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Sep 2006 – Jun 2010 B.S., Biology, Minzu University of China

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Scientific career:

2015 – 2017: Peking University Shenzhen Graduate School Postdoctoral Researcher
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Publications

1. **L. Ma,** Julian Day-Cooney, Omar Pedro Jaidar Benavides, Michael A. Muniak, Maozhen Qin, Jun B. Ding, Tianyi Mao, and Haining Zhong. Locomotion activates PKA in both direct and indirect pathway striatal projection neurons. ***Nature*****.** 2022 Nov;611(7937):762-768. https://www.nature.com/articles/s41586-022-05407-4

2. **L. Ma*,** B. C. Jongbloets*, W. H. Xiong*, J. B. Melander, M. Qin, T. J. Lameyer, M. F. Harrison, B. V. Zemelman, T. Mao and H. Zhong (2018). A Highly Sensitive A-Kinase Activity Reporter for Imaging Neuromodulatory Events in Awake Mice. ***Neuron*** 99(4): 665-679 e665. https://www.sciencedirect.com/science/article/pii/S0896627318305944

3. Li, W*., **L. Ma***, G. Yang and W. B. Gan (2017). "REM sleep selectively prunes and maintains new synapses in development and learning." ***Nature Neuroscience*** 20(3): 427-437. (Co-first author) https://www.nature.com/articles/nn.4479

4. **L. Ma***, Q. Qiao*, J. W. Tsai, G. Yang, W. Li and W. B. Gan (2016). "Experience-dependent plasticity of dendritic spines of layer 2/3 pyramidal neurons in the mouse cortex." ***Developmental Neurobiology*** 76(3): 277-286.

5. B. C. Jongbloets*, **L. Ma***, T. Mao and H. Zhong (2019). Visualizing Protein Kinase A Activity In Head-Fixed Behaving Mice Using In Vivo Two-Photon Fluorescence Lifetime Imaging Microscopy. ***J. Vis. Exp.*** (148), e59526, doi:10.3791/59526 (2019). (Co-first author).

6. **L. Ma,** BC Jongbloets, WH Xiong, H Zhong, T Mao (2019). Imaging neuromodulatory signaling events at single cell resolution in behaving animal. ***Microscopy and Microanalysis*** 25 (S2), 1130-1131

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8. Yang, G., C. S. Lai, J. Cichon, **L. Ma**, W. Li and W. B. Gan (2014). "Sleep promotes branch-specific formation of dendritic spines after learning." ***Science*** 344(6188): 1173-1178.

9. Q Qiao, C Wu, **L. Ma**, H Zhang, M Li, X Wu, WB Gan. Motor learning-induced new dendritic spines are preferentially involved in the learned task than existing spines. ***Cell Reports***. 2022 Aug 16;40 (7), 111229

10. Zhong H, Ceballos CC, Massengill CI, Muniak MA, **L. Ma**, Qin M, Petrie SK, Mao T. High-fidelity, efficient, and reversible labeling of endogenous proteins using CRISPR-based designer exon insertion. ***eLife***. 2021 Jun 8;10.

11. Bai Y, Li M, Zhou Y, **L. Ma**, Qiao Q, Hu W, Li W, Wills ZP, Gan WB. Abnormal dendritic calcium activity and synaptic depotentiation occur early in a mouse model of Alzheimer's disease. ***Molecular Neurodegeneration*****.** 2017 Nov 14;12(1):86.