

Curriculum Vitae

Yang Chen, Ph.D.

Research Assistant Professor
Bioinformatics Division & Center for Synthetic and Systems
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Research Fields

3DGenomics, Bioinformatics, Regeneration, Cancer Research

Education

Sep. 2005 – Jun. 2008, Peking Union Medical College, Ph.D.

Sep. 2002 – Jun. 2005, Peking Union Medical College, M.S.

Sep. 1999 – Jun. 2001, Department of Computer Science, Sun Yat-Sen University, Minor

Sep. 1998 – Jun. 2002, Department of Medicine, Sun Yat-Sen University, B.S.

Professional Experiences

- Jul. 2011- present, Research Associate, Bioinformatics Division/Center for Synthetic & Systems Biology, TNLIST, Tsinghua University.
- Jul. 2008 – Jun. 2011, Postdoctoral Research Fellow, Bioinformatics Division/Center for Synthetic & Systems Biology, TNLIST/Department of Automation, Tsinghua University

Research Grants

- National Nature Science Foundation of China No. 31671384, 2017-2020, “Advanced methodology development for 4D genome characterization and analysis”, 620K RMB, (with PI Michael Q Zhang)
- National Nature Science Foundation of China No.91519326, 2016, “Deciphering DNA methylation reprogramming in induced human primordial germ cells derived from human embryonic stem cells”, 894K RMB, (with PI Michael Q Zhang)
- National Nature Science Foundation of China No.31301044, 2014-2016, “Snail induced chromatin long-range interaction and transcription repression in the epithelial-mesenchymal transition of hepatoma carcinoma cell”, 250K RMB, (PI)
- National Basic Research Program of China No.2012CB316503, 2012-2016, “Study of next

generation sequencing data in cancer and cellular differentiation”, 7.25M RMB, (with PI Michael Q Zhang)

- National High Technology Research and Development Program of China No. 2012AA020401, 2012-2015, “Methods and techniques for bioinformatics and computational systems biology”, 3.53M RMB, (with PI Rui Jiang)
- China Postdoctoral Science Foundation No. 67458, 2009-2010, “Construction and analysis of vascular endothelial cell gene regulatory network under inflammation”, 50K, (PI)

Academic Services

- Committee member, Clinical trial and big data, China Quality Association for Pharmaceuticals, 2015-2020
- Reviewer, Oncology Reports 2016, Frontiers of Computer Science 2016, IEEE/ACM Transactions on Computational Biology and Bioinformatics 2015

Publications (# Co-first author, * Corresponding author)

2016

17. GP Li, **Y. Chen**, M.P. Snyder* and M.Q. Zhang* (2016). "ChIA-PET2: a versatile and flexible pipeline for ChIA-PET data analysis." Nucleic Acids Research. Sep 12. pii: gkw809.

16. Chao He#, Guipeng Li#, Diekidel M. Nadhir, **Y. Chen***, X.W. Wang* and M. Q. Zhang* (2016). "Advances in computational ChIA-PET data analysis." Quantitative Biology 4(3): 217–225. Covered.

15. J.Y. Wang, F.L. Chen, L.W. Liu, C.X. Qi, B.J. Wang, X.J. Yan, C.Y. Huang, W. Hou, Michael Q. Zhang, **Y. Chen*** and Y.N. Du* (2016). "Engineering EMT using 3D Micro-scaffold to Promote Hepatic Functions for Drug Hepatotoxicity Evaluation." Biomaterials 91:11-22.

2015

14. Djekidel, M. N., Z. Liang, Q. Wang, Z. Hu, G. Li, **Y. Chen*** and M. Q. Zhang* (2015). "3CPET: finding co-factor complexes from ChIA-PET data using a hierarchical Dirichlet process." Genome Biology 16(1): 288.

13. Ma, Y., C. Zhang, X. B. Gao, H. Y. Luo, **Y. Chen**, H. H. Li, X. Ma* and C. L. Lu* (2015). "Folic acid protects against arsenic-mediated embryo toxicity by up-regulating the expression of Dvr1." Scientific Reports 5: 16093.

2014

12. Wu, M., H. Wang, J. Shi, J. Sun, Z. Duan, Y. Li, J. Li, N. Hu, Y. Wei, **Y. Chen*** and Y. Hu* (2014). "Gene expression profiles identify both MyD88-independent and MyD88-dependent pathways involved in the maturation of dendritic cells mediated by heparan sulfate: a novel adjuvant." Human Vaccines & Immunotherapeutics 10(12): 3711-3721.

11. Gu, J. #, **Y. Chen**[#], H. Huang, L. Yin, Z. Xie and M. Q. Zhang* (2014). "Gene module based regulator inference identifying miR-139 as a tumor suppressor in colorectal cancer." *Molecular Biosystems* 10(12): 3249-3254.

10. Sheng, M., Y. Zhong, **Y. Chen**, J. Du, X. Ju, C. Zhao, G. Zhang, L. Zhang, K. Liu, N. Yang, P. Xie, D. Li, M. Q. Zhang and C. Jiang* (2014). "Hsa-miR-1246, hsa-miR-320a and hsa-miR-196b-5p inhibitors can reduce the cytotoxicity of Ebola virus glycoprotein in vitro." *Science China-Life Sciences* 57(10): 959-972. Covered.

9. Feng, Y., A. Dorhoi, H. J. Mollenkopf, H. Yin, Z. Dong, L. Mao, J. Zhou, A. Bi, S. Weber, J. Maertzdorf, G. **Y. Chen** and S. H. Kaufmann* (2014). "Platelets direct monocyte differentiation into epithelioid-like multinucleated giant foam cells with suppressive capacity upon mycobacterial stimulation." *International Journal of Infectious Diseases* 210(11): 1700-1710.

2013

8. Chao, T. F., H. H. Xiong, W. Liu, **Y. Chen** and J. X. Zhang* (2013). "MiR-21 mediates the radiation resistance of glioblastoma cells by regulating PDCD4 and hMSH2." *Journal of Huazhong University of Science and Technology* 33(4): 525-529.

2012

7. Jiang, B[#], X. Liang[#], **Y. Chen**^{*}, T. Ma, L. Liu, J. Li, R. Jiang, T. Chen, X. Zhang* and S. Li* (2012). "Integrating next-generation sequencing and traditional tongue diagnosis to determine tongue coating microbiome." *Scientific Reports* 2: 936.

6. **Y. Chen**[#], J. Gu[#], D. Li and S. Li* (2012). "Time-course network analysis reveals TNF-alpha can promote G1/S transition of cell cycle in vascular endothelial cells." *Bioinformatics* 28(1): 1-4.

2010

5. Gu, J., **Y. Chen**, S. Li* and Y. Li* (2010). "Identification of responsive gene modules by network-based gene clustering and extending: application to inflammation and angiogenesis." *BMC Systems Biology* 4: 47.

2009

4. P. Du[#], **Y. Chen**[#], Yanda Li*. "Computational evidence of A-to-I RNA editing in nucleus transcriptome of Arabidopsis thaliana." *Frontiers of Electrical and Electronic Engineering in China*, 2009, 4(4):349-361.

3. Wen, J., Q. Xia, C. Wang, W. Liu, **Y. Chen**, J. Gao, Y. Gong, B. Yin, Y. Ke, B. Qiang, J. Yuan and X. Peng* (2009). "Dok-5 is involved in cardiomyocyte differentiation through PKB/FOXO3a pathway." *Journal of Molecular and Cellular Cardiology* 47(6): 761-769.

2. Zhang, Y., T. Chao, R. Li, W. Liu, **Y. Chen**, X. Yan, Y. Gong, B. Yin, W. Liu, B. Qiang, J. Zhao, J. Yuan and X. Peng (2009). "MicroRNA-128 inhibits glioma cells proliferation by targeting transcription factor E2F3a." *Journal of Molecular Medicine* 87(1): 43-51.

2008

I. Y. Chen, W. Liu, T. Chao, Y. Zhang, X. Yan, Y. Gong, B. Qiang, J. Yuan, M. Sun^{*} and X. Peng^{*} (2008). "MicroRNA-21 down-regulates the expression of tumor suppressor PDCD4 in human glioblastoma cell T98G." *Cancer Letters* 272(2): 197-205.