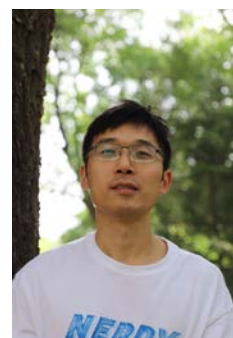


CURRICULUM VITAE

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Education

Ph.D. in Bioinformatics, expected to graduate in June 2023

College of Biological Science and Technology, Beijing Forestry University, China

Dissertation: A Computational Framework for Inferring Mobile Gene Regulatory Networks in Plant Grafting

Supervisor: Prof. Rongling Wu

M.S. in Silviculture, 2018

College of Forestry and Biotechnology, Zhejiang A&F University, China

Thesis: Construction of genetic maps and analysis of DNA methylation-related gene expression in hickory

Supervisor: Prof. Yan-ru Zeng

B.Sci. in Biotechnology, 2015

College of Forestry and Biotechnology, Zhejiang A&F University, China

Research Techniques and Skills

- Proficiency in programming language R, maintenance of an R package on CRAN (idopNetwork), and able to use Python and Julia.
- Experienced in workflow for bioinformatics analysis, especially for RNA-seq data.
- Statistical modelling for data analysis, focusing on GMM based clustering.
- Mastery of many essential experimental techniques of molecular biology including GE, extraction and detection of plasmid DNA and RNA, gel extraction, PCR, vector construction, etc.
- Field experiences in plant (hickory, poplar, etc.) cultivation.

Publications

1. **Dong, Ang.**, Wu, Shuang., Che, Jincan., Wu, Rongling. idopNetwork: A network tool to dissect spatial community ecology, *Methods in Ecology and Evolution*, submitted.
2. Wang, Q., **Dong, A.**, Zhao, J., Wang, C., Griffin, C., Gragnoli, C., ... & Wu, R. (2022). Vaginal microbiota networks as a mechanistic predictor of aerobic vaginitis. *Frontiers in microbiology*, 13.
3. Cao, X. *, **Dong, A.***, Kang, G., Wang, X., Duan, L., Hou, H., ... & Wu, R. (2022). Modeling spatial interaction networks of the gut microbiota. *Gut microbes*, 14(1), 2106103.

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4. Chen, W., Yu, W., **Dong, A.**, Zeng, Y., Zheng, B., & Wu, R. (2022). The genetic architecture of growth traits in the conifer *Torreya grandis* as revealed by joint linkage and linkage disequilibrium mapping. *Frontiers in Plant Science*, 2056.
 5. Wang, J., Feng, L., Mu, S., **Dong, A.**, Gan, J., Wen, Z., ... & Sun, L. (2022). Asymptotic tests for Hardy–Weinberg equilibrium in hexaploids. *Horticulture Research*.
 6. Feng, L., Dong, T., Jiang, P., Yang, Z., **Dong, A.**, Xie, S. Q., ... & Wu, R. (2022). An eco-evo-devo genetic network model of stress response. *Horticulture Research*.
 7. Wang, Q., **Dong, A.**, Jiang, L., Griffin, C., & Wu, R. (2022). A Single-Cell Omics Network Model of Cell Crosstalk during the Formation of Primordial Follicles. *Cells*, 11(3), 332.
 8. Sang, M. *, **Dong, A. ***, Wu, S., Li, F., Wang, J., Griffin, C., & Wu, R. (2022). A graph model of combination therapies. *Drug Discovery Today*.
 9. Yang, D., Li, F., Wang, J., **Dong, A.**, & Wu, R. (2022). A framework to model a web of linkage disequilibria for natural allotetraploid populations. *Methods in Ecology and Evolution*, 13(2), 358-366.
 10. **Dong, A.**, Zhao, J., Griffin, C., & Wu, R. (2021). The Genomic Physics of COVID-19 Pathogenesis and Spread. *Cells*, 11(1), 80
 11. **Dong, A.**, Feng, L., Yang, D., Wu, S., Zhao, J., Wang, J., & Wu, R. (2021). FunGraph: A statistical protocol to reconstruct omnigenic multilayer interactome networks for complex traits. *STAR protocols*, 2(4), 100985.
 12. Yang, D., Jin, Y., He, X., **Dong, A.**, Wang, J., & Wu, R. (2021). Inferring multilayer interactome networks shaping phenotypic plasticity and evolution. *Nature communications*, 12(1), 1-17.
 13. Wang, H., Ye, M., Fu, Y., **Dong, A.**, Zhang, M., Feng, L., ... & Wu, R. (2021). Modeling genome-wide by environment interactions through omnigenic interactome networks. *Cell Reports*, 35(6), 109114.
 14. Wen, Z., Jiang, L., Li, M., **Dong, A.**, Ye, M., Meng, J., ... & Sun, L. (2021). Mapping the genetic architecture of developmental modularity in ornamental plants. *Ornamental Plant Research*, 1(1), 1-10.
 15. Sun, L., **Dong, A.**, Griffin, C., & Wu, R. (2021). Statistical mechanics of clock gene networks underlying circadian rhythms. *Applied Physics Reviews*, 8(2), 021313.

Academic Services

Peer review of manuscripts: *Journal of Molecular Evolution*, *Frontiers in Systems Biology*, *Frontiers in Genetics*, *Plant Molecular Biology Reporter*, and *BMC Genomics*

Awards

2019-2022 Beijing Forestry University graduate scholarship

2022 College of Biological Science and Technology, excellence award for young scholars