



Xiuzhen Huang, PhD
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Academic interests: Bioinformatics and Computational Biology, Algorithm Design and Analysis

Research Focus & Techniques of Expertise: Her research in bioinformatics focuses on applying computational approaches to solve biological problems. Through research collaborations with biologists, her research group works on modeling real-life biological problems, developing and implementing efficient bioinformatics algorithms, and applying bioinformatics tools to do biological data analysis. By providing useful information to significantly reduce the time and expense of doing blind biological experiments, the work in bioinformatics has the potential to enable important biological discoveries which could positively impact scientific discovery in agricultural plant genetics, pharmaceutical design, and protein production related to human health. Computers with powerful computational ability are used in her lab to develop bioinformatics tools and conduct biological analysis. The current bioinformatics research projects, supported by the P3 seed grants, include protein structure prediction and modeling, gene clustering and network modeling, systems biology study for plant species.

Grants

Grant P3-101: Efficient algorithms for protein structure prediction and applications in RTB binding occupancy determination.

PI: Xiuzhen Huang; Co-PI's: Carole Cramer, Steve Jennings

Grant P3-108: Metabolic & genomics empowered platform for phytochemical and gene network discovery in *Medicago truncatula*.

PI: Hong Li Wang; **Co-PI's:** Xiuzhen Huang, Stephen Grace, and Nawab Ali

Grant P3-201: Determination of Factors Affecting High-Level Protein Accumulation in Transgenic Maize Seed.

PI: Elizabeth Hood; **Co-PI:** Xiuzhen Huang