

Stanford



Jack Tzu-Chieh Wang

Instructor, Neurology & Neurological Sciences

CLINICAL OFFICES

- **Stanford Neurocritical Care Program**

780 Welch Rd Ste 350

Stanford, CA 94304

Tel (650) 723-2606

Fax (650) 723-4451

Bio

CLINICAL FOCUS

- Neurocritical Care
- Neurology

ACADEMIC APPOINTMENTS

- Instructor, Neurology & Neurological Sciences

HONORS AND AWARDS

- Excellence in Research Award, Los Angeles Neurological Society (2018)
- Best Poster & Presentation, UCLA-Semel Neuroscience Institute Symposium (2018)
- R25 Translational Neuroscience Research Grant, NINDS (2016-2020)
- Bio-X Bowes Research Fellow, Stanford University School of Medicine (2011-2014)
- Best Poster Award, Stanford Institute of Neuroscience Symposium (2010)
- Research Fellowship, American Heart & Stroke Association (2009-2011)
- Research Fellowship, Adelson Neural Repair & Rehabilitation Foundation (2007-2009)
- Translational Neuroscience Research Scholar, Johnson & Johnson (2007-2009)
- Student Delegate, International Achievement Summit (2007)
- Medical Research Fellowship, Howard Hughes Medical Institute (2006-2007)
- Stanford Medical Scholars, Stanford University School of Medicine (2005-2007)
- Excellence in Undergraduate Teaching, Stanford University, Department of Biological Sciences (2003)

PROFESSIONAL EDUCATION

- Medical Education: Stanford University School of Medicine (2014) CA
- Board Certification: Neurology, American Board of Psychiatry and Neurology (2018)
- Fellowship: Stanford University Neurocritical Care and Stroke Fellowship (2020) CA

- Residency: UCLA Dept of Neurology (2018) CA
- Internship: Kaiser Permanente Santa Clara Internal Medicine Residency (2015) CA
- PhD, Stanford University School of Medicine , Neuroscience (2014)
- MD, Stanford University School of Medicine , Medicine (2014)

LINKS

- Stanford Stroke Center: http://med.stanford.edu/neurology/faculty/fellows/jack_wang.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My primary research focus is in understanding the molecular mechanisms of axonal degeneration and subsequent failure of axonal regeneration in the CNS. I have identified a critical cellular pathway mediating axonal degeneration following neurological injuries. Modulating this pathway therefore presents a novel therapeutic target to protect vulnerable nerve fibers and enhance functional recovery in a multitude of CNS diseases.

Publications

PUBLICATIONS

- **Absence of Sarm1 Promotes Axonal and Neuronal Survival after Stroke**
Wang, J., Toh, B., Komuro, Y., Hinman, J. D.
WILEY.2019: S240
- **Developmental mechanisms for establishing functional non-image-forming visual circuits**
Dhande, O. S., Phan, A. H., Seabrook, T. A., Nguyen, P. L., Wang, J. T., Huberman, A.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2017
- **Local axonal protection by WldS as revealed by conditional regulation of protein stability** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Wang, J. T., Medress, Z. A., Vargas, M. E., Barres, B. A.
2015; 112 (33): 10093-10100
- **Gap Junctions Are Essential for Generating the Correlated Spike Activity of Neighboring Retinal Ganglion Cells** *PLOS ONE*
Voelgyi, B., Pan, F., Paul, D. L., Wang, J. T., Huberman, A. D., Bloomfield, S. A.
2013; 8 (7)
- **Culturing hybridoma cell lines for monoclonal antibody production.** *Cold Spring Harbor protocols*
Winzeler, A., Wang, J. T.
2013; 2013 (7): 640-642
- **Purification and culture of retinal ganglion cells.** *Cold Spring Harbor protocols*
Winzeler, A., Wang, J. T.
2013; 2013 (7): 614-617
- **Purification and culture of retinal ganglion cells from rodents.** *Cold Spring Harbor protocols*
Winzeler, A., Wang, J. T.
2013; 2013 (7): 643-652
- **Gap junctions are essential for generating the correlated spike activity of neighboring retinal ganglion cells.** *PloS one*
Völgyi, B., Pan, F., Paul, D. L., Wang, J. T., Huberman, A. D., Bloomfield, S. A.
2013; 8 (7): e69426
- **Axon Degeneration: Where the Wld(s) Things Are** *CURRENT BIOLOGY*
Wang, J. T., Barres, B. A.
2012; 22 (7): R221-R223

- **Axon degeneration: Molecular mechanisms of a self-destruction pathway** *JOURNAL OF CELL BIOLOGY*
Wang, J. T., Medress, Z. A., Barres, B. A.
2012; 196 (1): 7-18
- **Disease gene candidates revealed by expression profiling of retinal ganglion cell development** *JOURNAL OF NEUROSCIENCE*
Wang, J. T., Kunzevitzky, N. J., Dugas, J. C., Cameron, M., Barres, B. A., Goldberg, J. L.
2007; 27 (32): 8593-8603
- **An oligodendrocyte lineage-specific semaphorin, sema5A, inhibits axon growth by retinal ganglion cells** *JOURNAL OF NEUROSCIENCE*
Goldberg, J. L., Vargas, M. E., Wang, J. T., Mandemakers, W., Oster, S. F., Sretavan, D. W., Barres, B. A.
2004; 24 (21): 4989-4999

PRESENTATIONS

- Molecular Mechanisms of Wlds and SARM1 Mediated Protection in Stroke - American Academy of Neurology Annual Conference (4/2018)
- What is the Molecular Mechanism of Axon Degeneration in Stroke? - American Society of Neurochemistry Annual Conference (3/2018)