Jui-Heng (Henry) Tseng, Ph.D.

Assistant Professor
School of Life Science and ASU-Banner Neurodegenerative Disease Research Center
The Biodesign Institute C Room 577, Arizona State University, Tempe, AZ 85287
Henry.Tseng@asu.edu
https://www.htsenglab.org

EDUCATION

University of South Carolina, Columbia, SC (2014)
Ph.D. in Biomedical Engineering

National Tsing Hua University, Hsinchu, Taiwan (2007)
B.S. in Chemical Engineering

PROFESSIONAL EXPERIENCE

Arizona State University, Tempe, AZ (2023 – present)
Assistant Professor (Tenure-track), School of Life Sciences

Arizona State University, Tempe, AZ (2023 – present)
Assistant Professor, ASU-Banner Neurodegenerative Disease Research Center

University of North Carolina, Chapel Hill, NC (2014 – 2023)
Lead Research Scientist, Department of Neurology, School of Medicine (2022 – 2023)
George Von Oesen Research Fellow, Department of Neurology, School of Medicine (2018 – 2021)
Postdoctoral Research Associate, Department of Neurology, School of Medicine (2014 – 2017)
Research mentor: Todd J. Cohen, Ph.D.
Research topic: Tau mediated neurodegeneration in normal aging and Alzheimer's disease.

University of South Carolina, Columbia, SC (2009 – 2014)
Graduate Research Assistant, Biomedical Engineering, College of Engineering and Computing
Advisor: Melissa A. Moss, Ph.D.
Research topic: Multi-target directed ligands as inhibitors of amyloid-β aggregation and regulators of Alzheimer's disease

Academia Sinica, Taipei, Taiwan (2008 – 2009)
Research Assistant, Institute of Biological Chemistry
Advisor: Yu-Ling Shih, Ph.D.
Research topic: Investigating the Par protein system in streptomyces and bacterial chromosome segregation.

RESEARCH SUPPORT

Current:

- Arizona ADRC Developmental Grant (Tseng-PI) 2025 – 2027
  Unraveling the aged tau species that develop as a consequence of normal aging
- ASU Start up fund (Tseng-PI) 2023 –
- AARF-22-926617 (Tseng-PI) 2022 – 2025
  Alzheimer's Association
  Unraveling new signaling pathways for tau mediated neurodegeneration.

Completed:

- Research Education Component Scholar Award (Tseng-PI) 2022 – 2023
  Duke-UNC Alzheimer's Disease Research Center
  Deciphering the aged tau species that evolve during normal aging.

SELECTED ACADEMIC AWARDS AND RECOGNITION

- Duke-UNC Alzheimer's Disease Research Center REC Scholar, 2022
- Alzheimer's Association Research Fellow, 2022
- Outstanding Research Paper Presentation Award, NCT-PASS Annual Symposium, Raleigh, NC. 2021
- UNC George Von Oesen Research Fellow, 2018
- Notable Poster Presentation Award, Postdoctoral Research Symposium. Raleigh, NC. 2017

SELECTED PEER-REVIEWED ARTICLES

1. Miles R. Bryan, Xu Tian, **Jui-Heng Tseng,** Baggio Evangelista, Joey Ragusa, Winifred Trotman, David Irwin, Todd J. Cohen. Development and characterization of novel anti-acetylated tau monoclonal antibodies to probe pathogenic tau species in Alzheimer's disease. *Acta Neuropathologica Communications*. 2024; 12(1):163.
2. **Jui-Heng Tseng,** Todd J. Cohen. The emerging nontraditional roles for tau in the brain. *Cytoskeleton (Hoboken).* 2023 Dec 8. Online ahead of print.
3. Zarin Tabassum‡, **Jui-Heng Tseng‡,** Camryn Isemann, Xu Tian, Youjun Chen, Laura E. Herring, Todd J. Cohen. Identification of a reciprocal negative feedback loop between tau-modifying proteins MARK2 kinase and CBP acetyltransferase. *Journal of Biological Chemistry*. 2022; 101977.
4. Ivana Y. Quiroga, Aimee E. Cruikshank, Kathleen S. M. Reed, Marielle L Bond, Baggio A Evangelista, **Jui-Heng Tseng**, Joey V Ragusa, Rick B. Meeker, Hyejung Won, Sarah Cohen, Todd J. Cohen, Douglas H. Phanstiel. Synthetic amyloid beta does not induce a robust transcriptional response in innate immune cell culture systems. *Journal of Neuroinflammation.* 2022; 19 (1): 1-12.

5. **Jui-Heng Tseng**, Aditi Ajit, Zarin Tabassum, Niyati Patel, Xu Tian, Youjun Chen, Alex W. Prevatte, Karen Ling, Frank Rigo, Rick B. Meeker, Laura Herring, Todd J. Cohen. Tau seeds are subject to aberrant modifications resulting in distinct signatures. *Cell Reports*. 2021; 35 (4), 109037.
6. Hanna Trzeciakiewicz, Deepa Ajit, **Jui-Heng Tseng**, Youjun Chen, Aditi Ajit, Zarin Tabassum, Rebecca Lobrovich, Claire Peterson, Michelle S Itano, Natallia V. Riddick, Ashutosh Tripathy, Sheryl Moy, Virginia M.Y. Lee, John Q. Trojanowski, David J. Irwin, Todd J. Cohen. An HDAC6-dependent surveillance mechanism suppresses tau-mediated neurodegeneration and cognitive decline. *Nature Communications.* 2020; 11 (1), 1-18.
7. Connor M. Wander, **Jui-Heng Tseng**, Sheng Song, Heba Al Housseiny, Seth Tart, Aditi Ajit, Yen-Yu Ian Shih, Rebecca Lobrovich, Juan Song, Rick B. Meeker, David J. Irwin, Todd J. Cohen. The accumulation of tau-immunoreactive hippocampal granules and corpora amylacea implicates reactive glia in tau during aging. *iScience*. 2020; 23 (7), 101255
8. Deepa Ajit, Hanna Trzeciakiewicz, **Jui-Heng Tseng**, Connor M. Wander, Youjun Chen, Aditi Ajit, Diamond P. King, Todd J. Cohen. A unique tau conformation generated by an acetylation-mimic mutation modulates P301S-dependent tau pathology and hyper-phosphorylation. *Journal of Biological Chemistry*. 2019; 294 (45), 16698-16711
9. **Jui-Heng Tseng**, Ling Xie, Sheng Song, Youmei Xie, Lauren Allen, Deepa Ajit, Jau-Shyong Hong, Xian Chen, Rick B. Meeker, Todd J. Cohen. The deacetylase HDAC6 mediates endogenous neuritic tau pathology. *Cell Reports*. 2017; 20 (9), 2169-2183
10. Hanna Trzeciakiewicz, **Jui-Heng Tseng**, Connor M. Wander, Victoria Madden, Ashutosh Tripathy, Chao-Xing Yuan, Todd J. Cohen. A dual pathogenic mechanism links tau acetylation to sporadic tauopathy. *Scientific Reports*. 2017; 7 (1), 1-13

‡ These authors contributed equally to this work