

## CURRICULUM VITAE

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# Xiao-Ou Zhang

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### POSITIONS AND EMPLOYMENT:

09/2016- Post Doctoral Associate with Prof. Zhiping Weng, University of Massachusetts Medical School, Worcester, MA, USA

### EDUCATION:

- 09/2011-06/2016 **Ph.D.**, Computational Biology (with honor)  
CAS-MPG Partner Institute for Computational Biology,  
Shanghai Institutes for Biological Sciences,  
Chinese Academy of Sciences, P.R. China
- Supervisor: Prof. Li Yang
  - Non-polyadenylated long noncoding RNAs (e.g. circular RNAs) and their regulatory network
- 02/2009-06/2011 **B.S.**, Computer Science and Technology  
School of Computer Science and Technology,  
Huazhong University of Science and Technology, P.R. China
- 09/2007-06/2011 **B.S.**, Bioengineering (with honor)  
College of Life Science and Technology,  
Huazhong Agricultural University, P.R. China

### AWARDS & HONORS:

- 2015 Ray Wu Prize, Ray Wu Memorial Fund
- 2015 CAS President Award (Special Prize), Chinese Academy of Sciences

2015	UCAS-BHPB Scholarship, University of Chinese Academy of Sciences & BHP Billiton
2014	National Scholarship for Outstanding Graduate Student, Ministry of Education of the People's Republic of China
2014	Pacemaker to Merit Student, University of Chinese Academy of Sciences

## PEER-REVIEWED PUBLICATIONS:

(●●Most relevant; \* co-first authors; † corresponding authors)

1. **Zhang XO\***, Dong R\*, Zhang Y\*, Zhang JL, Luo Z, Zhang J, Chen LL† and Yang L†. Diverse alternative back-splicing and alternative splicing landscape of circular RNAs. *Genome Res*, 2016, 26:1277-1287. **(Highly Accessed) ●●**
2. Dong R, **Zhang XO**, Zhang Y, Ma XK, Chen LL, Yang L†. CircRNA-derived pseudogenes. *Cell Res*. 2016, 26:747-750.
3. Chen T\*, Xiang JF\*, Zhu S\*, Chen S, Yin QF, **Zhang XO**, Zhang J, Feng H, Dong R, Li XJ, Yang L†, Chen LL†. ADAR1 is required for differentiation and neural induction by regulating microRNA processing in a catalytically independent manner. *Cell Res*. 2015, 25:459-476.
4. Wang D\*, Cai C\*, Dong X, Yu QC, **Zhang XO**, Yang L, Zeng YA†. Identification of multipotent mammary stem cells by protein C receptor expression. *Nature*. 2015, 517:81-84.
5. **Zhang XO\***, Wang HB\*, Zhang Y, Lu X, Chen LL†, Yang L†. Complementary sequence-mediated exon circularization. *Cell*. 2014, 159:134-147. **(Issue Highlight) ●●**
  - Editorial by: Vicens Q and Westhof E. *Cell*. 2014, 159:13-14.
  - Research Highlight by: Burgess DJ. *Nat Rev Genet*. 2014, 15:707.
6. **Zhang XO**, Yin QF, Chen LL, Yang L†. Gene expression profiling of non-polyadenylated RNA-seq across species. *Genomics Data*. 2014, 2:237-241.
7. **Zhang XO\***, Yin QF\*, Wang HB, Zhang Y, Chen T, Zheng P, Lu X, Chen LL†, Yang L†. Species-specific alternative splicing leads to unique expression of sno-lncRNAs. *BMC Genomics*. 2014, 15:287. **(Highly Accessed) ●●**
8. Xiang JF, Yin QF, Chen T, Zhang Y, **Zhang XO**, Wu Z, Zhang S, Wang HB, Ge J, Lu X, Yang L, Chen LL†. Human colorectal cancer-specific CCAT1-L lncRNA regulates long-range chromatin interactions at the MYC locus. *Cell Res*. 2014, 24:513-531. **(Cover Article and Issue Highlight)**

9. Zhang Y\*, **Zhang XO\***, Chen T, Xiang JF, Yin QF, Xing YH, Zhu S, Yang L†, Chen LL†. Circular intronic long noncoding RNAs. *Mol Cell*. 2013, 51:792-806. **(Issue Highlight) ••**
  - Editorial by: Bolisetty MT and Graveley BR. *Mol Cell*. 2013, 51:705-706.
  - Research Highlight by: *Nature*. 2013, 501:464.
  - Research Highlight by: Reid T. *Nature China*. 2013, Epub. on October 2<sup>nd</sup> (doi:10.1038/nchina.2013.95).
10. Zhu S, **Zhang XO**, Yang L†. Panning for long noncoding RNAs. *Biomolecules*. 2013, 3:226-241. (Review)

#### **PATENTS:**

2015. Li Yang, Ling-Ling Chen, **Xiao-Ou Zhang**, Yang Zhang. *The construction and application of vectors for circular RNA expression*. Patent Application Number: 201510100793.9

2013. Ling-Ling Chen, Li Yang, Yang Zhang, **Xiao-Ou Zhang**. *Identification and application of circular intronic long noncoding RNAs and their essential sequences*. Patent Application Number: 201310398809.X

#### **PROFESSIONAL EXPERIENCES:**

- 09/2011-06/2016    **CAS-MPG Partner Institute for Computational Biology**
- Research Assistant with Prof. Li Yang
  - Genome-wide identification and characterization of human circular intronic RNAs
  - Evolutionary analysis of sno-lncRNAs
  - Biogenesis mechanism of exon circularization and alternative circularization in human
  - Alternative splicing characterization of circRNAs
  - Identification of circRNA-derived pseudogenes in human
  - Collaborative projects: 4C and ChIP-seq analysis to study the chromatin interaction between CCAT1-L locus and cMYC locus, iCLIP analysis to characterize the RNA binding sites of ADAR1 (with Prof. Ling-Ling Chen Lab at SIBCB, SIBS, CAS); Differential gene expression analysis using RNA-seq and microarray to find the key biomarker of multipotent mammary stem cell population (with Prof. Yi Aial Zeng Lab at SIBCB, SIBS, CAS)

09/2010-06/2011    **Center for Bioinformatics, Huazhong Agricultural University**

- Research Assistant with Prof. Hong-Yu Zhang
- Chemoinformatic analysis of C-H $\cdots\pi$  interactions in protein-ligand complexes

#### **INVITED TALKS & CONFERENCE PRESENTATIONS:**

2015. *Complementary sequence-mediated exon circularization*. IBW 2015. July 9-10. Harbin, China. (selected talk)

2015. *Complementary sequence-mediated exon circularization*. RNA 2015. May 26-31. Madison, United States. (poster)

2014. *Species-specific alternative splicing leads to unique expression of sno-lncRNAs*. 2014 CSHA RNA Biology. November 10-14. Suzhou, China. (poster)

2014. *Complementary sequence-mediated exon circularization*. CAS-MPG Partner Institute for Computational Biology Institute Seminar. September 24. Shanghai, China. (selected talk)

2014. *Species-specific alternative splicing leads to unique expression of sno-lncRNAs*. 2014 CAS-MPG Partner Institute for Computational Biology Scientific Exchange Meeting. June 5-6. Shanghai, China. (selected talk)

2014. *Species-specific alternative splicing leads to unique expression of sno-lncRNAs*. The 8<sup>th</sup> Biennial Meeting of Chinese RNA Society. April 12-13. Hefei, China. (Poster Award)

2013. *Circular intronic long noncoding RNAs*. Otto Warburg International Summer School and Research Symposium 2013. August 19-26. Berlin, Germany. (poster)

2013. *Pan for intron-derived long noncoding RNAs from non-polyadenylated RNA-seq*. 2013 CAS-MPG Partner Institute for Computational Biology Scientific Exchange Meeting. June 6-7. Shanghai, China. (Poster Award)