on Neurodegenerative Disease, 2022
Society for Neuroscience Trainee Professional Development Award (TDPA), 2023
Outstanding Poster Presentation Award, International Research Conference on Neurodegenerative Disease, (Tucson, Arizona) 2023
Next Step: Research Scientist, CWRU (2023)

Meredith Whitney, MD, PhD: "Effects of Traumatic Brain Injury on both Mother and Baby," (2019-2023)
Selected for American Academy of Child and Adolescent Psychiatry (AACAP) Research Colloquium for Early Career Investigators (2022)
Ohio Psychiatric Physicians Foundation Research Award for Best in the Resident-Fellow Member Category (2023)

Hui Lui, MD, PhD (2024 – present)

Vivek Saraway, PhD (2025 – present)

Thesis Committee Member:
Charles Taylor (mentor: Matthew Goldberg, Department of Psychiatry, UTSWMC)
Katie Seamens (mentor: Mathew Goldberg, Department of Psychiatry, UTSWMC)
Rachel Arey (mentor: Colleen McClung, Department of Psychiatry, UTSWMC)
Angela Walker (mentor: Jeff Zigman, Department of Internal Medicine, UTSWMC)
Sarah Hendrix (mentor: Carol Tamminga, Department of Psychiatry, UTSWMC)
Bianca Mason (mentor: Andrew Russo, Department of Neurology, UICCOM)
Shiyi Wang (mentor: Amy Lee, Department of Molecular Physiology and Biophysics, UICCOM)
Sabah Enayah (mentor: Laurence Fuortes, Department of Occupational and Environmentla Health, UICCOM)
Carly Lewis (mentors: Mike Anderson and John Fingert, Department of Molecular Physiology and Biophysics,UICCOM)

Dylan Todd (mentor: Dan Bonthius, Department of Molecular and Cellular Biology, UICCOM)
Muhammad Taifur Rahman (mentor: Steven Green, Department of Biology, UICCOM)
Sharon Idiga (mentor: Matthew Pothoff, Department of Neuroscience and Pharmacology, UICCOM)
Stacey Peek (mentor: Josh Weiner, Department of Biology, UICCOM)
Ryan Kelley (mentor: Kumar Narayanan, Department of Neurology, UICCOM)
Di Hu (mentor: Xin Qi, Department of Physiology and Biophysics, CWRU), (2018-2022)
Meagan Kitt (mentor: Even Deneris, Department of Neuroscience, CWRU), (2019-2022)
Katherine Horan (mentor: Xin Qi, Department of Physiology and Biophysics, CWRU), (2019-2022)
David Sweet (mentor: Mukesh Jain, Department of Medicine, CWRU), (2018-2022)
Jingyi Lu (mentor: Ashleigh Schaffer, Department of Genetics and Genome Sciences, CWRU) (2019-2024)
Joel Sax (mentor: Drew Adams, Department of Genetics and Genome Sciences, CWRU), (2019-2023)
Curran Landry (mentor: Helen Miranda, Department of Genetics and Genome Sciences, CWRU), (2019-2024)
Lucie Ahn (mentor: Ashleigh Schaffer, Department of Genetics and Genome Sciences, CWRU) (2018-2024)
Jessica Dudman (mentor: Xin Qi, Department of Physiology and Biophysics, CWRU) (2019-present)
Aya Aqeel (mentor: Sunnie Chung, Department of Electrical Engineering and Computer Science, Cleveland State University) (2019 – present)
Bijoya Basyu (mentor: Atul Chopra, Department of Genetics and Genome Sciences, CWRU) (2019 – present)
Erin Cohn (mentor: Paul Tesar, Department of Genetics and Genome Sciences, CWRU) (2019 – 2024)
Hanna Jeon (mentor: David Kang, Department of Pathology, CWRU) (2020 – present)
Brendan Boylan (mentor: Connie Bergmann, Department of Molecular Medicine, CCF, CWRU) (2022 – present)
Ying Xiong (mentor: Paul Tesar, Department of Genetics and Genome Sciences, CWRU) (2022 – present)
Dan Jindal (mentor: Heather Brohier, Department of Neuroscience, CWRU) (2022 – 2023)
Yining (Elaine) Liu (mentor Dr. Jonathan Haines, Systems Biology and Bioinformatics) (2023 – present)
Jeehyun Karen You (mentor: Theresa Pizarro, Department of Pathology) (2023 – present)
Hannah Zamore (mentor: Allison Kraus, Department of Pathology, CWRU) (2023 – present)
Zunren Liu (mentor: Xin Qi, Department of Physiology and Biophysics, CWRU) (2023-present)
Andy Chen (mentor: Ashleigh Schaeffer, Department of Genetics and Genome Sciences, CWRU) (2034-present)
Iris Peng (mentor: Dr. Allison Kraus, Department of Pathology) (2024 – present)
Sarah Cooke (mentor: Xin Qi, Department of Physiology and Biophysics, CWRU) (2024 – present)
Laura Chen (mentor, Agata Exner, Department of Biomedical Engineering, CWRU) (2024 – present)
Kristen Schaefer (mentor, Thomas Kelley, Department of Genetics and Genome Sciences, CWRU), (2024 – present)

Mentor for Rotating Graduate Students:

Ginger Becker – Department of Neuroscience, UTSWMC, 2009
Katelyn Finch – Department of Neuroscience, UTSWMC, 2010
Emanuela Capota – Department of Neuroscience, UTSWMC, 2011
Raneiro Peru – Department of Neuroscience, UTSWMC, 2011
Hector De Jesús-Cortés – Department of Neuroscience, UTSWMC, 2011
Yasemin Onder – Department of Neuroscience, UTSWMC, 2012
Terry Yin – Department of Interdisciplinary Studies (Molecular Psychiatry), UICCOM, 2013
Rachel Genova – MSTP, Department of Molecular Physiology and Biophysics, UICCOM, 2013
Natalya Tesdahl – MSTP, Department of Molecular Physiology and Biophysics, UICCOM, 2013
Jaymie Voorhees – Department of Human Toxicology, UICCOM, 2013
Maria Noterman – Department of Neuroscience, UICCOM, 2014
Barbara Okeke – Department of Neuroscience, UICCOM, 2015
Rachel Schroeder – Department of Neuroscience, UICCOM, 2016
Benjamin Elser – Department of Human Toxicology, UICCOM, 2017
Adriana Rivera – Department of Neuroscience, UICCOM, 2017
Preethy Sridharan – MSTP, Department of Neurosciences, CWRU, 2018
Mallory Long – Department of Neurosciences, CWRU, 2018
Sarah Barker – MSTP. Department of Pathology, CWRU, 2019
Connor Barker – Department of Medicine, CWRU, 2019
Emiko Miller – Department of Neurosciences, CWRU, 2020
Yeojung Koh – Department of Pathology, CWRU, 2020
Sofia Corella – MSTP, Department of Pathology, CWRU, 2020
Kristi Lin – Department of Systems Biology and Bioinformatics, CWRU, 2020
Sonny Caradona – MSTP, Department of Neurosciences, CWRU, 2022
Rania Ziar – BSTP, Department of Neurosciences, CWRU, 2023
Whitney Ward – BSTP, Department of Neurosciences, CWRU, 2024
McKenzie Yun – BSTP, Department of Neuroscience, CWRU, 2024
Kami Noel – BSTP, Department of Neuroscience, CWRU, 2024

Mentor for High School Students in the Lab:

Alex Wang (2009)
Devin McDaniel (2009)
Sarah Ally (2009-2012)
Saira Hussein (2009-2012)
Indu Bedi (2011 – 2012)
Cassie Wassink (2013)
Vanessa Mark (2013-2014)
Next step: Brandeis University undergraduate
Veronica Mark (2013-2014)
Next Step: Scripps College, then George Washington School of Medicine and Health Sciences
Danyel Crosby (2018-2019)
Awarded Full Scholarship (tuition and room & board) 4 year CWRU undergraduate scholarship and automatic 4 year CWRU School of Medicine admission and Full Scholarship (tuition & room & board) – awarded to one Cleveland area high school senior per year.
Dunya Shamma (2019)
Gabriel Moss (2019)

Tony Chen (2019)
Aristotle Teli Peter Apostolakis (2019-2020)
Next step: enrolled at Brown University for undergraduate
Sophia Rose (2020-2022)
2021 – CWRU SEO YES Scholar
Next step: enrolled at Carnegie Mellon University for undergraduate
Hua Fang (2020-2023)
Awarded 2023 Society for Science Top 300 Scholar,
82nd Regeneron Science Talent Search (The nation's oldest and most prestigious science and mathematics competition for high school seniors.)
One of only two 2023 recipients from Ohio.
Next step: enrolled at Massachusetts Institute of Technology for undergraduate
Kurtay Ozoner (2021-2022)
Next step: enrolled at Cornell University for undergraduate
Kate Lindley (2021-2022)
2021 – CWRU SEO YES Scholar
2022 – CWRU SEO YES Scholar
Next step: enrolled at Northeastern University (Boston) for undergraduate
Niklas Rietsch (2022 – present; Anderson Scholars Program)
2024 – First place in regional Science Fair
2024 – Top 6 in Ohio State Science Fair
2024 – Regeneron International Science and Engineering Fair (May 11-17, Los Angeles, CA), "The role of neuronal primary cilia in Alzheimer's disease"
Next step: enrolled at Boston University for undergraduate
Niamh O'Donovan (2023-2024; Ardsley High School, Ardsley, NY, in partnership with the "Science Research in the High School" program at Ardsley High School and SUNY Albany).
2024 – Innovations in Biological Sciences Research Award, Westchester Science and Engineering Fair, March 21, 2024, "Investigating chronic inflammation in the periphery and lymphoid compartments of traumatic brain injury."
2024 – Case Western Reserve University Rebecca E. Barchas, MD, Summer Student Scholar in Translational Neuroscience
Next Step: enrolled at University of Chicago for undergraduate
Adrian Cintrón-Pérez (2023; Beachwood High School, Cleveland, OH)
(2024 SEO YES Scholar, and 2025 SEO YES Scholar)
Samyuktha Iyer (2023 – present; Laurel High School, Cleveland, OH)
Cleveland Clinic Prize for Neuroscience at Northeast Ohio Science Fair
Grand Prize in Biological Sciences at Northeast Ohio Science Fair
4th Place Grand Prize in the Biomedical and Health Sciences, Regeneron International Science and Engineering Fair, Dallas, TX
Nex Step: enrolled at Princeton University (New Jersey) for undergraduate
Julia Duong (2024 – present; Laurel High School, Cleveland, OH)
2025 – 2nd place in Northeast Ohio Science and Engineering Fair (NEOSEF)
"Cereblon: a novel mediator of tauopathy in traumatic brain injury"
Henry Fritz (2024 SEO YES Scholar)
Luke Ashiku (2025 Rebecca E. Barchas, MD, DLFAPA, Summer Student Scholar in Translational Neuroscience)

Mentor for College Students in the Lab:

Bryce Foster (UT Dallas, 2006)
Richard Price (UT Dallas, 2006)
Hannah Shen (Harvard University, 2006-2009)
Jeremiah Britt (UT Dallas, 2009)
Alyssa McMenamy-Becker (UT Dallas, 2009)
Next step: University of Texas Medical Branch, University of Texas, School of Medicine
Shauna Goldman (University of Pennsylvania, 2009 – 2010)
Nest step: University of Texas Southwestern Medical Center School of Medicine
Residency in Dermatology, UTSWMC
Private Practice Dermatologist, El Paso, TX
Jessica Thomas (UT Dallas, 2009)
Next step: University of Iowa Carver College of Medicine, Department of Neuroscience Graduate School
Vivian Ho (Stanford University, 2010-2011)
Next Step: Medical School at Columbia University Vagelos College of Physicians and Surgeons, followed by Vascular Surgery Residency at Stanford Health Care.
Shivali Chag (UT Dallas, 2010)
Jo Tang (UT Dallas, 2009-2010)
Rudy Hikel (UT Dallas, 2010)
Jieqi Wang (Harvard University, 2011-2013)
Next step: University of Kentucky School of Medicine
Residency in Radiology, Washington University in St. Louis
Current medical staff in Department of Radiology, Washington University in St. Louis
Manjari Subramanian (UT Dallas, 2011)
Cristina Co (UT Dallas, 2011)
Stephanie Tran (2011-2012)
Whitney Knobbe (2011-2012)
Rachel Hodges (The University of Iowa, 2012-2013)
Aaron Burket (UT Dallas, 2011-2013)
Next step: University of North Texas Health Sciences Center, Medical School
Residency in Neurosurgery, University of Arizona in Tuscon
Jordan Nicole Drawbridge (University of North Carolina, Chapel Hill, 2012-2014)
Next step: Texas Tech University School of Medicine
Residency in Pediatrics, Vanderbilt University
Fellowship in Critical Care, Department of Pediatrics, Northwestern University (Chicago)
Aaron Katzman (Cornell University 2013-2014)
Next step: Graduate School in Department of Neuroscience, Weill Cornell University
Cassie Wassink (The University of Iowa, 2014-2015)
Emily Steubing (The University of Iowa, 2013-2017)
Next Step: Master's Degree, University of Cambridge (London, UK), "Factors Influencing the Hiring of People with Disabilities: An Exploration of Supply-Side and Demand-Side Perspectives"
Anthony DeMarco (The University of Iowa, 2014-2015)
Matthew Remy (The University of Iowa, 2013-2017)
Lance Heady (The University of Iowa, 2014-2017)
Next step: Graduate School in Department of Neuroscience at UT Southwestern Medical Center
Lorenzo Lones (The University of Iowa, 2015-2017)

Next step: Graduate School in Department of Developmental Biology, Washington University School of Medicine in St. Louis

Abhinaya Gunasekar (The University of Iowa, 2015)

Derek Mark (University of California, Berkeley, 2015-2016)

Next Step:

Alexis Madden (The University of Iowa, 2016)

Ashley Madison (The University of Iowa, 2015-2016)

Claire Erickson (The University of Iowa, 2016)

Josie Emery (Truman State University, 2016-2017)

Elie El Rassi (American University of Beirut, 2016-2017)

Vicky Chuong (The University of Iowa, 2016-2017)

Next Step: Graduate Student in Neuroscience at The University of Texas Health Science Center

Danielle King (The University of Iowa, 2016-2018)

Alexa Kort (The University of Iowa, 2016-2018)

Eda Lu (University of Massachusetts Amherst, 2017-2018)

Olivia Baird (The University of Iowa, 2017)

Yuko Nakamura (Kindai University, Higashi-osaka, Japan, 2017)

Daniel Ryan (Duke University, 2018-2019)

Next step: NIH Cancer Research Training Award, Bethesda, MD

(MSTP Program, Northwestern University, 2024)

Emiko Miller (Marquette University, 2018-2019)

Next step: Neuroscience Graduate Program, CWRU

Zea Bud (Case Western Reserve University, 2018-2022)

Next step: Nursing Graduate Program, CWRU

Evangeline Bombakidis (Northwestern University, 2019-2022)

Next step: CWRU School of Medicine

Kathryn Devados (Case Western Reserve University, 2020-2022)

Aristotle Teli Peter Apostolakis (Brown University, 2021-2024)

Next Step: MD/PhD program at University of Toledo College of Medicine and Life Sciences, Toledo, OH

Ayush Vyas (Case Western Reserve University, 2021-2022)

Youngmin Yu (Case Western Reserve University, 2021-2022)

Next Step: Medical School at University of Toledo College of Medicine and Life Sciences, Toledo, OH

Kurtay Ozuner (Cornell University, 2022-2024)

Next Step: Research Technician Pieper CWRU Lab 2024-2025

Rose Abigail Leon (Earlham College, 2022-2023)

2022 – SURE AHA Program Scholar Awardee

Next step: Research Scientist in Albertson Stroke Laboratory, Washington University in St. Louis

Uapingena Kandjoze (Earlham College, 2022-2023)

2022 – SURE AHA Program Scholar Awardee

2024 Earlham College Anthony Maggard Neuroscience Award (for demonstrating excellence and passion in the field of Neuroscience)

Next step: University of Texas at Austin Graduate Program in Neuroscience, 2024

Adora Ezepue (The Ohio State University, 2022-2023)

2022 – CWRU SEO YES Scholar Awardee

2023 – CWRU SEO YES Scholar Awardee

2024 – CWRU SEO YES Scholar Awardee

Ryan Kornblitt (Case Western Reserve University, 2022-present)
CWRU SOURCE - STEM 2023 Summer Research Scholar Awardee
Jiwon Hyung (Case Western Reserve University, 2022-2023)
Next Step: Boston University Post-Baccalaureate Research Education Program, 2023)
Peter Bambakidis (St. Olaf Colllege, 2022-2024)
2024 - Case Western Reserve University Rebecca E. Barchas, MD, Summer Student Scholar in Translational Neuroscience
Next step: Medical Student at Case Western Reserve University
Anusha Bangalore (Case Western Reserve University, 2023 – present)
CWRU SOURCE-STEM 2024 Summer Research Scholar Awardee
CWRU Captstone Project in Neurosciences (2025)
CWRU Department of Neurosciences Honors (2025)
Tanishka Mhaskar (Case Western Reserve University, 2023)
CWRU Capstone in Neuroscience: "Examining Brain Specificity of Candidate Biomarkers after Traumatic Brain Injury"
Next Step: University of Minnesota Medical School
Sophia Rose (Carnegie Mellon University, 2023)
Kailey Takaoka (Tufts University, 2023)
Adam Lieberman (Northern Arizona University, 2023 – present)
Danny Cho (Case Western Reserve University, 2023 – present)
Phoebe Templin (Case Western Reserve University, 2023 - present)
CWRU Capstone Project "Role of Neuronal Primary Cilia in Alzheimer's Disease, 2025-2026)
Roccio Aguila Rodriguez (Case Western Reserve University, 2023 - present)
Shruti Kelkar (Case Western Reserve University, 2024 - present)
Cora Donoghue (Case Western Reserve University, 2024 - present)
Talie Proweller (University of Rochester, 2024 - present)
2024 – Case Western Reserve University Rebeccca E. Barchas, MD, Summer Student Scholar in Translational Neuroscience
Erina Harrision (The Ohio State University, 2024 – present)
2024 – Case Western Reserve University Rebeccca E. Barchas, MD, Summer Student Scholar in Translational Neuroscience
Ridhima Prasad (Case Western Reserve University, 2024 – present)
Vidya Indrakuma (Case Western Reserve University, 2024 – present)
Hailley Connett (Case Western Reserve University, 2024 – present)
Sophie Han (Case Western Reserve University, 2024-present)
Justin Pieper (Northeastern University, 2025 Rebecca E. Barchas, MD, DLFAPA, Summer Student Scholar in Translational Neuroscience)
Phoebe Rubin (University of California Santa Barbara, 2025 Rebecca E. Barchas, MD, DLFAPA, Summer Student Scholar in Translational Neuroscience)
Nico Moulthrop (The Ohio State University, 2025 Rebecca E. Barchas, MD, DLFAPA, Summer Student Scholar in Translational Neuroscience)

Mentor for Medical Students in the Lab:
Kiera Borthwick (2023 – 2024)

Mentor for Faculty:
Beth Newell, MD: Department of Pediatrics, UICCOM (2013-2019)
Jacob Michaelson, PhD: Department of Psychiatry, UICCOM (2014-2018)

Laura Dutca, PhD: Department of Ophthalmology and Visual Sciences, VA Career Development Award UICCOM (2015-2020)
Levi Sowers, PhD: Department of Neuroscience, VA Career Development Award, UICCOM (2014-2019)
Yancy Ferrer, PhD: Department of Neuroscience, Universidad Central Del Caribe, Research Center in Minority Institutions (2016-2020)
Keming Gao, MD: Department of Psychiatry, CWRU, (2018-2020)
Molly McVoy, MD: Department of Psychiatry, "Biomarkers of Depression in Child Psychiatry," CWRU (2018-2022)
Jagan Pillai, MD, PhD: Cleveland Clinic Lou Rovo Center for Brain Health, "Role of Tau Isoforms in Determining Clinical Alzheimer's Disease Variants," (2019-2022)
Ignazio Cali, PhD: Department of Pathology, "Characterization of the Molecular Features of Tau and AB in a Patient with CTE and AD," CWRU (2019-present)
Wenzhang Wang, PhD: Department of Pathology, "Mitochondria in Alzheimer's Disease," CWRU (2019-present)
Allison Kraus, PhD: Department of Pathology, "Tau in Neurodegeneration," CWRU (2020-2024)
Aaron Burberry, PhD: Department of Pathology, "New Therapies for Frontotemporal Dementia," CWRU (2021-present)
Marina Martinez-Vargas, PhD: Baylor College of Medicine, Department of Medicine, Cardiovascular Division, "Regulation of Vascular Permeability by Von Willebrand Factor Action on Endothelial Cells in Traumatic Brain Injury" (2021-present)
Alexa Woo, PhD: Department of Pathology, "Role of Tau in Neurodegeneration," CWRU, Chair of Tenure / Promotion Committee (2022-2024)
Tian Liu, PhD: Department of Pathology, "Mitochondria in Neurodegeneration," CWRU (2022-present)
Wasiu Balogun, PhD: Department of Pathology, "Inflammation-associated synapse loss gated by the neuronal kinase DLK," CWRU (2022-present)
Polyxeni Philippidou, PhD: Department of Neuroscience, CWRU, Tenure / Promotion Committee (2023 – 2024)
Justin A. Courson, PhD: Baylor College of Medicine, Center for Translational Research in Inflammatory Disease (CTRID), Michael E. DeBakey VA Medical Center, VA Career Development Award (2023 – present)
Nikhil Panicker, PhD: Department of Neurosciences, Cleveland Clinic Lerner College of Medicine, Cleveland Alzheimer's Disease Research Center (2024 – present)
Ben Clayton, PhD: Department of Genetics and Genome Sciences, Case Western Reserve University, (2024 – present)

MSTP Student Advisees

Bryan Webb (2022 – 22023; Pharmacology)
Avery Sears (2022 – 2023; Pharmacology)
Joel Sax (2022 – 2023; Genetics & Genome Sciences)
Michael McHenry (2022 – 2023; Epidemiology and Biostatistics)
David Sweet (2022 – 2023; Pathology / Molecular Biology)
Sarah Venus (2022 – 2025; Biochemistry)
Xinrui Zhang (2022 – present; Neurosciences)
Dan Jindal (2022 – present; Neurosciences)
Marc Ferrell (2022 – present; Systems Biology& Bioinformatics)

Raza Haider (2022 – present; Physiology & Biophysics)
Erin Cohn (2022 – present; Genetics & Genome Sciences)
Vanessa Salazar (2022 – present; Pathology / Immunology)
Brian Kim (2022 – present; Genetics & Genome Sciences)
Brendan Boylan (2022 – present; Pathology / Immunology)
Lucie Ahn (2022 – present; Genetics & Genome Sciences)
Jesse Zhan (2022 – present; Genetics & Genome Sciences)
Joseph Schindler (2022 – present; Biochemistry)
Benjamin Mittman (2022 – present; Neurosciences)
Thomas Lavin (2022 – present; Pathology)
Hannah Zamore (2022 – present; Neurosciences)
Hans Leier (2022 – present; Molecular Biology)
Claire Fritz (2022 – present; Pathology / Cancer)
Indrani Das (2022 – present; Pathology)
Alexander Foden (2022 – present; Neurosciences)
Andy Chen (2022 – present; Neurosciences)
Sophie Lee (2023 – present; undecided)
Patrick Zhuang (2023 – present; undecided)
Laura Chen (2023 – present; Biomedical Engineering)
Sophia Gavalas (2024 – present; undecided)
Bryce Mashimo (2024 – present; undecided)
Tommy Nguyen (2024 – present; undecided)

Service and Committees:

Ad-Hoc Reviewer: *ACTA Pharmaceutica Sinica B, Anatomia, ACS Chemical Neuroscience, Advanced Science. Alzheimer's Research & Therapy, American Journal of Industrial Medicine, BioEssays, Biological Psychiatry, Biomedicine and Pharmacotherapy, Bioorganic and Medicinal Chemistry, BMC Molecular Biology, Cell, Cellular and Molecular Life Sciences, Current Alzheimer Research, eLife, European Journal of Pharmacology, Embryologia, Histologia, Experimental Neurology, FEBS, Frontiers in Neuroscience, Genes Brain and Behavior, Heliyon, Hippocampus, Human Molecular Genetics, JCI Insight, Journal of Alzheimer's Disease, Journal of Cancer, Journal of Clinical Investigation, Journal of Neuroscience, Journal of Neurotrauma, Journal of Visualized Experiments, Molecular Neuropsychiatry, Molecular Psychiatry, Nature, Nature Communications, Nature Nanotechnology, Neuron Neuropsychopharmacology, Neurochemistry International, Neuroscience Letters, Neurotherapeutics, PLOS One, Proceedings of the National Academy of Sciences USA, Redox Biology, Science, Science Advances, Science Translational Medicine, Scientific Reports, Stem Cells, Translational Neurodegeneration, Toxicology and Applied Pharmacology, Translational Psychiatry*

NIH Workshop: Setting Priorities for Rett Syndrome Research (2011)
NIH Grant Reviews: NINDS Exploratory Clinical Trials (2011)
Recruitment Committee for Director of Parkland Hospital Psychiatry Emergency Department, UTSWMC (2011)
Internal Review Board, Clayton Foundation for Research (2011)
Internal Review Board, The Hartwell Foundation, UTSWMC (2011-2012)
Psychiatry Emergency Medicine Physician Task Force, UTSWMC (2011-2012)

Chair, Data and Safety Monitoring Board, “Reversing corticosteroid-induced memory impairment” (Dr. Sherwood Brown, UTSWMC, 2011-2013)
Chair, Data and Safety Monitoring Board, “A randomized, double-blind, placebo-controlled trial of pregnenolone for bipolar depression” (Dr. Sherwood Brown, UTSWMC, 2011-2013)
Recruitment Committee for Psychiatry Research Division Chief, UTSWMC (2011-2012)
MSTP Grand Rounds Committee, UICCOM (2012-2014)
Neuroscience Graduate Program Awards Committee, UICCOM (2012-2018)
Interview MTSP applicants, UICCOM (2012-2018)
Interview Department of Psychiatry residency training applicants, UICCOM (2012-2018)
Interview Department of Neurology residency training applicants, UICCOM (2012-2018)
Interview Department of Neuroscience Graduate Program applicants, UICCOM (2012-2018)
Interview DEO candidates for University of Iowa Department of Pharmaceutical Sciences and Experimental Therapeutics (2013)
Interview Department of Human Toxicology Graduate Program applicants, UICCOM (2012-2018)
Interview Department of Molecular and Cellular Biology Graduate Program applicants, UICCOM (2014-2018)
Internal Review Committee, UICCOM Environmental Health and Safety Research Center Pilot Grant Program (2013-2018)
Medical Student Research Council, UICCOM (2013-2018)
Medicine Research Committee, UICCOM (2013-2018)
Diversity Affairs Committee, UICCOM (2013-2018)
Admissions Committee, Department of Neuroscience, UICCOM (2013-2018)
Junior Faculty Mentoring Committee, Department of Pediatrics, UICCOM (2013-2018)
Neuroscience Institute Director Search Committee, UICCOM (2014-2016)
Host, UICCOM Distinguished Biomedical Scholars Lecture, Dr. Steven McKnight of UTSWMC Department of Biochemistry (September 18, 2014)
University of Michigan Environmental Health Sciences Core Center Pilot Grant Reviewer (2014-2016)
Free Radical Radiation Biology T32 Training Grant Internal Review Committee, UICCOM (2014-2018)
Faculty Representative, Animal Research Institutional Care and Use Committee, UICCOM (2014-2018)
Host, UICCOM Distinguished Biomedical Scholars Lecture, Dr. Solomon Snyder of Johns Hopkins University Department of Neuroscience (February 19, 2015)
Frontiers in Neuroscience, section Neurodegeneration, co-Editor (2015-2016)
Neuroscience Institute Art Committee, UICCOM (2015-2018)
Alumni Reunion Representative, Neuroscience Institute, UICCOM (2015-2018)
Faculty Representative, Psychiatry Department, UICCOM Core Facilities Committee (2015-2018)
Mentoring Lunch with a Principal Investigator, Pappajohn Biomedical Discovery Building,
Department of Medicine Health Sciences Research Week Organizer, UICCOM (2015-2018)
Admissions Committee, Medical Scientist Training Program, UICCOM (2015-2018)
Research Leadership Committee, Department of Psychiatry, UICCOM (2016-2018)
Summer Undergraduate Research Symposium Poster Judge, UICCOM (2016-2018)
Co-Chair: “Cav1.2 and Cav1.3 L-type Calcium Channels in Neuropsychiatric Disorders: From Gene to Mechanism to Behavior,” 2017 Annual Molecular Neuropsychiatry Meeting, San Francisco, CA
Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS),

UICCOM Representative at Annual Meeting (2017)
Frontiers in Neuroscience Associate Editor (2017-2022)
Neurotherapeutics "Emerging Therapeutic Strategies in Psychiatry," Co-Editor (2017)
Co-Neuroscience Director, NuvoNuro, Austin, TX (2017-2021)
Search Committee, Chair of Pharmacology, CWRU (2018-2020)
Discussion Focus Group Leader, Cleveland Brain Health Initiative Annual Meeting (2018-2020)
Core Oversight Committee, UTSWMC Medicinal Chemistry Core (2018-2021)
Neurotherapeutics "Protection of the Aging Brain," Co-Editor (2019)
Scientific Panel on Brain Health, Allen Frontiers Group (2019)
Search Committee, Vice Chair for Research, Department of Pathology, CWRU (2019)
CWRU CADRE Target Prioritization Committee (2019-2022)
Department of Pathology Faculty Recruitment Committee (2019-2022)
VA Workshop: Creating Roadmaps to Assess Visual Consequences of Traumatic Brain Injury (June 24-26, 2020)
Executive Review Board, Harrington-COVID 19 Program (2020)
Board of Developmental Disabilities COVID Vaccine Clinic (2021)
UHCMC Careers in Psychiatry Panel (Focus on Research) (January 12, 2022)
Society for Biological Psychiatry Travel Fellowship Awardee Mentoring Program
2018 – Zachary Brodnick, MD (Drexel University College of Medicine)
2019 – Amanda de Oliveira, MD (Federal University of Sao Carlos, Brazil)
2021 – Catherine Marcinkiewcz, PhD (University of Iowa Carver College of Medicine)
Interview ENT Neurotology Surgeon Scientists Candidates, UHCMC, 2022
Reviewer, Research Evaluation Team, Institute for Basic Science (IBS), South Korea, 2022
Department of Defense Congressionally Directed Medical Research Program Reviewer: Amyotrophic Lateral Sclerosis Research Program (ALSRP) Therapeutic Idea (T1) Award (2015-present)
National Science Foundation Graduate Research Fellowship Reviewer: Life Science, Neuroscience (2015-present)
ASCI/AAP Joint Meeting Poster and Abstract Judge (2016-2022)
Neurotherapeutics Editorial Board Member (2017-present)
Harrington Discovery Institute, Scholar Innovator Program, Scientific Reviewer (2017-present)
Harrington Discovery Institute, Rare Disease Program, Scientific Reviewer (2017-present)
Neurosciences Research Day Judge, CWRU (2018-present)
Executive Committee, Department of Psychiatry, CWRU / UHCMC (2018-present)
Mentor for Department of Psychiatry Residency Research Track (2018-present)
Brain Health Institute Executive Committee, UHCMC (2019-present)
Strategic Operations Committee, Department of Psychiatry, CWRU / UHCMC (2019-present)
Harrington Discovery Institute, Emerging Infectious Diseases Program, Scientific Reviewer (2019-2020)
Harrington Discovery Institute, Director, Center for Brain Health Medicines, (2018-present)
Appointment Promotion and Tenure Committee, Department of Psychiatry, CWRU / UHCMC (2019-present)
Harrington Discovery Institute, Director, HDI-MSTP Program (2019-present)
Peer Reviewer, Merit Proposals, Louis Stokes VAMC (2019-present)
Executive Review Board, Harrington-UK Rare Disease Program (2019-present)
Executive Committee, Cleveland Alzheimer's Disease Research Center (2019-present)
Cleveland Alzheimer's Disease Research Center, Co-Director, Research Education Core (2019-present)
UH Research and Education Institute Research and Innovation Day Abstract Reviewer (2020-present)

CADRC Developmental Project Reviewer (2021-present)
Harrington Discovery Institute, Director, Vinney Scholar Program in Alzheimer's Disease (2022 – present)
Rare Disease Center Director Recruitment Committee, Harrington Discovery Institute, UHCMC (2022-present)
Faculty Compensation Committee, Department of Psychiatry, CWRU / UHCMC (2022-present)
UHCMC Department of Psychiatry Senior Mentor Consulting Committee (2021-present)
Internal Advisory Board, UHCMC Research and Education Division (2021-present)
Minority Faculty Career Development Award Committee, UHCMC Research and Education Institute, Provides $25,000 / year X 3 years in unrestricted research funds to early-career under-represented in medicine (URIM) faculty working to develop independent research projects, (2022-present)
Internal Review Board, The Hartwell Foundation, CWRU (2022 – present)
CWRU / UHCMC Director of American Heart Association Partners to Promote Undergraduate Opportunities in Science (together with Stanford University, Medical College of Wisconsin, Boston University, Northwestern University, and Vanderbilt University)
Summer Undergraduate Research Experience (SURE) Program
- Oversight Committee (2022-present)
- Curriculum Committee (2022-present)
- Admissions Committee (2022-present)

Students Supported:

Uapingena Kandjoze (2022, Earlham College, Richmond, IN, Pieper Laboratory, "*Role of Cav1.2 calcium channels in maintaining the blood-brain barrier.*"
Next Step: 2023 summer student in lab, and then 2024 Graduate Program in Neuroscience at UT Austin (2024)

Rose Leon-Alvarado (2022, Earlham College, Richmond, IN, Pieper Laboratory, "*Role of traumatic brain injury in neuropsychiatric symptoms of depression*."

Donald Folk (2023, Case Western Reserve University, Cleveland, OH, Remy Laboratory, "*Comparison of immunologic responses in murine models of sepsis*."

Desmond Norris (2023, LeMoyne-Owen College, Memphis, TN, Peng Laboratory, "Assessment of social deficits in mouse models for autism spectrum disorders."

Nyasha Machote (2023, Case Western Reserve University, Cleveland, OH, Krauss Laboratory, "*3R/4R and 4R tau seeding across brain regions of mixed tau pathology*."

April Machte (2023, Nova Southeastern University, Davie, FL, Trapl Laboratory, "*Triangulation of adult, youth, and retail surveillance data in Cleveland, Ohio*."

Donald Folk (2024, Case Western Reserve University, Cleveland, OH, Remy Laboratory, "*Comparison of immunologic responses in murine models of sepsis*."

Nyasha Machote (2024, Case Western Reserve University, Cleveland, OH, Peng Laboratory)

Ashleigh Johnson (2024, Howard University, Washington, D.C., Trapl Laboratory. "Artificial intelligence-derived insights on messaging to young adults associated with packaging of flavored cigarillos.")

Zaynab Shaheed (2024, Case Western Reserve University, Cleveland, OH,

Trapl Laboratory. "*Evaluating the Potential Impact on Tobacco 21 Policy on Use of Cannabis in Youth in Cleveland, Ohio.*")

Collins Mkude (2024, Case Western Reserve University, Cleveland, OH, Kim Laboratory. Adjunct SURE Student.)

Paul Lee (2023, Case Western Reserve University, Cleveland, OH, Liu Laboratory, "*Protective Role of Mitochondrial CHCHD10 in AD and ADRDs."*, Adjunct SURE student)

Associate Director, CWRU Medical Scientist Training Program (2022-present)
Steering Committee, CWRU Medical Scientist Training Program (2022-present)
Council to Advance Human Health (CAHH) Accelerator Award Review Committee (2022), CWRU, Cleveland, OH
Society for Redox Biology and Medicine Abstract Reviewer (2022)
University Hospitals Research & Education Institute Research & Innovation Day 2022 Abstract Reviewer, Cleveland, OH
Department of Psychiatry Chair Search Committee (2022-2024)
MSTP Faculty Leader, MSTP Health & Wellness Committee (2022-present)
Department of Neuroscience Chair Search Committee (2023-2024)
Collaborative Science Pilot Award Reviewer, CWRU and UH (2022-present)
Bugher Foundation Mentor (2023 – present)
Society for Redox Biology and Medicine (SFRBM – SFFARI) 2023 Annual Convention – Co-Chair for *Posttranslational Redox Modifications of Proteins in Inflammatory Signaling: S-Nitrosylation and S-Persulfidation*, Punta del Este, Urugay
University Hospitals Research & Education Institute Research & Innovation Day Abstract Reviewer, Cleveland, OH (2023 – present)
Harrington Physician Scientist Pathway Internal Medicine Interviewer (2021 – present)
TBI Special Emphasis Panel, NIH/CSR, Alzheimer's Disease and Traumatic Brain Injury, ZRG1 AN-B 55 S, (2024)
VA NURD Grant Review Panel on Alzheimer's disease, age-related dementia, the aging brain, and cognitive impairment, (2024)
NIA/NIH U54 Grant Review Panel for Micro-physiological Systems to Advance Precision Medicine for AD/ADRD Treatment and Prevention. (2024) .
Associate Editor, *Neurotherapeutics*, 2024-present.
Guest Editor, *Neurotherapeutics, New Treatments for Alzheimer's Disease*, March 2025
Reviewer, Psychiatric Research Collaborative Pilot Grant Program, CWRU (2022 – present)
Reviewer, Research Education Committee Pilot Grant Program, Cleveland Alzheimer's Disease Research Center (2021 – present)
VA NURD Permanent Study Section Member for Review Panel on Alzheimer's disease, age-related dementia, the aging brain, and cognitive impairment (2024 – present)
Department of Pathology Internal Advisory Board, Case Western Reserve University (2024 – present)
Center for Mitochondrial Research and Therapeutics (CMRT), Case Western Reserve University, Member (2024 – present)
School of Medicine Graduate and Medical Student Research Day 2024 Judge, Case Western Reserve University
M1/M2 Psychiatry Career Panel, CWRU School of Medicine, Health Education Campus (October 21, 2024)
Neuroscience Institute Research Day Abstract Reviewer (2025)
National Neurotrauma Society Mentor
2025: Susan Yesil PhD, Harvard University

Natalie Para, Arizona State University
National Neurotrauma Society Poster Judge - 2025

Clinical Trials:

"A proof-of-concept clinical research study of efavirenz in patients with Alzheimer's' disease" (2019-2021)

Biotechnology Companies Co-Founded:

Nura Bio, Inc, South San Francisco, CA (2017)
Glengary Brain Health, Inc, Cleveland, OH (2025)

Google Scholar Profile: https://scholar.google.com/citations?user=7NpTY50AAAAJ&hl=en

My Bibliography: https://www.ncbi.nlm.nih.gov/myncbi/andrew.pieper.2/bibliography/public/

Patents (in chronological order):

1. Eliasson MJ, Sampei K, Mandir AS, Hurn PD, Traystman RJ, Bao J, **Pieper AA**, Dawson TM, Snyder SH, and Dawson VL. (2002). Method of using selective PARP inhibitors to prevent or treat neurotoxicity. US Patent 6,358,975.

2. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2013). Pro-neurogenic compounds. US Patent 8,362,277.

3. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2013). Pro-neurogenic compounds. US Patent 8,604,074.

4. McKnight SL, **Pieper AA**, Ready JM, De Brabander JK. (2014). Methods for treating amyotrophic lateral sclerosis using pro-neurogenic compounds. US Patent 8,735,440.

5. McKnight SL, **Pieper AA**, Ready JM, De Brabander JK. (2014). Methods for treating Parkinson's disease using pro-neurogenic compounds. US Patent 8,877,797.

6. McKnight SL, **Pieper AA**, Ready JM, De Brabander JK. (2014). Methods of treating traumatic brain injury using pro-neurogenic compounds. US Patent 8,791,149.

7. McKnight SL, **Pieper AA**, Ready JM, De Brabander JK. (2014). Methods of treating post-traumatic stress disorder using pro-neurogenic compounds. US Patent 8,748,473.

8. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2015). Pro-neurogenic compounds. US Patent 9,095,571.

9. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2015). Pro-neurogenic compounds. US Patent 9,095,572.

10. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2016). Pro-neurogenic compounds. US Patent 9,278,923.

11. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2016). Pro-neurogenic compounds. US Patent 9,446,022.

12. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2016). Pro-neurogenic compounds. US Patent 9,243,281.

13. McKnight SL, Ready JM, **Pieper AA**, and De Brabander JK. (2017). Neuroprotective chemicals and methods for identifying and using same. US Patent 9,645,139.

14. McKnight SL, Ready JM, **Pieper AA**, Wang G, and Han T. (2017). Neuroprotective chemicals and methods for identifying and using same. US Patent APP 15/589,302.

15. McKnight SL, **Pieper AA**, Ready JM, and Fernandez E. (2017). Pro-neurogenic compounds. US Patent App 15/644,500.

16. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2018). Pro-neurogenic compounds. US Patent 9,962,368.

17. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2018). Pro-neurogenic compounds. US Patent 9,884,820.

18. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2018). Pro-neurogenic compounds. US Patent App 15/862,086.

19. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2018). Pro-neurogenic compounds. US Patent App 15/966,076.

20. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2018). Pro-neurogenic compounds. US Patent 9,902,713.

21. **Pieper AA** and Friestad G. (2018). Compositions and methods for treating anxiety and compulsive behavior. US Patent App 15/545,283.

22. McKnight SL, **Pieper AA**, Ready JM, and De Brabander JK. (2019). Pro-neurogenic compounds. US Patent 10,172,827.

23. Markowitz S, Ready JM, and **Pieper AA**. (2019). Inhibitors of short-chain dehydrogenase activity for promoting neurogenesis and inhibiting cell death. US Patent 16,319,159.

24. McKnight SL, **Pieper AA**, Ready JM, De Brabander JK, and Zigman JM. (2019). Anti-depression compounds. US Patent 10,183,011.

25. McKnight SL, Ready JM, and **Pieper AA**. (2019). Neuroprotective compounds and use thereof. US Patent App 15/894, 181.

26. McKnight SL, **Pieper AA**, Ready JM, and Fernandez E. (2019). Pro-neurogenic compounds. US Patent App 16/180,238.

27. Markowitz S, Ready JM, and **Pieper AA**. (2022). Inhibitors of short-chain dehydrogenase activity for promoting neurogenesis and inhibiting nerve cell death. US Patent 16,995,878.

28. Leira EC. Schnell T, Rahmatalla SF, **Pieper AA**, and Chauhan A. (2020). The replication or mitigation of low frequency vibration and other physical factors to enhance the effect of thrombolysis on patients with ischemic stroke. US Patent App 16/783,003.

29. **Pieper AA**, Vázquez-Rosa E, Shin MK, and Dhar M. (2021). Methods and compositions for repairing the blood-brain barrier and other endothelium. US Patent pending.

30. **Pieper AA**, Markowitz S, Ready JM, Shin MK, Koh Y, and Vázquez-Rosa E. (2021). Inhibitors of short-chain dehydrogenase activity for promoting neurogenesis and inhibiting nerve cell death. US Patent pending.

31. **Pieper AA**, Shin MK, and Vázquez-Rosa E. (2024). Biomarker and druggable target of neurodegeneration. US Patent App 17/790,480.

32. Markowitz S, Ready JM, and **Pieper AA**. (2022). Inhibitors of short-chain dehydrogenase activity for promoting neurogenesis and inhibiting cell death. Japan Patent 2019-503202.

33. **Pieper AA**, Markowitz S, Koh Y, Shin MK, Vázquez-Rosa E. (2022). Inhibitors of short-chain dehydrogenase activity for reducing glial fibrillary acidic protein levels. US Patent pending.

34. **Pieper AA**, Shin MK, Vázquez-Rosa E. (2022). Lowering PHLDA1 levels or otherwise inhibiting PHLDA1-WDFY3 interaction to enhance endogenous reparative autophagy in order to achieve neuroprotection in neurodegenerative condition of disease or injury. US Patent pending.

35. Markowitz SM, Ready JR, **Pieper AA**. (2023). Inhibitors of short-chain dehydrogenase activity for promoting neurogenesis and inhibiting nerve cell death. Chinese Issued Patent ZL201780053063.5, issued on November 21, 2023.

36. **Pieper AA**, Greenlee WJ. (2023). Proneurogenic and neuroprotective compounds and methods of use thereof. US Patent pending.

37. **Pieper AA.** (2024). P7C3 and AAP series to restore cognitive function and neuropsychiatric behavior and reverse Alzheimer's disease (AD), AD-related dementias, and tauopathy-related neurodegenerative diseases. US Patent pending.

Book Chapters:

Pieper AA, Mazza-Lunn JS, and Wetmore DR. (2021). The Harrington Discovery Institute and Alzheimer's Disease Drug Development. In, Alzheimer's Disease Drug Development: A Research and Development Ecosystem. Eds: Cummings, Kinney, and Fillit.

Pieper AA, and Paul BD. (2025). Hydrogen sulfide signaling in neurodegenerative movement disorders. In, Hydrogen Sulfide: A Toxicant with Healing Potential. Eds: Szabo and Papapetropoulos.

Peer-Reviewed Publications (in chronological order): (current H Index: 55)

1. Zhang J, **Pieper AA**, and Snyder SH. (1995). Poly (ADP-ribose) synthetase activation: an early indicator of neurotoxic DNA damage. *Journal of Neurochemistry* 65, 1411-141. PMID: 7643121

2. Eliason MJL, Sampei K, Mandir AS, Hurn PD, Traystman RJ, Bao J, **Pieper AA**, Wang Z-Q, Dawson TM, Snyder SH, and Dawson VL. (1997). Poly (ADP-ribose) polymerase gene disruption renders mice resistant to cerebral ischemia. *Nature Medicine* 3, 1089-1095. PMID: 9334719
Featured in *Nature Medicine* ("At the scene of ishemic brain injury: Is PARP a perp?" PMID: 9334709)

3. **Pieper AA**, Brat DJ, Krug DK, Watkins CC, Gupta A, Blackshaw S, Verma A, Wang Z-Q, and Snyder SH. (1999). Poly (ADP-ribose) polymerase-deficient mice are protected from streptozotocin-induced diabetes. P*roceedings of the National Academy of Sciences USA* 96, 3059-3064. PMID: 10077636

4. Takahashi K, **Pieper AA**, Croul SE, Zhang J, and Snyder SH, and Greenberg JH. (1999). Post-treatment with an inhibitor of poly(ADP-ribose) polymerase attenuates cerebral damage in focal ischemia. *Brain Research* 829, 46-54. PMID: 10350529

5. **Pieper AA**, Verma A, Zhang J and Snyder SH. (1999). Poly (ADP-ribose) polymerase, nitric oxide and cell death. *Trends in Pharmacological Sciences* 20, 171-181. PMID: 10322503

6. LaPlaca MC, Raghupathi R, Verma A, **Pieper AA**, Saatman KE, Snyder SH, and McIntosh TK. (1999). Temporal patterns of poly(ADP-ribose) polymerase activation in the cortex following experimental brain injury in the rat. *Journal of Neurochemistry* 73, 205-213. PMID: 10386972

7. **Pieper AA**, Walles T, Wei G, Clements EE, Verma A, and Snyder SH. (2000). Myocardial postischemic injury is reduced by poly(ADP-ribose) polymerase-1 gene disruption. *Molecular Medicine* 6, 271-282. PMID: 10949908

8. **Pieper AA**, Blackshaw S, Clements EE, Brat DJ, Krug DK, White AJ, Pinto-Garcia P, Favit A, Conover JR, Snyder SH, and Verma A. (2000). Poly(ADP-ribosyl)ation basally activated by DNA strand breaks reflects glutamate-nitric oxide neurotransmission. *Proceedings of the National Academy of Sciences USA* 97, 1845-1850. PMID: 10677544

9. **Pieper AA**, Brat DJ, O'Hearn E, Krug DK, Kaplin AI, Takahashi K, Greenberg JH, Ginty D, Molliver ME, and Snyder SH. (2001). Differential neuronal localizations and dynamics of phosphorylated and unphosphorylated type 1 inositol 1,4,5-trisphosphate receptors. *Neuroscience* 102, 433-444. PMID: 11166129

10. **Pieper AA** and Treisman GJ. (2004-present). Depression, mania, and schizophrenia in HIV-infected patients. UpToDate.

11. **Pieper AA** and Treisman GJ. (2004-present). Overview of the neuropsychiatric aspects of HIV infection and AIDS. UpToDate.

12. **Pieper AA** and Treisman GJ. (2004-present). Dementia and delirium in HIV-infected patients. UpToDate.

13. **Pieper AA** and Treisman GJ. (2004-present). Substance abuse and addiction in HIV-infected patients. UpToDate.

14. **Pieper AA,** Wu X, Han TW, Estill SJ, Dang Q, Wu LC, Reece-Fincannon S, Dudley CA, Richardson JA, Brat DJ, and McKnight SL. (2005). The neuronal PAS domain protein 3 transcription factor controls FGF-mediated adult hippocampal neurogenesis in mice. *Proceedings of the National Academy of Sciences USA* 102, 14052-14057. PMID: 16172381

15. **Pieper AA** and Treisman GJ. (2005). Drug treatment of depression in HIV-positive patients: safety considerations. *Drug Safety* 28, 753-762. PMID: 16119970

16. Pickard BS, **Pieper AA**, Porteus DJ, Blackwood DH, and Muir WJ. (2006). The NPAS3 gene – emerging evidence for a role in psychiatric illness. *Annals of Medicine* 38, 439-448. PMID: 17008307

17. **Pieper AA**, Rush AJ, John A, Choate L, Gibson A, Ayacannoo S, Noack KR, Han TW, Quinn C, Ihara T, Probst B, and McKnight SL. (2006). Polymorphic variation in human circadian genes in mental illness. www.Mcknightlab.com (May 15, 2006).

18. Zhao H, Lidet N, Wei W, LaCour TG, Estill SJ, Capota E, **Pieper AA**, Harran PG. (2008). Acid promoted cinnamyl ion mobility within peptide derived macrocycles. *Journal of the American Chemical Society* 130, 13864-13866. PMID: 18811162

19. **Pieper AA***, Xie S, Capota E, Estill SJ, Zhong J, Long JM, Becker GL, Huntington P, Goldman SE, Shen C-H, Capota M, Britt JK, Kotti T, Ure K, Brat DJ, Williams NS, MacMillan KS, Naidoo J, Melito L, Hsieh J, DeBrabander J, Ready J, and McKnight SL*. (2010). Discovery of a pro-neurogenic, neuroprotective chemical. *Cell* 142, 39-51. (*co-corresponding authorship) PMID: 20603013

Featured in *Nature Chemical Biology* ("Screening: Your brain on drugs," PMID: 20720548)
Featured in *ACS Chemical Neuroscience* ("A small molecule which protects newborn neurons," PMID: 22778848)

20. Aqul A, Liu B, Ramirez C, **Pieper AA**, Estill S, Burns D, Repa J, Turley S, and Dietschy J. (2011). Unesterified cholesterol accumulation in the late endosomes/lysosomes causes neurodegeneration and is prevented by driving cholesterol export from this component. *Journal of Neuroscience* 31, 9404-9413. PMID: 21697390

21. Watkins CC, **Pieper AA**, and Treisman GJ. (2011). Safety considerations in drug treatment of depression in HIV-positive patients: an updated review. *Drug Safety* 34, 623-639. PMID: 21751824

22. MacMillan KS, Naidoo J, Liang J, Melito L, Williams NS, Morlock L, Huntington PJ, Longgood J, McKnight SL, **Pieper AA***, DeBrabander JK, and Ready JM*. (2011). Development of proneurogenic, neuroprotective small molecules. *Journal of the American Chemical Society* 133, 1428-1537. (*co-corresponding authorship) PMID: 21210688

23. Lee AS, Ra S, Rajadhyaksha AM, Britt J, Moosmang S, Hofmann F, **Pieper AA***, and Rajadhyaksha AM*. (2012). Forebrain elimination of CACNA1C mediates anxiety-like behavior in mice. *Molecular Psychiatry* 17, 1054-1055. (*co-corresponding authorship) PMID: 22665262

24. Lee AS, Gonzalez KL, Moosmang S, Hofmann F, **Pieper AA***, and Rajadhyaksha AM*. (2012). Selective genetic deletion of cacna1c in the mouse prefrontal cortex. *Molecular Psychiatry* 17, 1051. PMID: 23096954

25. Tesla R, Wolf HP, Xu P, Drawbridge J, Estill SJ, Huntington P, McDaniel L, Knobbe W, Burket A, Tran S, Starwalt R, Morlock L, Naidoo J, Williams NS, Ready JM, McKnight SL, and **Pieper AA**. (2012). Neuroprotective efficacy of aminopropyl carbazoles in a mouse model of amyotrophic lateral sclerosis. *Proceedings of the National Academy of Sciences USA* 109, 17016-17021. PMID: 23027932

Featured in *Nature Reviews Drug Discovery* ("Neurodegenerative diseases: Novel route to neuroprotection," PMID: 23197030)

26. De Jesús-Cortés H, Xu P, Drawbridge J, Estill SJ, Huntington P, Tran S, Britt J, Tesla R, Morlock L, Naidoo J, Melito L, Williams NS, Ready JM, McKnight SL, and **Pieper AA.** (2012). Neuroprotective efficacy of aminopropyl carbazoles in a mouse model of Parkinson's disease. *Proceedings of the National Academy of Sciences USA* 109, 17010-17015. PMID: 23027934

Featured in *Nature Reviews Drug Discovery* ("Neurodegenerative diseases: Novel route to neuroprotection," PMID: 23197030)

27. Caldera-Alvarado G, Khan SA, DeFina LH, **Pieper AA**, and Brown ES. (2013). Relationship between asthma and cognition: the Cooper Center Longitudinal Study. *Allergy* 68, 545-548. PMID: 23409872

28. Buchovecky CM, Turley SD, Brown HM, Kyle SM, McDonald JG, Liu B, **Pieper AA**, Huang W, Katz DM, Russel DW, Shendure J, and Justice MJ. (2013). A suppressor screen in Mecp2 mutant mice implicates cholesterol metabolism in Rett syndrome. *Nature Genetics* 45, 1013-1020. PMID: 23892605

Featured in *Nature Genetics* ("Cholesterol metabolism and Rett syndrome pathogenesis," PMID: 23985682

Featured in *Science* ("Neuroscience. Path to treat Rett syndrome," PMID: 24136956)

29. Naidoo J, Bemben CJ, Allwein SR, Liang J, **Pieper AA**, and Ready JM (2013). Development of a scalable synthesis of P7C3-A20, a potent neuroprotective compound. *Tetrahedron Letters* 54, 4429-4431.

30. Cui H, Moore J, Ashimi SS, Mason BL, Drawbridge JN, Han S, Hing B, Matthews A, McAdams CJ, Darbro BW, **Pieper AA**, Waller DA, Xing C, and Lutter M. (2013). Eating disorder predisposition is associated with ESSRA and HDAC4 mutations. *Journal of Clinical Investigation* 123, 4706-4713. PMID: 24216484

31. Xu P, Grueter B, Britt J, McDaniel L, Huntington PJ, Hodge R, Tran S, Mason BL, Lee C, Vong L, Lowell B, Malenka R, Lutter M, and **Pieper AA**. (2013). Double deletion of melanocortin receptors and SAPAP3 corrects compulsivity and obesity. *Proceedings of the National Academy of Sciences USA* 110, 10759-10764. PMID: 23754400

32. Paemka L, Mahajan VB, Skele JM, Sowers LP, Ehaideb SN, Gonzalez-Alegre P, Sasaoka T, Tao H, Miyagi A, Ueno N, Takao K, Miyakawa T, Wu S, Darbro BW, Ferguson PJ, **Pieper AA**, Britt JK, Wemmie JA, Rudd DS, Wassink T, El-Shanti H, Mefford HC, Carvill GL, Manak R, and Bassuk AG.

(2013). PRICKLE1 interaction with SYNAPSIN1 reveals a role in autism spectrum disorders. *PLOS One* 8, e80737. PMID: 24312498

33. Blaya MO, Bramlett H, Naidoo J, **Pieper AA***, and Dietrich WD*. (2014). Neuroprotective efficacy of a proneurogenic compound after traumatic brain injury. *Journal of Neurotrauma* 31, 476-486. (*co-corresponding authorship) PMID: 24070637

34. **Pieper AA**, McKnight SL, and Ready JM. (2014). P7C3 and an unbiased approach to drug discovery for neurodegenerative diseases. *Chemical Society Reviews* 43, 6716-6726. PMID: 24514864

35. Walker AK, Qian W, Chuang J-C, Tran S, Lawrence SO, Morlock L, Naidoo J, Eisch A, Williams NS, **Pieper AA***, and Zigman JM*. (2015). The P7C3 class of neuroprotective compounds exerts antidepressant efficacy in mice by increasing hippocampal neurogenesis. *Molecular Psychiatry* 20, 500-508. (*co-corresponding authorship) PMID: 24751964

36. Kemp SW, Szynkaruk M, Stanoulis KN, Wood MD, Liu EH, Willand MP, Morlock L, Naidoo J, Williams NS, Ready JM, Mangano TJ, Beggs S, Salter MW, Gordon T, **Pieper AA***, and Borschel GH*. (2015). Pharmacologic rescue of motor and sensory function by the neuroprotective compound P7C3 following neonatal nerve injury. *Neuroscience* 284, 202-216. (*co-corresponding authorship) PMID: 25313000

37. Naidoo J, De Jesús-Cortés H, Huntington P, Estill SH, Starwalt R, Morlock L, Mangano T, Williams NS, **Pieper AA***, and Ready JM*. (2014). Discovery of a neuroprotective chemical, (S)- N -(3-(3,6-Dibromo-9 H -carbazol-9-yl)-2-fluoropropyl)-6-methoxypyridin-2-amine [(-)-P7C3-S243], with improved druglike properties. *Journal of Medicinal Chemistry* 57, 3746-3754. (*co-corresponding authorship) PMID: 24697290

38. Wang G, Han T, Nijhawan D, Theodoropoulos P, Naidoo J, Yadavalli S, Mirzaei H, **Pieper AA**, Ready JM, and McKnight SL. (2014). P7C3 neuroprotective chemicals function by activating the rate-limiting enzyme in NAD salvage. *Cell* 158, 1731-1740. PMID: 25215490

39. Yin TC, Britt JK, De Jesús-Cortés H, Lu Y, Genova RM, Khan MZ, Voorhees JR, Shao J, Katzman AC, Huntington P, Wassink C, McDaniel L, Newell EA, Dutca LM, Naidoo J, Cui H, Bassuk AG, Harper MM, McKnight SL, Ready JM, and **Pieper AA**. (2014). P7C3 neuroprotective chemicals block axonal degeneration and preserve function after traumatic brain injury. *Cell Reports* 8, 1731-1740. PMID: 25220467

40. Dutca LM, Stasheff SF, Heberg-Buenz A, Rudd D, Batra N, Blodi FR, Yorek M, Yin TC, Shankar M, Herlein JA, Naidoo J, Morlock L, Williams NS, Kardon RH, Anderson MG, **Pieper AA***, and Harper MM*. (2014). Early detection of subclinical visual damage after blast-mediated TBI enables prevention of chronic visual deficit by treatment with P7C3-S243. *Investigative Ophthalmology and Visual Sciences* 55, 8330-8341. (*co-corresponding authorship) PMID: 25468886

Featured in *Investigative Ophthalmology & Visual Science* ("Delayed vision loss and therapeutic intervention after blast injury," PMID: 25525189)

41. Stanco A, Pla R, Vogt D, Chen Y, Mandal S, Walker J, Hunt RF, Lindter S, Erdman CA, **Pieper AA**, Hamilton SP, Xu D, Baraban SC, and Rubenstein JLR. (2014). NPAS1 represses the generation of specific subtypes of cortical interneurons. *Neuron* 84, 940-953. PMID: 25467980

42. Cui H, Lu Y, Khan MZ, Anderson RM, McDaniel L, Wilson HE, Tin T, Radley JJ, **Pieper AA**, and Lutter M. (2015). Behavioral disturbances in estrogen-related receptor alpha-null mice. *Cell Reports* 11, 344-350. PMID: 25865889

43. Wang J, Wegener JE, Huang T-W, Sripathy S, De Jesús-Cortés H, Xu P, Tran S, Knobbe W, Britt JK, Starwalt R, McDaniel L, Ward C, Parra D, Newcomb B, Lao U, Flowers DA, Cullen S, Jorstad NL, Yang Y, Glaskova L, Vigneau S, Kozlitana J, Reichardt HM, Gartner J, Bartolomei MS, Fang M, Loeb K, Keene CD, Bernstein I, Goodell M, Brat DJ, Huppke P, Neul J, Bedalov A, and **Pieper AA**. (2015). Wild type microglia do not reverse pathology in mouse models of Rett syndrome. *Nature* 521, E1-4. PMID: 25993969

44. De Jesús-Cortés H, Miller AD, Britt JK, De Marco AJ, De Jesús-Cortés M, Steubing E, Naidoo J, Vázquez-Rosa E, Morlock L, Williams NS, Ready JM, Narayanan K, and **Pieper AA**. (2015). Protective efficacy of P7C3-S243 in the 6-hydroxydopamine model of Parkinson's disease. *NPJ Parkinson's Disease* 1, 15010. PMID: 27158662

45. Leira E, Khan M, Zaheer A, Schnell T, Torner J, Olalde H, **Pieper AA**, Ortega S, Nagaraja N, Marks N, and Adams A. (2015). Effect of helicopter transport on neurological outcomes in a mouse model of embolic stroke with reperfusion: AIR-MICE pilot study. *International Journal of Stroke* 10, 119-124. PMID: 26376603

46. Von Holstein-Rathlou S, BonDurant L, Peltekian L, Naber MC, Yin TC, Claflin KE, Urizar AI, Madsen AN, Ratner C, Holst B, Karstoft K, Vandenbeuch A, Anderson CB, Cassel MD, Thompson AP, Solomon TPJ, Rahmouni K, Kinnamon SC, **Pieper AA**, Gillum MP, and Potthoff MJ. (2015). FGF21 mediates endocrine control of simple sugar intake and sweet taste preference by the liver. *Cell Metabolism* 23, 335-343. PMID: 26724858

Featured in *Cell Metabolism* ("The sweetest thing: regulation of macronutrient preference by FGF21," PMID: 26863484)

Featured in *Nature Reviews Endocrinology* ("FGF21 influences a 'sweet tooth' in mice," PMID: 26822924

47. Lee AS, De Jesús-Cortés H, Kabir ZD, Knobbe W, Orr M, Burgdorf C, Huntington P, McDaniel L, Britt JK, Hoffman F, Brat DJ, Rajadhyaksha AM, and **Pieper AA**. (2016). The neuropsychiatric disease associated gene *cacna1c* mediates survival of young hippocampal neurons. *eNeuro* Mar 31: ENEURO.0006-16.2015. PMID: 27066530

48. De Jesús-Cortés H, Lu Y, Anderson RM, Khan MZ, Nath V, McDaniel L, Lutter M, Radley JJ, **Pieper AA**, and Cui H. (2016). Loss of estrogen-related receptor alpha disrupts ventral-striatal synaptic function in female mice. *Neuroscience* 329, 66-73. PMID: 27155145

49. De Jesús-Cortés H, Rajadhyaksha AM, and **Pieper AA**. (2016). Cacna1c: protecting young hippocampal neurons in the adult brain. *Neurogenesis* e1231160. PMID: 27900342

50. Lutter M, Khan MZ, Satio K, Davis KC, Kidder IJ, McDaniel L, Darbro BW, **Pieper AA**, and Cui H. (2016). The eating disorder-associated HDAC4-A778T mutation alters feeding behaviors in female mice. *Biological Psychiatry* 81, 770-777. PMID: 27884425

51. Yin TC, Voorhees JR, Genova RM, Davis K, Madison A, Britt JK, Cintrón-Pérez CJ, McDaniel LM, Harper MM, and **Pieper AA**. (2016). Acute axonal degeneration drives development of cognitive, motor, and visual deficits after blast-mediated traumatic brain injury in mice. *eNeuro* Oct 31: ENEURO0220-16.2016. PMID: 27822499

52. Voorhees J, Rohlam D, Lein P, and **Pieper AA**. (2017). Neurotoxicity in preclinical models of occupational exposure to organophosphorus compounds. *Frontiers in Neuroscience* 10, Article 590. PMID: 28149268

53. Loris ZB, **Pieper AA***, and Dietrich WD*. (2017). The neuroprotective compound P7C3-A20 promotes neurogenesis and improves cognitive function after ischemic stroke. *Experimental Neurology* 290, 63-73. (*co-corresponding authorship) PMID: 28077334

54. Michaelson JJ, Shin MK, Koh JY, Brueggeman L, Zhang A, Katzman A, McDaniel L, Fang M, Pufall M, and **Pieper AA**. (2017). Neuronal PAS domain proteins 1 and 3 are master regulators of neuropsychiatric risk genes. *Biological Psychiatry* 82, 213-223. PMID: 28499489

55. Tesdahl NS, King DK, McDaniel L, and **Pieper AA**. (2017). Altered ultrasonic vocalization in neonatal SAPAP3-deficient mice. *Neuroreport* 28, 1115-1118. PMID: 29035974

56. **Pieper AA** and Baraban JM. (2017). Moving beyond serendipity to mechanism-driven psychiatric therapeutics. *Neurotherapeutics* 14, 533-536. PMID: 28653277

57. Na ES, De Jesús-Cortés H, Kabir ZD, Wang J, Ramesh V, Onder Y, Rajadhyaksha AM, Monteggia LM, and **Pieper AA**. (2017). D-cycloserine safely improves synaptic transmission in an animal model of Rett syndrome. *PLOS One* 12, e0183026. PMID: 28813484
Featured in *Science Translational Medicine* (“More excitation for Rett syndrome,” aao4218)

58. Broussard JI, Acion L, De Jesús-Cortés H, Yin T, Britt JK, Salas R, Costa-Mattioli M, Robertson C, **Pieper AA**, Arcinegas DB, and Jorge R. (2018). Repeated mild closed-head injury produces neuroinflammation, anxiety-like behavior and impaired spatial memory in mice. *Brain Injury* 32, 113-122. PMID: 29156991

59. Loris ZB, Hynton JR, **Pieper AA***, and Dietrich WD*. (2018). Beneficial effects of delayed P7C3-A20 treatment after transient MCAO in rats. *Translational Stroke Research* 9, 146-156. (*co-corresponding authorship) PMID: 28842830

60. Voorhees JR, Remy MT, McDaniel L, El Rassi E, Yin T, Dutca LM, Cintrón-Pérez CJ, Williams NS, Kahn M, Brat DJ, and **Pieper AA**. (2018). (-)-P7C3-S243 protects a rat model of Alzheimer's disease from neuropsychiatric deficits and neurodegeneration without altering amyloid deposition or reactive glia. *Biological Psychiatry* 84, 488-498. PMID: 29246437

61. Dhanesha N, Vázquez-Rosa E, Cintrón-Pérez CJ, Thedens D, Kort AJ, Chuong V, Dompenciel AMR, Chauhan AK, Leira EC, and **Pieper AA**. (2018). Treatment with uric acid reduces infarct and

improves neurological function in female mice after transient cerebral ischemia. *Journal of Stroke and Cerebrovascular Diseases* 27, 1412-1416. PMID: 29398531

62. Newell EA, Todd B, Mahoney J, **Pieper AA**, Ferguson PJ, and Bassuk AG. (2018). Combined blockade of interleukin-1a and b signaling protects mice from cognitive dysfunction after traumatic brain injury. *eNeuro* Apr 13: ENEURO.0385-17.2018. PMID: 29662944

63. Yang T, Britt JK, Cintrón-Pérez CJ, Vázquez-Rosa E, Tobin K, Stalker G, Hardie J, Taugher R, Wemmie J, **Pieper AA**, and Lee A. (2018). Ca^{2+} binding protein 1 regulates hippocampal-dependent memory and synaptic plasticity. *Neuroscience* 380, 90-102. PMID: 29660444

64. Bauman MD, Schuman CM, Carlson EL, Taylor SL, Vázquez-Rosa E, Cintrón-Pérez CJ, Shin MK, Williams NS, and **Pieper AA**. (2018). Neuroprotective efficacy of P7C3 compounds in primate hippocampus. *Translational Psychiatry* 8, 202. PMID: 30258178

65. Genova RM, Meyer KJ, Anderson MG, Harper MM, and **Pieper AA**. (2018). Neprilysin inhibition promotes corneal wound healing. *Scientific Reports* 8, 14385. PMID: 30258206

66. Blaya MO, Wasserman JM, **Pieper AA**, Sick TJ, Bramlett HM, and Dietrich WD. (2018). Neurotherapeutic capacity of P7C3 agents for the treatment of traumatic brain injury. *Neuropharmacology* 145, 268-282. PMID: 30236963

67. Vázquez-Rosa E, Watson MR, Shan JJ, Hodges TR, Schroeder RE, Cintrón-Pérez CJ, Shin MK, Yin T, Emery JL, Martin SF, Liebl DJ, and **Pieper AA**. (2018). Neuroprotective efficacy of a sigma 2 receptor/TMEM97 modulator (DKR-1677) after traumatic brain injury. *ACS Chemical Neuroscience* 10, 1595-1602. PMID: 30421909

68. Voorhees JR, Remy MT, Erikson C, Dutca LM, Brat DJ, and **Pieper AA**. (2018). Occupational-like organophosphate exposure elicits chronic microglial dysregulation and accelerates neurodegeneration and cognitive deficits in a rat model of Alzheimer's disease. *NPJ Aging and Mechanisms of Disease* 5, 1-14. PMID: 30701080

69. **Pieper AA** and McKnight SL. (2019). Evidence of benefit of enhancing nicotinamide adenine dinucleotide levels in damaged or diseased nerve cells. *Cold Spring Harbor Symposia on Quantitative Biology* 83, 207-217. PMID: 30787047

70. Lerner AJ and **Pieper AA**. (2019). Neurotherapeutics of the aging brain: complexity meets complexity. *Neurotherapeutics* 16, 539-542. PMID: 31290090

71. Harper MM, Rudd D, Meyer KJ, Kanthasamy AG, Anantharam V, Vázquez-Rosa E, Koh Y, Shin MK, Chaubey K, **Pieper AA**, Anderson MG, Dutca L, Kudva IT, and John M. (2020). Identification of chronic brain protein changes and protein targets of serum auto-antibodies after blast-mediated traumatic brain injury. *Heliyon* 6, e03374. PMID: 32099918

72. Dhanesh N, Schnell T, Rahmatalla S, DeShaw J, Thedens D, Parker B, Zimmerman B, **Pieper AA**, Chauhan AK, and Leira EC. (2020). Low frequency vibrations enhance thrombolytic therapy and improve stroke outcomes. *Stroke* 51, 1855-1861. PMID: 32397935

73. Bavley CC, Kabir ZD, Walsh AP, Kosovsky M, Hackett J, Sun H, Vázquez-Rosa E, Cintrón-Pérez CJ, Miller E, Koh Y, **Pieper AA***, and Rajadhyaksha AM*. (2020). Dopamine D1R-neuron cacna1c deficiency: a new model of extinction therapy-resistant post-traumatic stress. *Molecular Psychiatry* 26, 2286-2298. (*co-corresponding authorship). PMID: 32332995

74. Vázquez-Rosa E, Shin MK, Dhar M, Chaubey K, Cintrón-Pérez CJ, Tang X, Liao X, Miller E, Barker S, Franke K, Koh Y, Crosby DR, Schroeder R, Emery J, Yin T, Fujioka H, Reynolds JD, Harper MM, and **Pieper AA**. (2020). P7C3-A20 treatment one year after TBI in mice repairs the blood-brain barrier, arrests chronic neurodegeneration, and restores cognition. *Proceedings of the National Academy of Sciences USA* 117, 27667-27675. PMID: 33087571

75. Fang J, **Pieper AA**, Nussinov R, Lee G, Bekris L, Leverenz JB, Cummings J, and Cheng F. (2020). Harnessing endophenotypes and using network medicine in Alzheimer's drug repurposing. *Medicinal Research Reviews* 40, 2386-2426. PMID: 32656864

76. Sridharan PS, Lu Y, **Pieper AA***, and Rajadhyaksha AM*. (2020). Loss of Cav1.2 channels impairs transcription-independent hippocampal long term potentiation. *Channels* 14, 287-293. (*co-corresponding authorship). PMID: 32799605

77. Zhang X, Wang R, Hu D, Sun X, Fujioka H, Lundberg K, Chan ER, Wang Q, Xu R, Flanagan ME, **Pieper AA**, and Qi X. (2020). Oligodendroglial glycolytic stress triggers inflammasome activation and neuropathology in Alzheimer's disease. *Science Advances* 6, eabb8680. PMID: 33277246

78. Wattiez AS, Castonguay WC, Gaul OJ, White JS, Schmidt CM, Reis A, Rea BJ, Sowers LP, Cintrón-Pérez CJ, Vázquez-Rosa E, **Pieper AA***, and Russo AF*. (2021). Different forms of traumatic brain injuries cause different tactile hypersensitivity profiles. *Pain* 162, 1163-1175. (*co-corresponding authorship). PMID: 33027220

79. Shin MK, Vázquez-Rosa E, Cintrón-Pérez CJ, Riegel A, Harper MM, Ritzel D, and **Pieper AA**. (2021). Characterization of the jet-flow overpressure model of traumatic brain injury in mice. *Neurotrauma Reports* 2, 1-13. PMID: 33748810

80. Noterman MF, Chaubey K, Lin-Rahardja K, Rajadhyaksha AM, **Pieper AA***, and Taylor EB*. (2021). Dual-process brain mitochondria isolation preserves function and clarifies protein composition. *Proceedings of the National Academy of Sciences USA* 118, e2019046118. (*co-corresponding authorship). PMID: 33836587

81. Zhou Y, Fang J, Kim YH, Bekris L, Kim YH, **Pieper AA**, Leverenz JB, Cummings J, and Cheng F. (2021). AlzGPS: a genome-wide positioning systems platform to catalyze multi-omics for Alzheimer's drug discovery. *Alzheimer's Research & Therapy* 13, 24. PMID: 33441136

82. Schroeder R, Sridharan P, Nguyen L, Williams NS, Kettimuthu KP, Cintrón-Pérez CJ, Vázquez-Rosa E, **Pieper AA***, and Stevens HE*. (2021). Maternal P7C3-A20 treatment protects offspring from neuropsychiatric sequelae of prenatal stress. *Antioxidant & Redox Signaling* 35, 511-530. (*co-corresponding authorship). PMID: 33501899

83. Pak TK, Carter CS, Zhang Q, Huang SC, Searby C, Hsu Y, Taugher R, Vogel T, Cychosz CC, Genova R, Moreira NM, Steven HE, Wemmie J, **Pieper AA**, Wang K, and Sheffield VC. (2021). A

mouse model of Bardet-Biedl syndrome has impaired fear memory, which is rescued by lithium treatment. *PLOS Genetics* 17, e1009484. PMID: 33886537

84. Xu J, Zhang P, Huang Y, Zhau Y, Hou Y, Bekris LM, Lathia J, Chiang CW, Li L, **Pieper AA**, Leverenz JB, Cummings J, and Cheng F. (2021). Multimodal single-cell/nucleus RNA sequencing data analysis uncovers molecular networks between disease-associated microglia and astrocyte with implications for drug repurposing in Alzheimer's disease. *Genome Research* 31, 1900-1912. PMID: 33627474

85. Shin MK, Vázquez-Rosa E, Koh Y, Dhar M, Chaubey K, Cintrón-Pérez CJ, Barker S, Miller E, Franke K, Noterman MF, Seth D, Allen RS, Motz CT, Rao SR, Skelton RA, Pardue MT, Fliesler SJ, Wang C, Tracy TE, Gan L, Liebl DJ, Savarraj JPJ, Torres GL, Ahnstedt H, McCullough LD, Kitagawa RS, Choi HA, Zhang P, Hou Y, Chiang CW, Li L, Ortiz F, Kilgore JA, Williams NS, Whitehair VC, Gefen T, Flanagan ME, Stamler JS, Jain MK, Kraus A, Cheng F, Reynolds JD, and **Pieper AA.** (2021). Reducing acetylated-tau is neuroprotective in brain injury. *Cell*, 184, 2715-2732. PMID: 33852912

Featured in *Med* ("Acetylated tau: a missing link between head injury and dementia," PMID: 35590136)

Featured in *Nature Reviews Neuroscience* ("A shared pathway? PMID: 339533476)

86. Fang J, Zhang P, Zhou Y, Chiang CW, Tan J, Hou Y, Stauffer S, Li L, **Pieper AA**, Cummings J, and Cheng F. (2021). Endophenotype-based in-silico network medicine discovery combined with insurance record data mining identifies sildenafil as a candidate drug for Alzheimer's disease. *Nature Aging* 1, 1175-1188. PMID: 35572351

87. Zhou Y, Xu J, Hou Y, Kallianpur A, Leverenz JB, **Pieper AA**, Jehi L, and Cheng F. (2021). Network medicine links SARS-CoV-2/COVID-19 infection to brain microvascular injury and neuroinflammation in dementia-like cognitive impairment. *Alzheimer's Research & Therapy* 13, 110. PMID: 33791705

88. Schroeder R, Nguyen L, **Pieper AA***, and Stevens HE*. (2022). Maternal treatment with P7C3-A20 protects from impaired maternal care after chronic gestational stress. *Behavioural Brain Research* 416, 113558. (*co-corresponding authorship). PMID: 34453970

89. Hou Y, Zhou Y, Jehi L, Luo Y, Gack MU, Chan TA, Eng C, **Pieper AA**, and Cheng F. (2022). Aging-related and cell-type specific pathophysiologic immune responses that exacerbate disease severity in aged COVID-19 patients. *Aging Cell* Feb 21, e13544. PMID: 35023286

90. Fang J, Zhang P, Wang Q, Chiang CW, Zhou Y, Hou Y, Xu J, Chen R, Zhang B, Lewis SJ, Leverenz JB, **Pieper AA**, Li B, Li L, Cummings J, and Cheng F. (2022). Artificial intelligence framework identifies candidate targets for drug repurposing in Alzheimer's disease. *Alzheimer's Research & Therapy* 14, 1-23. PMID: 35012639

91. Shang Y, Sun X, Chen X, Miller E, Wang Q, Xu R, **Pieper AA**, Qi X. (2022). A CHCHD6-APP axis connects amyloid and mitochondrial pathology in Alzheimer's disease. *ACTA Neuropathologica* 144: 911-938. PMID: 36104602

92. Yan Y, Wang X, Chaput D, Shin MK, Koh Y, Gan L, **Pieper AA**, Woo JAA, and Kang DE. (2022). X-linked ubiquitin specific peptidase 11 increases tauopathy vulnerability in women. *Cell* 185: 3913-3930. PMID: 36198316

Featured in *Cell* ("DUB'ling down uncovers an X-linked vulnerability in Alzheimer's disease," PMID: 36240738)

Featured in *Natures Reviews Neuroscience* ("Alzheimer's X-chromosome risk," PMID: 36266577)

93. Xu J, Mao C, Hou Y, Luo Y, Binder JL, Zhou Y, Bekris L, Shin J, Hu M, Wang F, Eng C, Oprea TI, Flanagan ME, **Pieper AA**, Cummings J, Leverenz JB, Cheng F. (2022). Interpretable deep learning translation of GWAS and multi-omics findings to identify pathobiology and drug repurposing in Alzheimer's disease. *Cell Reports* 41: 111717. PMID: 36450252

94. Zhou Y, Xu J, Hou Y, Bekris L, Leverenz JB, **Pieper AA**, Cummings J, Cheng F. (2022). The Alzheimer's Cell Atlas (TACA): A single-cell molecular map for translational therapeutics accelerator in Alzheimer's disease. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association* 8: e12350. PMID: 36254161

95. Lerner AJ, Arnold SE, Maxfield E, Koenig A, Toth ME, Fortin B, Mast N, Trombetta BA, Denker J, **Pieper AA**, Tatsuoka C, Raghupathy S, and Pikuleva IA. (2022). CYP46A1 activation by low-dose efavirenz enhances brain cholesterol metabolism in subjects with early Alzheimer's disease. *Alzheimer's Research & Therapy* 14: 198. PMID: 36581878

96. Zhang P, Hou Y, Tu W, Campbell N, **Pieper AA**, Leverenz JB, Gao S, Cummings J, and Cheng F. (2023). Population-based discovery and Mendelian randomization analysis identify telmisartan as a candidate medicine for Alzheimer's disease in African Americans. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association* 19: 1876-1887. PMID: 36331056

97. Rahman MT, Bailey EM, Gansemer BM, **Pieper AA**, Manak JR, and Green SH. (2023). Anti-inflammatory therapy protects spiral ganglion neurons after aminoglycoside antibiotic-induced hair loss. *Neurotherapeutics* 20: 578-601. PMID: 36697994

98. Chorny S, Borovicka J, Patel D, Shin MK, Vázquez-Rosa E, Miller E, Wilson BM, **Pieper AA***, and Hod D*. Longitudinal in vivo monitoring of axonal integrity after brain injury. (2023). *Cell Reports Methods* 3: 100481. (*co-corresponding authorship). PMID: 37323578

99. Zhang P, Hou Y, Chiang C-W, **Pieper AA**, Cummings J, and Cheng F. Reply to: Comparator choices in pharmacoepidemiology studies of Alzheimer's disease. (2023). *Nature Aging* 22: 793-795. PMID: 37217662

100. Barker S, Paul BD, and **Pieper AA**. Increased risk of aging-related neurodegenerative disease after traumatic brain injury. (2023). *Biomedicines* 11: 1154. PMID: 37189772

101. Paul BD and **Pieper AA**. Protective roles of hydrogen sulfide in Alzheimer's disease and traumatic brain injury. (2023). *Antioxidants* 12: 1095. PMID: 37237961

102. Tripathi S, Chakraborty S, Miller E, **Pieper AA**, and Paul BD. Hydrogen sulfide signaling in neurodegenerative diseases. (2023). *British Journal of Pharmacology (June 20 online*). PMID: 37338307

103. Cazzarro S, Woo, J-A A, Wang X, Liu T, Rego S, Kee T, Koh Y, Vázquez-Rosa E, **Pieper AA**, Kang DE. Slingshot homolog-1-mediated Nrf2 sequestration tips the balance from neuroprotection to neurodegeneration in Alzheimer's disease. (2023). *Proceedings of the National Academy of Sciences USA* 20: e2217128129. PMID: 37463212

104. Sridharan PS, Miller E, and **Pieper AA**. Neuroprotective efficacy of P7C3 compounds in acute and chronic traumatic brain injury. (2023). *Neurotherapeutics* 20: 1616-1628. PMID: 37651054

105. Hou Y, Caldwell JZK, Lathia J, Leverenz JB, **Pieper AA**, Cummings J, Cheng F. (2023). Microglial immunometabolism endophenotypes contribute to sex difference in Alzheimer's disease. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association (Nov 20*). PMID: 37985399

106. Keomanivong C, Schamp J, Tabakovic E, Thangavel R, Aldridge G, **Pieper AA**, and Narayanan NS. (2024). Mice expressing A53T / A30P mutant alpha-synuclein in dopamine neurons do not display behavioral deficits. *eNeuro* 11: ENEURO.0170-23.2023. PMID: 38351057

107. Cheng F, Wang F, Tang J, Zhou Y, Fu Z, Zhang P, Haines JL, Leverenz JB, Gan L, Hu J, Rosen-Zvi M, **Pieper AA**, and Cummings J. (2024). Artificial intelligence and open science in discovery of disease-modifying medicines for Alzheimer's disease. *Cell Reports Medicine* 5: 101379. PMID: 38382465

Featured in *Neurology Today* ("AI is detecting unlikely but potential drug candidates for neurological diseases." June 19, 2025)

108. Gohel D, Zhang P, Gupta A, Li Y, Chiang C-W, Li L, Hou Y, **Pieper AA**, Cummings J, and Cheng F. (2024). Sildenafil as a candidate drug for Alzheimer's disease: real-world patient data observation and mechanistic observations from patient-induced pluripotent stem cell-derived neurons. *Journal of Alzheimer's Disease* 98: 643-657. PMID: 38427489

Featured in *Neurology Today* ("AI is detecting unlikely but potential drug candidates for neurological diseases." June 19, 2025)

109. Paul BD and **Pieper AA**. (2024). Neuroprotective roles of the biliverdin reductase A – bilirubin axis in the brain. *Biomolecules* 14: 155. PMID: 38397392

110. Bailey C, Soden D, Maroon J, Selman W, Tangen C, Gunstad J, Briskin S, Miskovsky S, Miller E, and **Pieper AA**. (2024). Elevated autoantibodies to the GluA1 subunit of the AMPA receptor in blood indicate risk of cognitive impairment in contact sports athletes, irrespective of concussion. *Neurotrauma Reports* 5: 552-562. PMID: 39071979

111. Qiu Y, Hou Y, Gohel D, Zhou Y, Xu J, Bykova M, Yang Y, Leverenz JB, **Pieper AA**, Nussinov R, Caldwell JZK, Brown JM, and Cheng F. (2024). Systematic characterization of multi-omics landscape between gut microbial metabolites and GPCRome in Alzheimer's disease. *Cell Reports* 43: 114128. PMID: 38652661

Featured in *The Scientist* ("Gut microbe metabolites lower levels of toxic tau," July 9, 2024)

112. Feng Y, Yang X, Hou Y, Zhou Y, Leverenz JB, Eng C, **Pieper AA**, Goate A, Shen Y, and Cheng F. (2024). Widespread transposable element dysregulation in human aging brains with Alzheimer's disease. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association* 20: 7495-7517. PMID: 39356058

113. Bravo CP, Krukowski K, Barker S, Wang C, Li Y, Fan L, Vázquez-Rosa E, Shin MK, Wong MY, McCullough LD, Kitagawa RS, Choi AH, Gacace A, Sinha S, **Pieper AA**, Rosi S, Chen X, Gan L. (2024). Anti-acetylated-tau immunotherapy is neuroprotective in tauopathy and brain injury. *Molecular Neurodegeneration* 19: 51. PMID: 38915105

114. Paul BD, and **Pieper AA**. (2024). Neuroprotective signaling by hydrogen sulfide and its dysregulation in Alzheimer's disease. *Current Opinion in Chemical Biology* 82: 102511. PMID: 39142018

115. Sridharan PS, Koh Y, Miller E, Kee T, Franke K, Chakraborty S, Tripathi SJ, Kee T, Chaubey K, Vázquez-Rosa E, Barker S, Liu H, Leon Alvarado RA, Franke K, Cintrón-Pérez C, Dhar M, Shin M-K, Flanagan M, Castellani RJ, Gefen T, Bykova M, Dou L, Cheng F, Wilson BM, Fujioka H, Kang DE, Woo JA, Paul BD, Qi X, **Pieper AA**. (2024). Acutely blocking excessive mitochondrial fission prevents chronic neurodegeneration after traumatic brain injury. *Cell Reports Medicine* 5: 101715. PMID: 39241772

116. Hong N, Chaplin A, Di L, Ravodina A, Bevan G, Gao H, Asase C, Gangwar RS, Kumar M, Cameron M, Mignery M, Cherepanova O, Gosh S, Finn AV, Nayak L, **Pieper AA**, Maiseyeu A. (2024). Nanoparticle-based itaconate treatment recapitulated low fat diet-induced atherosclerotic plaque resolution. *Cell Reports* 43: 114911. PMID: 39466775

117. Nishiguchi T, Yamanishi K, Patel S, Malicoat JR, Phuang NJ, Seki T, Ishi T, Aoyama B, Shimura A, Gorantla N, Yamanashi T, Iwata M, **Pieper AA**, Shinozaki G. (2024). Discovery of novel neuroprotective agents for infection-related delirium through bispectral encephalography. *Translational Psychiatry* 14: 413. PMID: 39358319

118. Yu M, Xu J, Dutta R, Trapp B, **Pieper AA**, Cheng F. (2024). Network medicine informed multi-omics integration identifies drug targets and repurposable medicines for amyotrophic lateral sclerosis. *npj Systems Biology and Applications* 10: 128. PMID: 39837893

119. Xu J, Song W, Xu Z, Danziger MM, Karavani E, Zang C, Chen X, Li Y, Rivera Paz IM, Gohel D, Su C, Zhou Y, Hou Y, Shimoni Y, **Pieper AA**, Hu J, Wang F, Rosen-Zvi M, Leverenz JB, Cummings J, and Cheng F. Single-microglia transcriptomic transition network-based prediction and real-world patient data validation identifies ketorolac as a repurposeable drug for Alzheimer's disease. (2024) *Alzheimer's & Dementia: The Journal of the Alzheimer's Association* 21:e14373. PMID: 39641322

120. Dou L, Xu Z, Xu J, Zang C, Su C, **Pieper AA**, Leverenz JB, Wang F, Zhu X, Cummings J, Cheng F. A network-based systems genetics framework identifies pathobiology and drug repurposing in Parkinson's disease. (2025) *npj Parkinson's Disease* 11: 22. PMID: 39837893

121. Feng Y, Cao S-Q, Shi Y, Sun A, Flanagan ME, Leverenz JB, **Pieper AA**, Jung JU, Cummings J, Fang EF, Zhang P, and Cheng F. Human herpesvirus-associated transposable element activation in human aging brains with Alzheimer's disease. (2025) *Alzheimers & Dementia: The Journal of the Alzheimer's Association* Feb 21:e14595. PMID: 39985481

122. Ren Y, **Pieper AA**, and Cheng F. Utilization of precision medicine digital twins in drug discovery for Alzheimer's disease. (2025) *Neurotherapeutics* Apr 22:e00553. PMID: 39965994

123. Tonegawa-Kuji R, Hou Y, Hu B, Lorincz-Comi, N, Pieper **AA**, Tousi B, Leverenz JB, and Cheng F. Efficacy and safety of passive immunotherapies targeting amyloid beta in Alzheimer's disease: a systematic review and meta-analysis. (2025). *PLOS Medicine* Mar 31:e1004568. PMID: 40163534

124. Sinha S, Gan L, and **Pieper AA**. Emerging approaches to bridging discovery science with clinical care in Alzheimer's disease. (2025). *Neurotherapeutics* Apr 22:e00589. PMID: 40246436

125. Soni P, Sharma S, Miller A, **Pieper AA**, Paul BD, and Thomas B. Nrf2/Bach1 signaling axis: a promising multifaceted therapeutic strategy for Alzheimer's disease. *Neurotherapeutics* Apr 22:e00586. PMID: 40199685

126. Parfyonov DF, Wang X, Barker S, Corey DA, Vázquez-Rosa E, Abeyesundere N, Ward WM, Darrah R, Woo J-AA, Kang D, **Pieper AA**, Kelly TJ. (2025). Cystic fibrosis-related neurodegenerative disease associated with tauopathy and cognitive decline in aged CF mice. *Journal of Cystic Fibrosis* Apr 16:S1569-1993(25)00769-6. PMID: 40240239

127. Koh Y, Vázquez-Rosa E, Gao F, Li H, Chakraborty S, Tripathi SJ, Barker S, Bud Z, Bangalore A, Kandjoze UP, León-Alvarado RA, Sridharan PS, Cordova BA, Yu Y, Hyung J, Fang H, Singh S, Katabathula R, LaFramboise T, Kasturi L, Lutterbaugh J, Beard L, Cordova E, Cintrón-Pérez CJ, Franke K, Fragoso MF, Miller E, Indrakumar V, Noel KL, Dhar M, Ajroud K, Zamudio C, Lopes FBTP, Bambakidis E, Zhu X, Wilson B, Flanagan ME, Gefen T, Fujioka H, Fink SP, Desai AB, Dawson D, Williams NS, Kim YK, Ready JM, Paul BD, Shin MK, Markowitz SD, and **Pieper AA.** (2025). Inhibiting 15-PGDH blocks blood-brain barrier deterioration and protects mice from Alzheimer's disease and traumatic brain injury. *Proceedings of the National Academy of Sciences USA* 122: e2417224122. PMID: 40397680.

Featured in *Proceedings of the National Academy of Sciences USA* ("15-PGDH inhibition preserves blood-brain barrier integrity and cognition," PMID: 40587805)

128. Gupta AK, Martin W, **Pieper AA**, Wang Y, Saykin AJ, Cheng F. (2025). Comprehensive characterization of the RNA editing landscape in the human aging brain with Alzheimer's disease. *Alzheimer's & Dementia* (*in press*)

129. Koh Y, Noterman-Soulinthavong M, Bangalore A, Kandjoze UP, Bud Z, Noel KL, Lee H, Franke K, Cintrón-Pérez CJ, Rajadhyaksha AM, Taylor EB, and **Pieper AA**. Astrocytic abnormalities in brain-specific Cacna1c-deficient mice: implications for BBB impairment in neuropsychiatric diseases associated with CACNA1C mutations. *Channels* 19: 2523788. PMID: 40574410

130. Chaudhary R, Cordova B, Hong M, Klein BR, Contreras LA, Rashmil R, Goshevski F, Smith JNP, Taylor DJ, **Pieper AA**, Markowitz SM, and Desai AB. (2025) 15-PGDH inhibition promotes hematopoietic recovery and enhances HSC function during aging. prevents age-associated hematopoietic decline by enriching anti-inflammatory M2 macrophages. *Stem Cells* Jul3:sxaf047. PMID: 4060981

Publications Under Review or Revision:

1. Chaubey K, Vázquez-Rosa E, Tripathi SJ, Shin MK, Yu Y, Dhar, M, Chakraborty S, Yamakawa M, Wang X, Sridharan PS, Miller E, Bud Z, Corella S, Barker S, Caradonna S, Koh Y, Franke K, Cintrón-

Pérez CJ, Rose S, Fang H, Cintrón-Pérez AA, Zhu X, Fujioka H, Gefen T, Flanagan ME, Williams NS, Wilson BM, Chen L, Rexach JE, Woo J-A, Kang DE, Paul BD, and **Pieper AA**. Pharmacologic reversal of advanced Alzheimer's disease in mice reveals potential therapeutic nodes in human brain. (*under revision*)

2. Zhang P, Mao C, Sun A, Yang Y, Hou Y, Fu Z, Tousi B, Leverenz JB, **Pieper AA**, Luo Y, Cummings J, Cheng F. Real-world observations of GLP-1 receptor agonists and SGLT-2 inhibitors as potential treatments for Alzheimer's disease. (*under revision*)

3. Dhar M, Vázquez-Rosa E, Chaubey K, Chakraborty S, Tripathy SJ, Liao X, Das T, Alosman MA, Fang H, Shin MK, Koh Y, Miller E, Tang X, Corella S, Sridharan P, Franke K, Cintrón-Pérez CJ, Padmanabhan R, Haragopal H, Flanagan ME, Jain R, Winters BD, Wilson BM, Paul BD, Jain MK, and **Pieper AA**. Endothelial cell KLF4 depletion causes blood-brain barrier deterioration, impaired neurovascular function, and cognitive decline in aging. (*under revision*)

4. Cheng F, Shga Z, Zhou Y, Hou Y, Zhang P, **Pieper AA**, Cummings J. Artificial intelligence for Alzheimer's disease combination therapy development. (*under revision*)

5. Vasavda C, Kothari R, Kaidery NA, Chakroborty S, Tripathi SJ, Saberikashani S, Lefler J, Kothari P, Chaubey K, Snowman AM, Barone E, Ostrtowski M, Iyer LM, Aravind L, Sharma SM, **Pieper AA**, Thomas B, Snyder SH, and Paul BD. Biliverdin reductase A is a major determinant of neuroprotective Nrf2 signaling. (*under revision*)

6. Barker S, Dou L, Corella S, Kornblit R, Apostolakis A, Caradonna S, Chaubey K, Shin MK, Sridharan PS, Franke K, Cintrón-Pérez CJ, Wilson BM, Gan L, Woo J-A, Kang DE, Cheng F, Vázquez-Rosa E, and **Pieper AA**. Acetylated-tau causes traumatic-brain injury-induced acceleration of Alzheimer's disease. (*under review*)

7. Vignane T, Hugo M, Hoffman C, Katsouda A, Petric J, Wang H, Miler M, Comas F, Petrovic D, Chen S, Milikovic JL, Jovanovic VM, Chakraborty S, Tripathi SJ, Morris JL, Chowdhury SR, Prudent J, **Pieper AA**, Paul BD, Polovic N, Murphy MP, Papapetropoulos A, Milovanovic D, and Filipovic MR. Protein thiol alterations drive pathologic liquid-liquid phase separation in the aging brain. (*under review*)

8. Kim Y-K, Cha YJ, Park SE, Kim HK, Kwon C, Kim G, Oh YR, Vázquez-Ross E, Koh Y, Gao F, Tripathi SJ, Chakraborty S, Jo D-G, Woo M, Park H, Myung S-J, Qi X, Paul BD, Fink S, Kastrui L, Lutterbaugh J, Markowitz SD*, **Pieper AA***, Kang YP*, and Shin MK*. 15-PGDH-inhibition implements a neuroprotective and anti-inflammatory autocoid network that is therapeutic in Parkinson's disease.

9. Gohel D, Gupta AK, Li Y, Tan Z, Burrows AC, Horak III AJ, Hou Y, Liu Z, Song W, Yang X, Brown JM, **Pieper AA**, Caldwell JZK, Cummings J, and Cheng F. High throughput screening of patient iPSC-derived neurons identifies gut microbial metabolites for treatment of Alzheimer's disease. (*under review*)

10. Hou Y, Zhang P, Li Y, Lorincz-Comi N, Fan F, Song W, Fang X, Qiu Y, Xu J, Dou L, Border J, Zhang H, Mazique J, Hwang SH, Roman RJ, Babak T, Bekris L, Rosen-Zvi M, Haines JL, Yu H, **Pieper AA**, Hammock BD, Leverenz JB, Cummings J, and Cheng F. Combining genetics with real-world patient data enables ancestry-specific target identification and drug discovery in Alzheimer's disease. (*under review*)

11. Feng Y, Yang X, Flanagan ME, Chen X, Bonakdarpour B, Jamshidi P, Castellani RJ, Mao Q, Chu X, Gao H, Liu Y, Dou L, Xu J, Martin W, Nelson PT, Leverenz JB, Hu M, Li YE, **Pieper AA**, Cummings J, and Cheng F. Genomic and epigenomic insights into Purkinje and granule neurons in Alzheimer's disease-related dementia using single-nucleus multiome analysis. (*under review*).

12. Qiu Y, Hou Y, Caldwell JZK, Zhu X, **Pieper AA**, Liu T, and Cheng F. Network-based integrative single-nucleus multi-omics analysis reveals cell type-specific metabolic rewiring and potential drug targets for Alzheimer's' disease. (*under review*)

13. Murlanova K, Jouroukhin Y, Pletnikova O,Kim DW, Novototskaya-Vlasova K, Husenov S, Jenson AE-S, Morales MJ, Wither HG, Rosario SR, Gomez EC, **Pieper AA**, Margolis R, Nucifora F, Kim J, and Pletnikov M. NPAS3-regulated astrocyte mitochondria bioenergetics is required for cognition. (*under review*)

14. Wang R, Barone C, Cooke S, Hu D, Wang EJ, Wang Q, Sun X, Miranda H, Surewicz W, Bamenda S, Xu R, **Pieper AA**, and Qi W. An ATAD3A–TDP43 axis drives neurodegeneration in amyotrophic lateral sclerosis. (*under review*)

15. Miller E, Bambakidis P, Templin P, Paul BD, **Pieper AA**. Emerging roles of the ciliary-mitochondrial axis in cellular homeostasis and neuroprotection. (*under review*)

16. Lorincz-Comi N, Song W, Chen X, Paz IR, Zhou Y, Xu J, Martin W, Barnard J, **Pieper AA**, Chung M, and Cheng F. Combining xQTL and genome-wide association studies from ethnically diverse populations improves druggable gene discovery. (*under review*)

17. Rengasamy P, Dazard J-E, Vergara-Martel A, Park B, Moorthy S, Edwards-Glenn J, Cara EAE, Mitchell K, Vázquez-Rosa E, Chaubey K, Paneni F, Jin F, Deo S, **Pieper AA**, and Rajagopalan, S. Air pollution, microglial chromatin remodeling, and Alzheimer's disease: a multi-model study. (*under review*)

18. Tonegawa-Kuji R, Karavani E, Danziger M, Zhang P, Hou Y, Zhou Y, Bykova M, **Pieper AA**, Rosen-Zvi M, Cummings J, and Cheng F. Evaluation of real-world patient data from target trial emulation to identify repurposable medicines for treating Alzheimer's disease. (*under review*)

19. Kim CG, Lee BJ, Kim Y-K, Lim M, Jung M, **Pieper AA**, Kim B-S, Shin M-K, and Seo H. Dual-mechanism mRNA *in vivo* CAR-macrophage therapy prevents Alzheimer's disease. (*under review*).

20. Xu J, Zhoiu Y, Lorincz-Comi N, Dou L, Hou Y, Qiu Y, Liu T, Zhu X, Yang X, Song W, Tan Z, Liu Z, Hu M, Li YE, Haines JL, Yu H, Pillai JA, **Pieper AA**, Cummings J, and Cheng F. A scalable human brain cell atlas foundation model dissects cellular immune codes and cognitive resilience. (*under review*)

21. Kee TR, Masters BM, Tran KD, Jeon H, Khan SA, Vázquez-Rosa E, Sridharan PS, Koh Y, Fujioka H, Chaput D, Wang X, Zhao X, **Pieper AA**, Kang DE, and Woo J-AA. CHCHD2 mitigates age-associated proteostatic collapse by maintaining homeostasis of the mitochondria-lysosome axis. (*under review*).

22. Qiu Y, Hou Y, Wetzel L, Zhu X, Caldwell JZK, **Pieper AA**, Liu T, and Cheng F. Cell type-specific master metabolic regulators of Alzheimer's disease. (*under review*)

23. Chakraborty S, Tripathi SJ, Vázquez-Rosa E, Chaubey K, Fujioka H, Miller E, Koh E, Tyagi R, Weil ZM, Nelson RJ, Orsburn BC, Filopovic MR, Snyder SH, **Pieper AA**, and Paul BD. Loss of cystathionine γ-lyase derails gasotransmitter homeostasis and promotes neurodegeneration. (*under review*)

24. Vázquez-Rosa E, Barker S, Miller E, Chaubey K, Koy Y, Corella S, Cintrón-Pérez AA, Ezepue A, Franke K, Cintrón-Pérez CJ, Carradonna S, Liu H, Saraswat V, Attucks OC Valcarce C, Matsumoto M, Igarashi K, Sharma SM, Paul BD, Thomas B, and **Pieper AA**. Increased Bach1 in the brain is a neuroprotective target after traumatic brain injury. (*under review*).

25. Ren Y, Hu M, Li YE, **Pieper AA**, Cumming J, and Cheng F. Single-cell digital twins for target discovery and drug repurposing in Alzheimer's disease progression. (*under review*).

26. Gupta AK, Martin W, **Pieper AA**, Leverenz J, Feixiong C. RNA editing-mediated transcriptomic diversity in human Alzheimer's disease brain. (*under review*).

27. Vázquez-Rosa E, Shin MK, Chakraborty S, Tripathy SJ Chaubey K, Yu Y, Hyung J, Dashora H, Hao J, Barker S, Cintrón-Pérez CJ, Bud Z, Dhar M, Miller E, Koh Y, Vyas A, Lindley KP, Mapsukar KA, Schoenfeld JD, Fujioka H, Wilson BM, Yu JS, Paul BD, Spitz DR, Allen BG, and **Pieper AA**. P7C3-A20 protects mice from chronic hippocampal pathology, cognitive impairment, and depression after whole brain radiotherapy. (*under review*).

28. Shin MK, Vázquez-Rosa E, Barker S, Koh Y, Wang X, Cazzaro S, Miller E, Cintrón-Pérez CJ, Franke K, Bud Z, Chaubey K, Yu Y, Vyas A, Caradonna SG, Ozuner K, Liebl DJ, Fujioka H, Rho J, Yamamoto A, Simonsen A, Hyde TM, Bharadwaj R, Tooke J, Kleinmen J, Barrow J, Weinberger DR, Zhu X, Qi X, Flanagan ME, Castellani RJ, Gefen T, Wilson BM, Woo JAA, Kang DE, Paul BD, and **Pieper AA**. Reducing PHLDA1 preserves neuroprotective brain autophagy in aging, injury, and neurodegenerative disease. (*under review*)

29. Vázquez-Rosa E, Tripathy SJ, Chakraborty S, Shin MK, Chaubey K, Barker S, Lindley K, Ezepue A, Cintrón-Pérez C, Franke, K, Broussard JI, Arciniegas DB, Wilson BM, Paul BD, Jorge R, and **Pieper AA**. Chronic lipid peroxidation and nitrotyrosine accumulation in the brain correlates with injury severity and transition of acute traumatic brain injury into chronic neurodegeneration. (*under review*)