

PUBLICATIONS

Refereed Archival Journal Publications

1. Zhongya Qin, Zhentao She, Congping Chen, Wanjie Wu, Jackie K.Y. Lau, Nancy Y. Ip and **Jianan Y. Qu**, "Deep tissue multi-photon imaging using adaptive optics with direct focus sensing and shaping", *Nature Biotechnology*, (in press). doi: <https://doi.org/10.1101/2021.08.04.455159>
2. Wanjie Wu, Sicong He, Junqiang Wu, Congping Chen, Xuesong Li, Kai Liu and **Jianan Y. Qu**, "Long-term in vivo imaging of mouse spinal cord through an optically cleared intervertebral window", *Nature Communications*, V. 13, 1959 (2022). <https://doi.org/10.1038/s41467-022-29496-x>
3. Wanjie Wu, Xuesong Li., **Janan Qu**, and **Sicong He**, "in vivo Imaging of Biological Tissues with Combined Two-Photon Fluorescence and Stimulated Raman Scattering Microscopy", *J. Vis. Exp. (JoVE)* (178), e63411, <https://dx.doi.org/10.3791/63411> (2021)
4. Congping Chen, Zhentao She, Peng Tang, Zhongya Qin, Jufang He and **Jianan Y. Qu**, "Study of neurovascular coupling by using mesoscopic and microscopic imaging", *iScience*, V. 24, 10, 22 October 2021, 103176 <https://doi.org/10.1016/j.isci.2021.103176>
5. Lidan Zeng, Xuesong Li, Christopher B. Preusch, Gary J. He, Ningyi Xu, Tom H. Cheung, Jianan Qu and Ho Yi Mak, "Nuclear receptors NHR-49 and NHR-79 promote peroxisome proliferation to compensate for aldehyde dehydrogenase deficiency in *C. elegans*", *PLoS Genetics*, 17(7): e1009635. (2021) <https://doi.org/10.1371/journal.pgen.1009635>
6. Congping Chen, Zhongya Qin, Sicong He, Shaojun Liu, Shun-Fat Lau, Wanjie Wu, Dan Zhu, Nancy Y. Ip and **Jianan Y. Qu**, "High-resolution two-photon transcranial imaging of brain using direct wavefront sensing", *Photonics Research*, Vol. 9, Issue 6, pp. 1144-1156 (2021) <https://doi.org/10.1364/PRJ.420220>
7. Ye Wang, Wing-Yu Fu, Kit Cheung, Kwok-Wang Hung, Congping Chen, Hongyan Geng, Wing-Ho Yung, Jianan Y. Qu, Amy K. Y. Fu and Nancy Y. Ip, "Astrocyte-secreted IL-33 mediates homeostatic synaptic plasticity in the adult hippocampus", *Proceedings of the National Academy of Sciences of the United States of America*, V.118, (2021), <https://doi.org/10.1073/pnas.2020810118>
8. Zhongya Qin, Congping Chen, Sicong He*, Ye Wang, Kam Fai Tam, **Nancy Y. Ip** and **Jianan Y. Qu**, "Adaptive optics two-photon endomicroscopy enables deep brain imaging at synaptic resolution over large volumes", *Science Advances*, 30 Sep 2020: Vol. 6, no. 40, eabc6521 DOI: 10.1126/sciadv.abc6521
9. Sicong He*, Jin Xu, **Jianan Y. Qu** and **Zilong Wen**, "Lightening the way of hematopoiesis: Infrared laser-mediated lineage tracing with high spatial-temporal resolution", *Experimental Hematology*, V, 3-7 (2020)
10. Miao Liu, Sicong He*, Lixin Cheng, Jianan Qu and **Jiang Xia**, "Phase-Separated Multienzyme Biosynthesis", *Biomacromolecules* V.21, 6, 2391–2399 (2020)
11. Zhongya Qin, Sicong He*, Chao Yang, Jasmine Sum-Yee Yung, Congping Chen, Christopher Kai-Shun Leung, Kai Liu and **Jianan Y. Qu**, "Adaptive optics two-photon microscopy enables near-diffraction-limited and functional retinal imaging in vivo", *Light: Science & Applications*, (2020)9:79, <https://doi.org/10.1038/s41377-020-0317-9> PDF
12. Shun-Fat Lau, Congping Chen, Wing-Yu Fu, Jianan Y. Qu, Tom H. Cheung, Amy K.Y. Fu, **Nancy Y. Ip**, "IL-33-PU.1 Transcriptome Reprogramming Drives Functional State Transition and Clearance Activity of Microglia in Alzheimer's Disease", *Cell Reports*, V.31, 107530 (2020)
13. Sicong He*, Ye Tian, Shachuan Feng, Yi Wu, Xinwei Shen, Kani Chen, Yingzhu He, Qiqi Sun, Xuesong Li, Jin Xu, **Zilong Wen**, **Jianan Y. Qu**, "In vivo single-cell lineage tracing in zebrafish using high-resolution infrared laser-mediated gene induction microscopy", *eLife* 2020;9:e52024, DOI: 10.7554/eLife.52024
14. Sicong He*, Xiuqing Wei, Zhongya Qin, Congping Chen, Zhenguo Wu and **Jianan Y. Qu**, "In vivo study of metabolic dynamics and heterogeneity in brown and beige fat by label-free multiphoton redox and fluorescence lifetime microscopy", *Journal of Biophotonics*, 2019;e201960057. <https://doi.org/10.1002/jbio.201960057>
15. Wei Kang, Tian Ma, Min Liu, Jiale Qu, Zhenjun Liu, Huawei Zhang, Bin Shi, Shuai Fu, Juncai Ma, Louis Tung Faat Lai, Sicong He*, Jianan Qu, Shannon Wing-Ngor Au, Byung Ho Kang, Wilson Chun Yu Lau, Zixin Deng, **Jiang Xia** & **Tiangang Liu**, "Modular enzyme assembly for enhanced cascade biocatalysis and metabolic flux", *Nature Communications*, (2019) 10:4248
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19. Zhongya Qin, Qiqi Sun, Yue Lin, Sicong He, Xuesong Li, Congping Chen, Wanjie Wu, Yi Luo and **Jianan Y. Qu**, "New fluorescent compounds produced by femtosecond laser surgery in biological tissues: the mechanisms", *Biomedical Optics Express*, Vol. 9, No. 7, 3374-90 (2018)
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21. Sicong He*, Jiahao Chen, Yunyun Jiang, Yi Wu, Lu Zhu, Wan Jin, Changlong Zhao, Tao Yu, Tienan Wang, Shuting Wu, Xi Lin, Jianan Y Qu, Zilong Wen, Wenqing Zhang, **Jin Xu**, "Adult zebrafish Langerhans cells arise from hematopoietic stem/progenitor cells", *eLife*, DOI: <https://doi.org/10.7554/eLife.36131.001> (2018)
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26. Ye Tian, Jin Xu, Shachuan Feng, Sicong He, Shizheng Zhao, Lu Zhu, Wan Jin, Yimei Dai, Lingfei Luo, Jianan Y. Qu, and Zilong Wen1, "The first wave of T lymphopoiesis in zebrafish arises from aorta endothelium independent of hematopoietic stem cells", *Journal of Experimental Medicine*, Vol. 214, No.11, 3347-3360 (2017)
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