



遗传与发育协同创新中心

遗传工程国家重点实验室

生物化学系

Novel microRNA Mechanisms and Neuronal Cell Fate Decision



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地点：江湾新校区生科楼F区报告厅

Education

1982年毕业于武汉大学病毒学学系

1988年获凯西保留地（凯斯西储）大学生物化学博士学位

1992年获哈佛大学分子生物学博士后

Research Interests

RNA processing and regulation; microRNA biogenesis and functions; Transcription and mRNA processing coupling; Functional genomics; Genetics and epigenetics regulation of gene expression

Recent Representative Publications

1. Zhang, X., Zuo, X., ..., and **Fu, X-D.** (2014). microRNA directly enhances mitochondrial translation during muscle differentiation. *Cell* 158:607-619.
2. Ouyang, H., Xue, Y., ..., **Fu, X-D.***, Liu, Y.* , and Zhang, K.* (2014). WNT7A and PAX6 define corneal epithelium homeostasis and pathogenesis. *Nature* 511:358-361. (*co-corresponding authors)
3. Shao, C., Yang, B., ..., and **Fu, X-D.** (2014). Unique role and mechanism of the U2AF heterodimer in defining 3' splice sites and regulating alternative splicing in the human genome. *Nature Struct Mol Biol* 21:997-1005.
4. Ji, X., Zhou, Y., ..., and **Fu, X-D.** (2013). SR proteins collaborate with 7SK and promoter-associated nascent RNA to release paused polymerase. *Cell* 153:855-868.
5. Pandit, S., Yu, Z., ..., and **Fu, X-D.** (2013). Genome-wide analysis reveals SR protein cooperation and competition in regulated splicing. *Mol Cell* 50:223-235.
6. Xue, Y-C., Ouyang, K., ..., and **Fu, X-D.** (2013) Direct conversion of fibroblasts to neurons by reprogramming PTB-regulated microRNA circuits. *Cell* 152:82-96.
7. Zhou, Z-H., Qiu, J., ..., and **Fu, X-D.** (2012). The Akt-SRPK-SR axis constitutes a major pathway in transducing EGF signaling to regulate alternative splicing in the nucleus. *Mol Cell* 47:422-433
8. Xiao, R., Tang, P., ..., and **Fu, X-D.** (2012). Nuclear matrix factor hnRNP U/SAF-A exerts a global control of alternative splicing by regulating U2 snRNP maturation. *Mol Cell* 45:656-668.