

XIU HUANG

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EDUCATION

YALE UNIVERSITY

Expected May, 2016

Ph.D., *Program in Computational Biology and Bioinformatics*

New Haven, CT

- Thesis: Statistical modeling of gene expression and next generation sequencing data towards understanding and identifying cancer biomarkers
- Advisors: Prof. Hongyu Zhao

HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY (HUST) June, 2010

B.E., *Bioinformatics*

Wuhan, China

- Thesis: Analysis of massive protein mass spectrometry data and its application in human genome annotation.

RESEARCH EXPERIENCE

Yale Center for Statistical Genomics and Proteomics

Aug 2011 - Present

Research Assistant

New Haven, CT

- Statistical modeling of gene expression data to assess PHY906 as an adjuvant drug in treating cancer
- Statistical assessment of transcriptional profiles from paired normal samples of cancer patients to identify new biomarkers to better predict cancer survival
- Statistical method to call somatic mutations specifically designed for sequencing data of circulating tumor DNAs

Department of Pharmacology, Yale University School of Medicine

Aug 2012 - Present

Research Assistant

New Haven, CT

- Assess PHY906 as an adjuvant cancer treatment to induce gene expression changes in different tissues of genetically engineered mouse model and xenograft mouse models carrying colon cancer
- Assess PHY906 induced circulating DNAs mutation profile changes in clinical trials colon cancer patients

Shanghai Center for Bioinformation Technology

July 2009 - May 2010

Research Intern

Shanghai, China

- Collection of mass spectrometry protein data and construction of databases for the Chinese Government National 973 Project

TEACHING EXPERIENCE

- MCDB 261 Introduction to Dynamical Systems in Biology (Spring, 2015)
- CBB 752 Bioinformatics: Practical Application of Data Mining & Simulation (Spring, 2016)

HONORS AND AWARDS

- Fellowship from the CSC-Yale World Scholars Program (YALE), 2010-2012
- Title of Outstanding Graduate from university (HUST), 2010
- Title of National Youth Ambassador (Jiangsu Province), 2009
- Scholarship for Self-reliance from university (HUST), 2009

- Title of Outstanding Student from university (HUST), 2007-2008
- Scholarship for Outstanding Study Performance from department (HUST), 2007-2008
- Scholarship for Outstanding Student Leader from department (HUST), 2006-2007

TECHNICAL STRENGTHS

Computer Languages	Proficient in R, C/C++, Perl, Unix shell script; familiar with Matlab, Python and Java
Databases	MySQL
Tools	Git, Vim, Emacs, RMarkdown
Language	English (fluent) and Chinese (native)

PUBLICATIONS

6. **Xiu Huang**, David Stern, Hongyu Zhao. 2016. Transcriptional Profiles from Paired Normal Samples Offer Complementary Information on Cancer Patient Survival – Evidence from TCGA Pan-Cancer Data. To appear in the *Scientific Reports*.
5. Lam Wing, Zaoli Jiang, Fulan Guan, **Xiu Huang**, Rong Hu, Jing Wang, Scott Bussom, et al. 2015. PHY906(KD018), an Adjuvant Based on a 1800-Year-Old Chinese Medicine, Enhanced the Anti-Tumor Activity of Sorafenib by Changing the Tumor Microenvironment. *Scientific Reports* 5: 9384.
4. Zhang Jing, Xiang Li, Cong Li, Zhichao Lian, **Xiu Huang**, Guocheng Zhong, Dajiang Zhu, et al. 2014. Inferring Functional Interaction and Transition Patterns via Dynamic Bayesian Variable Partition Models. *Human Brain Mapping* 35 (7): 331431.
3. Sun Jiehuan, Xintao Hu, **Xiu Huang**, Yang Liu, Kaiming Li, Xiang Li, Junwei Han, Lei Guo, Tianming Liu, and Jing Zhang. 2012. Inferring Consistent Functional Interaction Patterns From Natural Stimulus FMRI Data. *NeuroImage*, March.
2. Xing Xiao-Bin, Qing-Run Li, Han Sun, Xing Fu, Fei Zhan, **Xiu Huang**, Jing Li, et al. 2011. The Discovery of Novel Protein-Coding Features in Mouse Genome Based on Mass Spectrometry Data. *Genomics* 98 (5): 34351.
1. Jiang Xiao, Wu Yuan-xi, Liu Xing-fu, **Xiu Huang**, and Yuan Jiao. 2009. Designing Open Experiments, Improving Comprehensive Abilities. *Experiment Science & Technology* 7 (2).

MANUSCRIPTS

2. **Xiu Huang**, Wing Lam, Jiehuan Sun, Yung-Chi Cheng, Hongyu Zhao. 2016. Somatic Mutation Calling for Sequencing Data of Circulating Tumor DNAs.
1. Jiehuan Sun, Jose Herazo-Maya, **Xiu Huang**, Naftali Kaminski, Hongyu Zhao. 2016. Distance-correlation based Gene Set Analysis in Longitudinal Studies. Submitted to the *Bioinformatics*.

PROFESSIONAL ACTIVITY

Reviewer for peer-reviewed journals

- Including *BMC Bioinformatics*, *BioMed Research International*, and *Human Genomics*

Academic presentations

- **Xiu Huang**, Ena Wang, Scott Bussom, Wing Lam, Zaoli Jiang, Francesco M Marincola, Yung-Chi Cheng and Hongyu Zhao. Individual Based Pathway Analysis (IBPA) and Its Application in Assessing PHY906s Adjuvant Anti-cancer Effect with CPT-11. *12th Meeting of Consortium for Globalization of Chinese Medicine (CGCM)*, 2013. Graz, Austria