FENG SANG

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PROFILE

Currently I am a doctoral student of State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, working at the Center for Beijing Aging Brain Rejuvenation Initiative (BABRI) (PI: Prof. Zhanjun Zhang).

My current research mainly focuses on using machine learning methods and novel modeling methods to explore relationship between cognitive aging and brain structure and function, as well as the lifespan pattern of brain network.

ResearchGate: https://www.researchgate.net/profile/Feng-Sang

EDUCATION

Beijing Normal University, Beijing, China — PhD student, 2017-2023 (excepted)

Psychology, State Key Laboratory of Cognitive Neuroscience and Learning.

Lanzhou University, Lanzhou, China — B.S., 2013-2017

Computer science and technology, School of Information Science and Engineering.

PUBLICATIONS

Peer-Reviewed Article Publications

- Sang, F.#, Chen, Y#., Chen, K., Dang, M., Gao, S., & Zhang, Z. (2021). Sex Differences in Cortical Morphometry and White Matter Microstructure During Brain Aging and Their Relationships to Cognition. Cerebral Cortex, 31(11), 5253–5262. https://doi.org/10.1093/cercor/bhab155
- Gao, S., Chen, Y., <u>Sang, F.</u>, Yang, Y., Xia, J., Li, X., Zhang, J., Chen, K., & Zhang, Z. (2019). White Matter Microstructural Change Contributes to Worse Cognitive Function in Patients With Type 2 Diabetes. *Diabetes*, 68(11), 2085–2094. https://doi.org/10.2337/db19-0233
- Zhou, D.-A., Xu, K., Zhao, X., Chen, Q., <u>Sang, F.</u>, Fan, D., Su, L., Zhang, Z., Ai, L., & Chen, Y. (2022). Spatial Distribution and Hierarchical Clustering of β-Amyloid and Glucose Metabolism in Alzheimer's Disease. *Frontiers in Aging Neuroscience*, 14, 788567. https://doi.org/10.3389/fnagi.2022.788567
- Yang, Y., Chen, Y., <u>Sang, F.</u>, Li, X. & Zhang, Z. Successful or Pathological Cognitive Aging? Converging into A "Frontal Preservation, Temporal Impairment (FPTI)". Science Bulletin, in proofreading.

#These authors contribute equally.

Working Papers

- **Sang, F.**, Chen, Y. & Zhang, Z. Charting brain structural aging in East-Asian and Caucasian [work in progress].
- <u>Sang, F.</u>, Li, Z., Chen, Y. & Zhang, Z. Brain structure reveals sex differences in language memory and spatial memory [work in progress].
- Li, Z., Wang, W., <u>Sang, F.</u>, Zhang Z., & Li, X. White matter changes underlie hypertension-related cognitive decline in older adults. *Journal* of *Hypertension*, under review.
- Li, Z., **Sang, F.**, Zhang, Z. & Li, X. Effect of the duration of hypertension on cognitive function and its neural mechanism [work in progress].
- Chen, Y., Niu, N., <u>Sang, F.</u>, Cui, R., Chen, K., Le, W., Han, Z., & Zhang, Z.
 Changes in cortical glucose metabolism throughout the course of a human life. *PLOS* Biology, under review.

OTHER RESEARCH EXPERIENCES

Poster

Sang, F., Chen, Y., Xia, J. & Zhang, Z. (2019). Brain Age, A New Biomarker. OHBM Annual Meeting.

Literature

Sang, F., He X., Dang, M. & Chen Y., Brain network organization and aging. Springer Nature Singapore Pte Ltd. In Press.

HONORS & AWARDS

Excellent Award of PRCV 2021 Alzheimer's Disease Classification Technology Challenge — Oct. 2021

First Class Scholarships for Postgraduates — Nov. 2020, Nov. 2021

Second Class Scholarships for Postgraduates — Nov. 2018

Postgraduate Freshmen Scholarship — Nov. 2017, Nov. 2019

SKILLS

Technical Skills: brain MRI imaging analysis (sMRI, rs-fMRI, dMRI), graph theory analysis (igraph, networkx, BCT, and GRETNA), machine & deep learning (sklearn, xgboost, PyTorch, mxnet, and mlr3), data visualization (ggplot2, Matplotlib, seaborn etc).

Programming Languages: Python, R, bash/zsh, MATLAB etc.