

# Stanford

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## Hansen Chen

Postdoctoral Scholar, Neurosurgery

### Bio

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#### HONORS AND AWARDS

- Postdoctoral Fellowship, American Heart Association (01-01-2022)
- Young Investigator Award, 13th International Symposium on Healthy Aging (03/2018)
- Best Oral Presentation, The 8th Symposium for Cross-straits, Hong Kong and Macao on Free Radical Biology and Medicine (09/24/2018)
- Travel Award, 2018 World life Science (10/29/2018)
- Ph.D. studentship, University of Hong Kong (2011-2015)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Society for Neuroscience (2021 - present)
- Member, American Heart Association (2021 - present)

#### PROFESSIONAL EDUCATION

- B.Sc., Sun Yat-Sen University , Biochemistry (2011)
- PhD, University of New Mexico , Exchange student (2014)
- Ph.D., The University of Hong Kong , Medicine (2016)

#### STANFORD ADVISORS

- Gary Steinberg, Postdoctoral Faculty Sponsor

#### COMMUNITY AND INTERNATIONAL WORK

- Blogger
- Reviewer
- Reviewer
- Reviewer
- Reviewer

#### LINKS

- Publons/Researcher ID: <https://publons.com/researcher/1282246/hansen-chen/>
- My ORCID: <https://orcid.org/0000-0001-9506-6894>
- My Bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/1ZkoS7kaa9cUb7/bibliography/public/>
- Twitter: <https://twitter.com/Chenhsbbb>

- My Blog Posts in Stroke Journal: <https://www.ahajournals.org/action/doSearch?target=do-blog&content=blog&sortBy=Earliest&ContribAuthorPrimaryRaw=Chen%2C+Hansen&AfterYear=2023&BeforeYear=2023&startPage=&ContentGroupKey=10.1161%2Fstrokeblog>

## Research & Scholarship

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### RESEARCH INTERESTS

- Brain and Learning Sciences

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Immune and Nervous Systems Interaction; Ischemic Postconditioning; Optogenetics

### LAB AFFILIATIONS

- Gary Steinberg (8/1/2020)

## Publications

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### PUBLICATIONS

- **Natural Products for the Potential Use of Neuroprotective and Neurorestorative Effects in Stroke.** *Pharmaceuticals (Basel, Switzerland)*  
Chen, H., Liu, Q.  
2023; 16 (11)
- **Editorial: Natural products in the treatment of neurological diseases: identification of novel active compounds and therapeutic targets.** *Frontiers in pharmacology*  
Zhao, J., Wang, D., Cui, W., Chen, H.  
2023; 14: 1294625
- **Editorial: Advances in integrative medicine for neurodegenerative diseases: from basic research to clinical practice.** *Frontiers in neurology*  
Liu, S., Zheng, G., Chen, H., Li, G., Guo, X.  
2023; 14: 1197641
- **Rapid Complement Activation Induced By Acute Hyperglycemia Worsens Ischemic Stroke Outcome**  
Chen, H., Chiang, T., Kim, A., Tomlinson, S., Bliss, T., Cheng, M. Y., Steinberg, G.  
LIPPINCOTT WILLIAMS & WILKINS.2023
- **Angong Niuhuang Wan reduces hemorrhagic transformation and mortality in ischemic stroke rats with delayed thrombolysis: involvement of peroxynitrite-mediated MMP-9 activation.** *Chinese medicine*  
Chen, H., Luo, Y., Tsoi, B., Gu, B., Qi, S., Shen, J.  
2022; 17 (1): 51
- **Optogenetic Stimulation Effects On Cortico-thalamic Circuit Plasticity After Stroke**  
Chiang, T., Vahdat, S., Pendharkar, A., Harvey, S., Uchino, H., Cao, Z., Kim, A., Choy, M., Chen, H., Lee, H., Cheng, M. Y., Lee, J., Steinberg, et al  
LIPPINCOTT WILLIAMS & WILKINS.2022
- **Editorial: Blood-Brain Barrier Dysregulation and Recovery Following Brain Ischemia: Cellular Constituents, Molecular Mechanisms, and Therapeutic Strategies Enabling Successful Brain Remodeling.** *Frontiers in cellular neuroscience*  
Chen, H., Cao, Z., Gu, Y., Hermann, D. M.  
2022; 16: 968425
- **Glycyrrhetic acid induces oxidative/nitrative stress and drives ferroptosis through activating NADPH oxidases and iNOS, and depriving glutathione in triple-negative breast cancer cells.** *Free radical biology & medicine*  
Wen, Y., Chen, H., Zhang, L., Wu, M., Zhang, F., Yang, D., Shen, J., Chen, J.  
2021
- **Ischemic Postconditioning Protects Against Hemorrhagic Transformation Induced by Hyperglycemia in Ischemic Stroke**  
Chen Hansen, Cheng, M. Y., Bliss, T., Zhao Heng, Steinberg, G.  
LIPPINCOTT WILLIAMS & WILKINS.2021

- **Promotion of Momordica Charantia polysaccharides on neural stem cell proliferation by increasing SIRT1 activity after cerebral ischemia/reperfusion in rats.** *Brain research bulletin*  
Ma, J., Fan, H., Cai, H., Hu, Z., Zhou, X., Li, F., Chen, H., Shen, J., Qi, S.  
2021
- **Peroxynitrite activates NLRP3 inflammasome and contributes to hemorrhagic transformation and poor outcome in ischemic stroke with hyperglycemia.** *Free radical biology & medicine*  
Chen, H., Guan, B., Chen, S., Yang, D., Shen, J.  
2021; 165: 171-183
- **Brain-wide neural dynamics of poststroke recovery induced by optogenetic stimulation.** *Science advances*  
Vahdat, S., Pendharkar, A. V., Chiang, T., Harvey, S., Uchino, H., Cao, Z., Kim, A., Choy, M., Chen, H., Lee, H. J., Cheng, M. Y., Lee, J. H., Steinberg, et al  
2021; 7 (33)
- **Rehmapicroside ameliorates cerebral ischemia-reperfusion injury via attenuating peroxynitrite-mediated mitophagy activation.** *Free radical biology & medicine*  
Zhang, Y., He, Y., Wu, M., Chen, H., Zhang, L., Yang, D., Wang, Q., Shen, J.  
2020; 160: 526-539
- **Proteomics-Guided Study on Buyang Huanwu Decoction for Its Neuroprotective and Neurogenic Mechanisms for Transient Ischemic Stroke: Involvements of EGFR/PI3K/Akt/Bad/14-3-3 and Jak2/Stat3/Cyclin D1 Signaling Cascades** *MOLECULAR NEUROBIOLOGY*  
Chen, X., Chen, H., He, Y., Fu, S., Liu, H., Wang, Q., Shen, J.  
2020
- **A Highly Selective and Sensitive Chemiluminescent Probe for Real-Time Monitoring of Hydrogen Peroxide in Cells and Animals.** *Angewandte Chemie (International ed. in English)*  
Yang, D., Ye, S., Hananya, N., Green, O., Chen, H., Zhao, A. Q., Shen, J., Shabat, D.  
2020
- **Targeting Myeloperoxidase (MPO) Mediated Oxidative Stress and Inflammation for Reducing Brain Ischemia Injury: Potential Application of Natural Compounds** *FRONTIERS IN PHYSIOLOGY*  
Chen, S., Chen, H., Du, Q., Shen, J.  
2020; 11: 433
- **Ischemic postconditioning for stroke treatment: current experimental advances and future directions.** *Conditioning medicine*  
Chen, H., Shen, J., Zhao, H.  
2020; 3 (2): 104-115
- **Potential Natural Compounds for Preventing 2019-nCoV Infection**  
Chen, H., Du, Q.  
[www.preprints.org](http://www.preprints.org).  
2020
- **Therapeutic Targets of Oxidative/Nitrosative Stress and Neuroinflammation in Ischemic Stroke: Applications for Natural Product Efficacy with Omics and Systemic Biology.** *Pharmacological research*  
Chen, H. n., He, Y. n., Chen, S. n., Qi, S. n., Shen, J. n.  
2020: 104877
- **Glycyrrhizin Prevents Hemorrhagic Transformation and Improves Neurological Outcome in Ischemic Stroke with Delayed Thrombolysis Through Targeting Peroxynitrite-Mediated HMGB1 Signaling.** *Translational stroke research*  
Chen, H., Guan, B., Wang, B., Pu, H., Bai, X., Chen, X., Liu, J., Li, C., Qiu, J., Yang, D., Liu, K., Wang, Q., Qi, et al  
2019
- **Astragaloside VI Promotes Neural Stem Cell Proliferation and Enhances Neurological Function Recovery in Transient Cerebral Ischemic Injury via Activating EGFR/MAPK Signaling Cascades** *MOLECULAR NEUROBIOLOGY*  
Chen, X., Wu, H., Chen, H., Wang, Q., Xie, X., Shen, J.  
2019; 56 (4): 3053-67
- **Kinesin-1 Regulates Extrasynaptic Targeting of NMDARs and Neuronal Vulnerability Toward Excitotoxicity** *SCIENCE*  
Lin, R., Duan, Z., Sun, H., Fung, M., Chen, H., Wang, J., Lau, C., Yang, D., Liu, Y., Ni, Y., Wang, Z., Cui, J., Wu, et al

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2019; 13: 82-+

- **Active compounds and molecular targets of Chinese herbal medicine for neurogenesis in stroke treatment: Implication for cross talk between Traditional Chinese Medicine and Biomedical Sciences** *World Journal of Traditional Chinese Medicine*  
Chen, X., Chen, H., Shen, J.  
2019
- **Potential molecular targets of peroxynitrite in mediating blood-brain barrier damage and haemorrhagic transformation in acute ischaemic stroke with delayed tissue plasminogen activator treatment** *FREE RADICAL RESEARCH*  
Chen, H., Chen, X., Luo, Y., Shen, J.  
2018; 52 (11-12): 1220–39
- **Baicalin Attenuates Blood-Brain Barrier Disruption and Hemorrhagic Transformation and Improves Neurological Outcome in Ischemic Stroke Rats with Delayed t-PA Treatment: Involvement of ONOO--MMP-9 Pathway** *TRANSLATIONAL STROKE RESEARCH*  
Chen, H., Guan, B., Chen, X., Chen, X., Li, C., Qiu, J., Yang, D., Liu, K., Qi, S., Shen, J.  
2018; 9 (5): 515–29
- **Targeting RNS/caveolin-1/MMP signaling cascades to protect against cerebral ischemia-reperfusion injuries: potential application for drug discovery** *ACTA PHARMACOLOGICA SINICA*  
Chen, H., Chen, X., Li, W., Shen, J.  
2018; 39 (5): 669–82
- **Peroxynitrite enhances self-renewal, proliferation and neuronal differentiation of neural stem/progenitor cells through activating HIF-1 alpha and Wnt/beta-catenin signaling pathway** *FREE RADICAL BIOLOGY AND MEDICINE*  
Chen, X., Zhou, B., Yan, T., Wu, H., Feng, J., Chen, H., Gao, C., Peng, T., Yang, D., Shen, J.  
2018; 117: 158–67
- **One-Compound-Multi-Target: Combination Prospect of Natural Compounds with Thrombolytic Therapy in Acute Ischemic Stroke** *CURRENT NEUROPHARMACOLOGY*  
Chen, H., Qi, S., Shen, J.  
2017; 15 (1): 134–56
- **Baicalin Reduces Hemorrhagic Transformation of Rat Ischemic Stroke with Delayed T-PA Treatment**  
Chen, H., Shen, J.  
ELSEVIER SCIENCE INC.2016: S159
- **Glycyrrhizin Could Inhibit HMGB1-MMP-9 Signaling and Prevent Hemorrhagic Transformation in Ischemic Stroke with Delayed T-PA Treatment**  
Shen, J., Chen, H.  
ELSEVIER SCIENCE INC.2016: S167
- **Caveolin-1 Is Critical for Lymphocyte Trafficking into Central Nervous System during Experimental Autoimmune Encephalomyelitis** *JOURNAL OF NEUROSCIENCE*  
Wu, H., Deng, R., Chen, X., Wong, W., Chen, H., Gao, L., Nie, Y., Wu, W., Shen, J.  
2016; 36 (19): 5193–99
- **Targeting ONOO-/HMGB1/MMP-9 Signaling Cascades: Potential for Drug Development from Chinese Medicine to Attenuate Ischemic Brain Injury and Hemorrhagic Transformation Induced by Thrombolytic Treatment** *Integrative Medicine International*  
Chen, H., Guan, B., Shen, J.  
2016
- **Peroxynitrite Decomposition Catalyst Reduces Delayed Thrombolysis-induced Hemorrhagic Transformation in Ischemia-reperfused Rat Brains** *CNS NEUROSCIENCE & THERAPEUTICS*  
Chen, H., Chen, X., Feng, J., Liu, K., Qi, S., Shen, J.  
2015; 21 (7): 585–90
- **Momordica charantia polysaccharides could protect against cerebral ischemia/reperfusion injury through inhibiting oxidative stress mediated c-Jun N-terminal kinase 3 signaling pathway** *NEUROPHARMACOLOGY*  
Gong, J., Sun, F., Li, Y., Zhou, X., Duan, Z., Duan, F., Zhao, L., Chen, H., Qi, S., Shen, J.  
2015; 91: 123–34
- **Pros and cons of current approaches for detecting peroxynitrite and their applications** *Biomedical Journal*  
Chen, X., Chen, H., Deng, R., Shen, J.

2014; 37

- **Targeting reactive nitrogen species: a promising therapeutic strategy for cerebral ischemia-reperfusion injury** *ACTA PHARMACOLOGICA SINICA*  
Chen, X., Chen, H., Xu, M., Shen, J.  
2013; 34 (1): 67–77

## PRESENTATIONS

- Angong Niu Huang Pill (ANP) attenuated hemorrhagic transformation and improved neurological outcomes in ischemic stroke with delayed tissue plasminogen activator (t-PA) treatment - The 4th Global Chinese Symposium & The 8th Symposium for Cross-straits, Hong Kong and Macao on Free Radical Biology and Medicine (September 21, 2018 - 9/24/2018)
- Chinese Herbal Medicine: A Great Opportunity for Reducing Thrombolysis-mediated Hemorrhagic Transformation in Ischemic Stroke Treatment - 6th Macau Symposium on Biomedical Sciences (6/13/2019 - 6/13/2019)
- Baicalin is a potential combination therapy with t-PA for ischemic stroke treatment - World Life Science Conference (10/29/2018 - 10/29/2018)
- Detrimental role of peroxynitrite in mediating hemorrhagic transformation induced by delayed tissue plasminogen activator treatment in ischemic stroke - 17th Meeting of Consortium for Globalization of Chinese Medicine (8/12/2018 - 8/12/2018)
- Glycyrrhizin Attenuated Hemorrhagic Transformation and Improved Neurological Outcomes in Ischemic Stroke with Delayed t-PA Treatment - 13th International Symposium on Healthy Aging (3/12/2018 - 3/12/2018)
- Baicalin reduces hemorrhagic transformation in ischemic stroke rats with delayed t-PA treatment: involvement of ONOO<sup>-</sup>–MMP-9 pathway - Journal of Cerebral Blood Flow & Metabolism. 28th International Symposium on Cerebral Blood Flow, Metabolism and Function and the 13th International Conference on Quantification of Brain Function with PET (4/1/2017 - 4/4/2017)
- Caveolin-1 phosphorylation plays an important role in inhibition of oxygen–/INS; glucose-deprivation-induced endothelial cell apoptosis via regulating STAT3 pathway - XXI World Congress of Neurology (9/21/2013 - 9/26/2013)