

## **Chen Hong Zhang**

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### **Education:**

2007-2011: PhD, State Key Laboratory of Microbial Metabolism, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University. (*Shanghai Excellent Doctoral Dissertation of 2012*)

2005-2007: Master degree candidate, State Key Laboratory of Microbial Metabolism, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University

2001-2005: Bachelor, Bio-technology, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University

### **Positions:**

June 2019- Now. Professor, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University

January 2019-May 2019: Associate Professor, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University

October 2013-December 2016: Assistant Professor, School of Life Sciences and Biotechnology, Shanghai Jiao Tong University

June 2011- September 2013: Postdoctoral fellow, Functionality of the Intestinal Ecosystem (FIInE), French Institute of Agronomic Research (INRA), Jouy-en-Josas, France.

### **Main research interests:**

- The assessment of the role of the intestinal microbiota in health, obesity-related chronic diseases and ageing
- The functional role of foods
- Mechanistic investigation of the molecular cross-talk between intestinal bacteria and host cells
- Providing a better understanding of the intestinal ecosystem in order to support therapeutic choices in the medical area, as well as health claims for functional foods

### **Publications list:**

1. Liping Zhao<sup>\*,</sup>, Feng Zhang<sup>#</sup>, Xiaoying Ding<sup>#</sup>, Guojun Wu<sup>#</sup>, Yan Y. Lam<sup>#</sup>, Xuejiao Wang, Huaqing Fu, Xinhe Xue, Chunhua Lu, Jilin Ma, Lihua Yu, Chengmei Xu, Zhongying Ren, Ying Xu, Songmei Xu, Hongli Shen, Xiuli Zhu, Yu Shi, Qingyun Shen, Weiping Dong, Rui Liu, Yunxia Ling, Yue Zeng, Xingpeng Wang, Qianpeng Zhang, Jing Wang, Linghua Wang,

- Yanqiu Wu, Benhua Zeng, Hong Wei, Menghui Zhang, Yongde Peng\*, **Chenhong Zhang\***, Gut bacteria selectively promoted by dietary fibers alleviate type 2 diabetes, *Science*. 2018, 359: 1151-1156.
2. Liying Zhang, Xinhe Xue, Rui Zhai, Xin Yang, Hui Li, Liping Zhao, **Chenhong Zhang\***, Timing of Calorie Restriction in Mice Impacts Host Metabolic Phenotype with Correlative Changes in Gut Microbiota, *mSystems*. 2019,4(6): e00348-19
  3. Tao Liu, Yanqiu Wu, Linghua Wang, Xiaoyan Pang, Liping Zhao, Huijuan Yuan\*, **Chenhong Zhang\***, A More Robust Gut Microbiota in Calorie-Restricted Mice Is Associated with Attenuated Intestinal Injury Caused by the Chemotherapy Drug Cyclophosphamide, *mBio*. 2019,10(2): e02903-18
  4. Pan F, Zhang L, Li M, Hu Y, Zeng B, Yuan H, Zhao L, **Zhang C\***. Predominant gut *Lactobacillus murinus* strain mediates anti-inflammaging effects in calorie-restricted mice. *Microbiome*.2018;6(1):54.
  5. Wang R, Li H, Yang X, Xue X, Deng L, Shen J, Zhang M, Zhao L, **Zhang C\***. Genetically Obese Human Gut Microbiota Induces Liver Steatosis in Germ-Free Mice Fed on Normal Diet. *Front Microbiol*. 2018;9:1602.
  6. Liu R.#, **Zhang C.H.#**, Shi Y., Zhang F., Li L.X., Wang X. J., Ling Y.X., Fu H.Q., Dong W.P., Shen J., Reeves A., Greenberg A.S., Zhao L.P., Peng Y.D.\* , Ding X.Y.\* , Dysbiosis of Gut Microbiota Associated with Clinical Parameters in Polycystic Ovary Syndrome. *Front Microbiol*, 2017, 8:324
  7. Bridgewater L.C.#, **Zhang C.H.#**, Wu Y.Q., Hu W.W., Zhang Q. P., Wang J., Li S.T., Zhao L.P.\* , Gender-based differences in host behavior and gut microbiota composition in response to high fat diet and stress in a mouse model. *Sci Rep*, 2017, 7:10776
  8. Yao X.M#, **Zhang C.H.#**, Xing X.#, Xue G., Zhang Q.P., Pan F.W., Wu G.J., Hu Y.X., Guo Q.D., Lu A.L., Zhang X.M., Zhou R.B., Tian Z.G., Zeng B.H., Wei H., Strober W., Zhao L.P.\* , Meng G.X.\* , Remodelling of the gut microbiota by hyperactive NLRP3 induces regulatory T cells to maintain homeostasis. *Nat Commun*, 8:1896
  9. Li M., Wu Y.Q., Hu Y.X., Zhao L.P., **Zhang C.H.\***, Initial gut microbiota structure affects sensitivity to DSS-induced colitis in a mouse model, *Sci China Life Sci* 60, doi: 10.1007/s11427-017-9097-0
  10. Q. Zhang, Y. Wu, J. Wang, G. Wu, W. Long, Z. Xue, L. Wang, X. Zhang, X. Pang, Y. Zhao, L. Zhao, **C. Zhang**. Accelerated dysbiosis of gut microbiota during aggravation of DSS-induced colitis by a butyrate- producing bacterium. *Scientific reports* 6:27572
  11. **C. Zhang**, L. Zhao. Strain-level dissection of the contribution of the gut microbiome to human metabolic disease. *Genome Medicine* (2016) 8:41
  12. **C. Zhang**, M. Derrien, F. Levenez, et.al. Ecological robustness of the gut microbiota in response to ingestion of transient food-borne microbes. *ISME J*. 10(9)2235-45
  13. **C. Zhang**, H. Li, A. Yin, et.al., Dietary Modulation of Gut Microbiota Contributes to Alleviation of Both Genetic and Simple Obesity in Children. *EbioMedicien*. 2 (2015) 968–984

14. **C. Zhang**, S. Li, L. Yang, P. Hang, W. Li, S. Wang, G. Zhao, M. Zhang, X. Pang, Z. Yan, Y. Liu, L. Zhao. Structural modulation of gut microbiota in life-long calorie-restricted mice. *Nature communications*. 2013, **4**: 2163
15. **C. Zhang**, M. Zhang, X. Pang, Y. Zhao, L. Wang, L. Zhao. Structural resilience of the gut microbiota in adult mice under high-fat dietary perturbations. *ISME J*. 2012 Oct, **6**(10):1848-57
16. **C. Zhang**, M. Zhang, S. Wang, R. Han, Y. Cao, W. Hua, Y. Mao, X. Zhang, X. Pang, C. Wei, G. Zhao, Y. Chen, L. Zhao. Interactions between gut microbiota, host genetics and diet relevant to development of metabolic syndromes in mice. *ISME J*. 2010 Feb, **4**(2):232-41
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19. J. Wang, H. Tang, **C. Zhang**, Y. Zhao, M. Derrien, E. Rocher, J. H. Vlieg, K. Strissel, L. Zhao, M. Obin, J. Shen. Modulation of gut microbiota during probiotic-mediated attenuation of metabolic syndrome in high fat diet-fed mice. *ISME J*. (2015) **9**, 1-15
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