CURRICULUM VITAE of Dr. ZHU HAI LONG (hlzhu@hkbu.edu.hk)

Dr. Hailong Zhu

Academic Qualifications

Year	Degree	Field of Study	Institution
2002	Ph.D	Mechanical Engineering	Xi'an Jiaotong University, Xi'an, China

Doctoral Dissertation: **Statistical Learning Theory and Its Engineering Applications**

Year	Degree	Field of Study	Institution
1996	BEng	Mechanical Engineering	Xi'an Jiaotong University, Xi'an, China

Present Academic Position

2010.9-present Research Assistant Professor Department of Computer Science, Hong Kong Baptist University

Previous Positions Held

Year	Position/Title	Institution
2006.5-2010.7	Research Engineer	Research Institute of Innovative Products and Technologies, The Hong Kong Polytechnic University
2003.1-2006.4	Research Engineer	Global Research Shanghai / General Electronic

Research Interests

- Bioinformatics;

- Computational Biology;

- Systems Biology

Research Grants

- GRF (PI), 2013-2016, "Development of an Integrative Model for Reconstructing Dynamic Transcriptional Regulatory Networks from High Throughput Data", Project No.: 212613. Funding: HK$500,000.

- FRG (PI), 2015-2016, "Computational Drug screening for Ebola virus infection using Traditional Chinese Medicine Database", HK$125,000

- FRG (PI), 2014-2015, "A Computational Framework of Modeling the Transcriptional Regulation in Single Cells", Funding: HK$127,000.

- FRG (PI), 2013-3014, "A pilot study of modelling the dynamic gene regulation during the developmental cycle of human malaria parasite", Funding: HK$135,000.

- GRF (PI), 2011-2014, "A Stage-varying Methodology That Can Reconstruct the Dynamic Gene Regulations during the Process of Cancer Progression from Stage-course Transcriptional Data", Project No.: 212111, Funding: HK$922,500.

- FRG (PI), 2012-2013, "A simulation Study of Identifying the Transcriptional Regulatory Network", Funding: HK$65,000.

- PI, 2007-2010, Competitive Niche Area Funding, "Clinical Decision Support System for Cancer Diagnosis & Treatment", Project No: 1-BB56. Funding: HK$3,899,000.

- PI, 2008-2009, Internal Competitive Grant, "Recurrence Prediction for Osteosarcoma Treatment", Project No: A-PD0E. Funding: HK$150,000.

- Co-I, 2009-2010, Competitive Research Grants, "Finger-Joint-Print Recognition: A New Biometric Authentication Technique". The Hong Kong Polytechnic University, HK$ 250,000

- Deputy Coordinator, 2008-2010, Innovation and Technology Fund, (2008-2010), "Resolution and Quality Enhancement for Digital Color Videos". The Hong Kong Polytechnic University, HK$ 983,020

- Co-I, 2008-2009, Internal Competitive Research Grants, "Dual-energy Mammography using Medical Biometrics". The Hong Kong Polytechnic University, HKD319,000

Publications
*Corresponding author

1. Shabana kouser Ali, George Priya Doss C, Thirumal Kumar D and Hailong Zhu. (2015) CoagVDb: A comprehensive database for coagulation factors and their associated SAPs, BMC Biological Research, accepted to appear.

2. Narasundaram N, Liu JM, Karthick V, Doss GP, Chakraborty C, Chen LN, **Zhu HL***. (2015) Analysing the effect of mutation on protein function and discovering potential inhibitors of CDK4: Molecular modelling and dynamics studies. Accepted to appear, PLoS ONE.

3. Yu GX, **Zhu HL***, Domeniconi C, and Guo MZ. (2015) Integrating Multiple Networks for Protein Function Prediction, BMC Systems Biology, 2015, 9(S1): S4. (Impact Factor: 2.85)

4. Yu GX, **Zhu HL***, Domeniconi C. (2015) Predicting Protein Function using Incomplete Hierarchical Labels, BMC Bioinformatics, 16:1. (Impact Factor: 2.67)

5. Doss GP. C, Rajith B, Chakraborty C, NagaSundaram N, Ali SK, **Zhu HL***. (2014) Structural signature of the G719S-T790M double mutation in the EGFR kinase domain and its response to inhibitors. Scientific Reports, 4, Article number: 5868, doi:10.1038/srep05868.. (Impact Factor: 5.078)

6. Doss GP, Chakraborty C, Chen LN and **Zhu HL***. (2014) Integrating In Silico Prediction Methods, Molecular Docking, and Molecular Dynamics Simulation to Predict the Impact of ALK Missense Mutations in Structural Perspective. BioMed Research International. Volume 2014, Article ID 895831, 14 pages, (Impact Factor: 2.880)

7. Doss GP, Chakraborty C, Syed SA, NagaSundaram N, Chen LN, **Zhu HL*.** (2014) Evolution- and Structure-Based Computational Strategy Reveals the Impact of Deleterious Missense Mutations on MODY 2 (Maturity-Onset Diabetes of the Young, Type 2). Theranostics, 4(4):366-385. doi:10.7150/thno.7473. (Impact Factor: 7.806)

8. Chakraborty C, C GPD. C, Chen LN, **Zhu HL***. (2014) Evaluating protein-protein interaction networks for diseases, pathway, target discoverry, and drug-design using in silico pharmacology. Curr Protein Pept Sci. 2014;15(6):561-71. (Impact Factor: 2.33)

9. Zeng T, Sun SY, Wang Y, **Zhu HL**, Chen LN. (2013) Network biomarkers reveal dysfunctional gene regulations during disease progression. FEBS Journal, 2013 Sep 20. doi: 10.1111/febs.12536. (Impact Factor: 4.25)

10. Doss CGP, Nagasundaram N, Chakraborty C, Chen LN, **Zhu HL***. (2013) Extrapolating the effect of deleterious nonsynonymous single nucleotide polymorphisms in the binding adaptability of flavopiridol with CDK7 protein: a molecular dynamics approach, Human Genomics, 7:10, doi:10.1186/1479-7364-7-10. (Impact Factor: 2.69)

11. **Zhu HL***, Rao RSP, Zeng T, Chen LN. (2012) Reconstructing dynamic gene regulatory networks from sample-based transcriptional data. Nucleic Acids Research, 40(21):10657-10667; doi: 10.1093/nar/gks860. (Impact Factor: 8.278)

12. **Zhu HL***, Rao RSP, Chen LN. (2012) Reconstructing Dynamic Gene Regulatory Network for the Development Process of Hepatocellular Carcinoma. 2012 Workshop on Pharmaco-Informatics for Drug Discovery in Conjunction with 2012 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2012), Philadelphia, Oct. 2012.

13. Zhang Lin, Zhang Lei, Zhang D, **Zhu HL**. (2011) Ensemble of local and global information for finger-knuckle-print recognition, Pattern Recognition. 44(9):1990-1998. (IF: 3.219)

14. Zhang Lin, Zhang Lei, Zhang D and **Zhu HL**. (2010) Online finger-knuckle-print verification for personal authentication, Pattern Recognition, 43(7):2560-71. (IF: 3.219)

15. Chow CK, **Zhu HL***, Kuo WP. (2010) Error margin analysis for feature gene extraction, BMC Bioinformatics, 11:241, (11 May 2010). (IF: 3.02)

16. Wang HQ, **Zhu HL***, Cho CS, Yip TC, Ngan KC, Law CK. (2010) Method of regulatory network that can explore protein regulations for disease classification, Artificial Intelligence in Medicine, 48(2-3):119-127. (IF: 1.767)

17. Lau HY, Tong KY, **Zhu HL**, (2009). Support vector machine for classification of walking conditions of persons after stroke with dropped foot. Human Movement Science, 28(4):504-514. (IF: 2.602)

18. Wang HQ, Wong HS, **Zhu HL**, Yip TC. (2009) A neural network-based biomarker association information extraction approach for cancer classification. Journal of Biomedical Informatics. 42:654-666. (IF: 2.434)

19. Wang HQ, **Zhu HL***, Zheng CH, Yip TC, Cho CS, Law CK. (2009) Mining protein regulatory relationships using neural network methods for early prediction of SARS, Journal of Circuits, Systems, and Computers, 18(8): 1397-1407.

20. Lau HY, Tong KY, **Zhu HL**. (2008) Support Vector Machine for Classification of Walking Conditions Using Miniature Kinematic Sensors, Medical & Biological Engineering & Computing, 46(6): 563-573. (IF: 1.790)

21. Au SK, Cho CS, Yip TT, Yip C, **Zhu HL**, Leung WF, Tsui YB, Kwok LP, Kwan SM, Cheng WW, Tzang CH, Yang M, Law CK. (2007) Deep Proteome profiling of sera from never-smoked lung cancer patients, Biomedicine & Pharmacotherapy, 61(9):570-577. (IF: 2.231)

22. **Zhu HL***, Rao RSP, Chen LN. (2012) Reconstructing Dynamic Gene Regulatory Network for the Development Process of Hepatocellular Carcinoma. 2012 Workshop on Pharmaco-Informatics for Drug Discovery in Conjunction with 2012 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2012), Philadelphia, Oct. 2012.

23. **Zhu HL***, Wang HQ. (2010) Feature relation network that can identify underlying data structure for effective pattern classification, pp 531 – 534, 2010 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 18-21 Dec. 2010, Hong Kong.

24. Chan KY, **Zhu HL***, Lau CC, Dillon TS, Ling SH. (2010) Determination of chemo-response for osteosarcoma using a hybrid evolutionary algorithm, IEEE CEC 2010, July, Barcelona, Spain.

25. Chow CK, **Zhu HL***, Lacy J, Lingen MW, Kuo WP, Chan K. (2009) A cooperative feature gene extraction algorithm that combines classification and clustering. International conference of bioinformatics and biomedicine (BIBM) 2009, Nov.1-4. Washington DC, USA.

26. Wang HQ, **Zhu HL***, Yip TC, Cho CS, Ngan KC, Law CK. (2008) Mining protein regulation relationships using neural network methods for early prediction of SARS, International Conference of Intelligent Computing 2008, Sep.15-18, Shanghai.

27. Chan KY, **Zhu HL***, Aydin ME, Lau CC. (2008) An Integrated Approach of Support Vector Machine and Variable Neighborhood Search for Discovering Combinational Gene Signatures in Predicting Chemo-response of Osteosarcoma. IEEE World Congress on Computational Intelligence 2008 (IEEE WCCI 2008), Jun.1-6, Hong Kong.

28. Wang HQ, **Zhu HL***, Yip TC, Cho CS, Ngan KC, Law CK. (2008) Exploring protein regulations with regulatory network for cancer classification. Proceedings of the 2008 International Conference on BioMedical Engineering and Informatics, 133-137, BMEI 2008, May 28-30, Sanya, Hainan.

29. Wang HQ, Wong HS, **Zhu HL**. (2008) Constructing the histogram representation for automatic gridding of cDNA microarray images. Medical Biometrics, First International Conference, ICMB 2008, Hong Kong, China, January 4-5, 2008, Proceedings, 248-255. Lecture Notes in Computer Science 4901 Springer 2008.

Patents

1. Hailong Zhu, "Method for Signal Denoising Using Continuous Wavelet Transform", U.S. Patent application no.: 20100010780.

2. Lei Zhang, Lin Zhang, Hailong Zhu, David Zhang, Nan Luo, "Method and system for identifying a person using their finger-joint print", Assignee: The Hong Kong Polytechnic University. Patent Number: 8208692

3. Lei Zhang, Weisheng Dong, Hailong Zhu, "Method and system for spatial-temporal denosing and demosaiking for noisy color filter array videos", Assignee: The Hong Kong Polytechnic University. Application number: 20110317916.