

Ting-You Wang

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Education

2013–present **PhD. Candidate, Bioinformatics and Genomics**, The University of Hong Kong, Hong Kong SAR, China.

2008–2011 MSc. Bioinformatics, China Agricultural University, Beijing, China.

2003–2007 **BEng. Mechanical Design, Manufacturing and Automation**, China Agricultural University, Beijing, China.

MSc thesis

title A predicted protein-protein interaction network of the filamentous fungus Neurospora crassa

supervisor Prof. Ziding Zhang Ph. D.

description Using two well-established bioinformatics methods (the interolog method and the domain interaction-based method), the protein-protein interaction(PPI) network of Neurospora crassa was predicted. The established PPI network has provided clues to further decipher the molecular mechanism of circadian rhythmicity. For instance, we found that clock-controlled genes (ccgs) are more likely to act as bottlenecks in the established PPI network. We also identified an important module related to circadian oscillators, and some functional unknown proteins in this module may serve as potential candidates for new oscillators. All predicted PPIs were compiled into a user-friendly database server(NCPI), which is freely available at http://protein.cau.edu.cn/ncpi.

BEng thesis

title Development and applications of NC interpolation simulation system.

supervisor Associate Professor Jingyun Liu

description In my work, a CNC interpolation simulation system was developed using Visual Basic, and the system can achieve real-time display and linear or circular interpolation calculation based on two approaches: point-by-point comparison and digital differential analyzer. Furthermore, it has interpolation error analysis and interpolation process data output, too.

Publications

2014 "Meta-analysis of GWAS on two Chinese populations followed by replication identifies novel genetic variants on the X chromosome associated with systemic lupus erythematosus", Yan Zhang, Jing Zhang, Jing Yang, Yongfei Wang, Lu Zhang, Xianbao Zuo, Liangdan Sun, Hai-Feng Pan, Nattiya Hirankarn, **Tingyou Wang**, Wanling Yang et al. Human Molecular Genetics, 2015, 24(1), 274-284

- 2014 "Chromosome-8-Coded Proteome of Chinese Chromosome Proteome Data Set (CCPD) 2.0 with Partial Immunohistochemical Verifications", Yang Liu, Wantao Ying, Zhe Ren, Wei Gu, Yang Zhang, Guoquan Yan, Pengyuan Yang, Yinkun Liu, Xuefei Yin, Cheng Chang, Jing Jiang, Fengxu Fan, Chengpu Zhang, Ping Xu, Quanhui Wang, Bo Wen, Liang Lin, Tingyou Wang, Cahoqin Du et al., Journal of Proteome Research, 2014, 13(1), 126-136.
- 2013 "Qualitative and quantitative expression status of the human chromosome 20 genes in cancer tissues and the representative cell lines", Quanhui Wang[#], Bo Wen[#], Guangrong Yan[#], Junying Wei[#], Liqi Xie[#], Shaohang Xu, Dahai Jiang, **Tingyou Wang**, Ruo Zhou, Haiyi Zhao et al., *Journal of Proteome Research*, 2013, 12(1), 151-161. (*These authors contribute equally to this work.)
- 2011 "A predicted protein-protein interaction network of the filamentous fungus Neurospora crassa.", **Ting-You Wang**, Fei He, Qi-Wen Hu, Ziding Zhang, Molecular BioSystems, 2011,7, 2278-2285.

Industry and commercial experience

- 2011–2013 Bioinformatics engineer, BGI, Shenzhen, China.
 - This was a full-time position involving design and development of databases, MS-proteomics research and technical documentation.
 - 2006 **Intern Engineer**, China FAW Group Corporation, Changchun, China.

 This was an internship job involving the improvement of machinery design and manufacturing process.

Teaching experience

2009 Teacher Assistant for undergraduate students in the course of Bioinformatics (full semester).

Awards and scholarships

- 2003-2005 Second-class scholarship winner for excellent academic performance (top 10%)
- 2008-2009 Outstanding graduate student leader award (vice-president of the Graduate Students' Union)
- 2008-2009 Outstanding academic performance scholarship

Conferences and courses attended

- 2009 Google Developer Day 2009, Beijing, China
- 2010 Dragon-Star Program 2010, Wuhan, China
- 2010 The 8th International Bioinformatics Workshop (IBW2010), Wuhan, China
- 2010 2010 International Summer School on Chips, Computers and Crops, Beijing, China
- 2011 Google Developer Day 2011, Guangzhou, China
- 2011 The 6th International Conference on Genomics (ICG-6), Shenzhen, China
- 2012 ICG-7 & Bio-IT APAC 2012, Hong Kong SAR, China
- 2013 Frontiers in Biomedical Research HKU 2013, Hong Kong SAR, China
- 2014 2014 East-West Alliance Global Symposia, Hong Kong SAR, China

Skills

Bioinformatics

systems An extensive knowledge of systems biology as they pertain to PPI network in my

biology thesis.

shotgun Familiar with methods and applications for identification and quantification in MS-

proteomics proteomics. Participator of Chromosome-Centric Human Proteome Project(CHPP) in

AOHUPO.

genomics Proficient in exome sequencing and genome-wide association study(GWAS).

Computer skills

os Linux, Windows 7, Windows XP, Mac OS X

pc Python, Perl, PHP, R, Shell, Visual Basic, C/C++

applications Microsoft Office Suite, OpenOffice, Vim, Photoshop, LaTex, AutoCAD

web HTML5, CSS, JavaScript/jQuery, LAMP, Google Maps API, Django, TCP/IP

database MySQL

Personal

A fast learner and critical thinker

Willing to take the incredible effort on the area of interest and never get tired of it

Other skills

Data and information collection

Writing and presenting reports

Other work-related interests if I had time

Online bioinformatics course, such as bioinformatics.ca

Reading books published by O'Reilly media, especially the books involving data science and data visualization

Watching TED talks, since these videos inspire me and facilitate to synthesize new ideas.

References

name Prof. Wanling Yang Ph. D.

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comments Dr. Wanling Yang is my Ph.D. primary supervisor.

name Prof. Yu-lung Lau

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email lauylung@hku.hk

website http://paed.hku.hk/menu/staff/lauylung/lauylung.html

comments Dr. Yu-lung Lau is my Ph.D. co-supervisor.

name Prof. Ziding Zhang Ph. D.

address College of Biological Sciences, China Agricultural University, Beijing 100193, China

 $email \quad zidingzhang@cau.edu.cn$

website http://protein.cau.edu.cn/zzdlab/faculty

comments Dr. Ziding Zhang is my M. Sc. thesis supervisor.