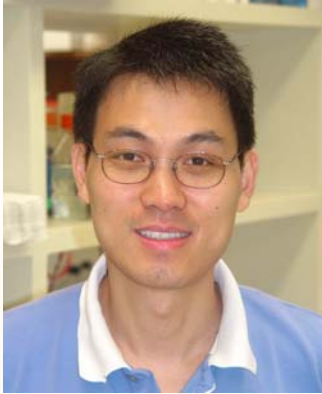




遗传与发育协同创新中心  
遗传工程国家重点实验室  
复旦大学生命学院生物化学系

# Reconstitution of Death Star, a RISCy business



**Prof. Qinghua Liu**  
**UT Southwestern Medical Center**

**时间：2015年2月3日（周二）上午10:00**

**地点：复旦大学江湾校区生科楼B303室**

## Education

1988-1992 Wuhan University B.S  
1994-2000 Baylor College of Medicine Ph.D

## Professional Positions

2001-2004 **Postdoctoral Fellow**  
Laboratory of Prof. Xiaodong Wang, HHMI/UT Southwestern Medical Center, Dallas, Texas  
2004-2010 **Assistant Professor**  
Department of Biochemistry, UT Southwestern Medical Center, Dallas, Texas  
2010-present **Associate Professor** (with tenure)  
Department of Biochemistry, UT Southwestern Medical Center, Dallas, Texas

## Research Interests

We integrate classical genetics, biochemistry, and biophysical approaches to investigate the biochemical and regulatory mechanisms of the RNA interference (RNAi) and microRNA (miRNA) pathways. We took a classical biochemical fractionation and reconstitution approach to identify a number of important components of the RNAi/miRNA pathways, including the *Drosophila* miRNA- (Dicer-1-Loqs), siRNA- (Dicer-2-R2D2) generating enzymes and C3PO.

## Recent Representative Publications

1. C. Liang, K. Xiong, K.E. Szulwuch, Y. Zhang, Z. Wang, J. Peng, M. Fu, P. Jing, H.I. Suzuki, **Q. Liu**. (2013) Sjogren Syndrome Antigen B (SSB)/La promotes global microRNA expression by binding microRNA precursors through stem-loop recognition. *J Biol Chem*, 288:723-36. PMID3537071
2. Y. Liu, H. Tan, H. Tian, C. Liang, S. Chen, **Q. Liu**. (2011) Autoantigen La promotes RNAi, antiviral response, and transposon silencing by facilitating multi-turnover RISC catalysis, *Mol Cell* 44:502-8. PMID3229097
3. X. Ye#, N. Huang#, Y. Liu, Z. Paroo, C. Huerta, P. Li, S. Chen, **Q. Liu\***, H. Zhang\* (2011) Structure of C3PO and mechanism of human RISC activation. *Nat Struct Mol Biol.* 18:650-657. PMID3109212 (#co-first authors, \*co- corresponding authors)
4. Z. Paroo, X. Ye, S. Chen, and **Q. Liu** (2009). Phosphorylation of the human micro-RNA generating complex mediates MAPK/Erk signaling. *Cell* 139:112-122. PMID2760040
5. Y. Liu, X. Ye, F. Jiang, C. Liang, D. Chen, J. Peng, L.N. Kinch, N.V. Grishin, and **Q. Liu** (2009). C3PO, an endoribonuclease that promotes RNAi by facilitating RISC activation. *Science*, 325: 750-53. PMID2855623