Curriculum Vitae

Tao Sheng, PhD student
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Contact Information

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Education

2014.08-now Ph.D student in Bioinformatics, University of Georgia
2010.09-2014.07 B.S., Biotechnology, Nankai University

Research Interests

- The general altered cell cycle events in tumor cells. One of the most important hallmarks of cancer is abnormal proliferation, which is highly related to cell cycle control system. However, up-to-date, there is no clear knowledge about how cell cycle goes and controls in tumor tissues
- Deciphering and predicting the real biological function alteration behind mutations. As it is well known that TP53 mutation is widely existed among all cancer patients, however, TP53 gene has multiple functions and surely different mutation sites or forms will result in different functional alterations. Thus, fully understanding the mutational patterns and utilizing it to predict the biological functions alteration would be a great benefit to guide clinical treatment

Academic Appointments

2015.1-now Research Assistant, Computational Systems Biology Lab, University of Georgia, Athens, GA
2014.8-2014.12 Rotation Fellowship, Integrated Life Science, University of Georgia, Athens, GA

Publications

1. Zhang C, **Sheng T**, Cao S, Issa-Boube S, Tang T, Zhu X, Dong N, Du W, Xu Y. Autophagy in Cancer Cells vs Cancer Tissues: two different stories. [Book] Targeting Autophagy in Cancer Therapy, ed. J. Yang. 2016: Springer.

Manuscripts in Preparation

1. Sun H, Zhang C, Dong N, **Tao S**, Xu Y. Fenton Reactions Are a Fundamental Driver of Cell Division in Cancer. Under review.
2. Zhang C, **Sheng T**, Cao S, Ma Q, Xu Y. A biclustering based method for prediction of gain or loss of function of somatic mutations. Ready for Submission.
3. Zhang C, Cao S, Chen X, **Sheng T**, Ma Q, Xu Y. A probabilistic model-based bi-clustering method for single-cell transcriptomic data analysis. Ready for Submission. (2016)
4. Zhang C, Yao F, Dong N, Du W, Tang T, Cao S, **Sheng T**, Chen X, Xu Y. A Pan-inflammatory and precancerous disease analysis reveals key biological characteristics in cancer risking chronic inflammatory disease types. Ready for Submission. (2016)

Academic Services

2015-now Reviewer, Mathematical Biosciences