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CURRENT RESEARCH INTERESTS

- Systems Biology: Gene network constructions, and gene function prediction
- Genomics and Bioinformatics on tree growth & wood development
- Biological database design and development

EDUCATION

- **Ph.D**. Plant Molecular Biology, University of Hawaii at Manoa, USA, 2001
- **M. Sc.** Computer Science, University of Chicago, USA, 2003
- **M. Sc.** Forest Genetics, Beijing Forestry University, P.R. China, 1989
- **B.S.** Agricultural Sciences, Beijing Forestry University, P.R. China, 1986

PR0FESSIONAL EXPERIENCE

2008 ~ present	Assistant Professor, Michigan Technological University, Houghton, MI
2006 ~ 2008	Bioinformatics Developer, Wicell Research Institute, Inc., Madison, Wisconsin
2005 ~ 2006	Bioinformatics Scientist, Operon Biotechnologies, Inc., Huntsville, Alabama
2004 ~ 2005	Post-doc, Biostatistics, University of Alabama, Birmingham, Alabama
2003 ~ 2004	Post-doc, Bioinformatics, University of Minnesota, Minneapolis, MN
1996 ~ 2001	Ph.D. student, Plant Molecular Biology, University of Hawaii at Manoa
1989 ~ 1995	Assistant Professor, and Lecturer in Forestry Genetics, Beijing Forestry University

PUBLICATIONS & PATENTS

- **Wei, H**., P. F. Kuan, S. Tian, C. Yang, J. Nie, S. Sengupta, V. Ruotti, G. Jonsdottir, S. Keles, J. Thomson and R. Stewart. 2008. A survey of the relationships between oligonucleotide properties and hybridization intensities in NimbleGen platform. ***Nucleic Acids Research***, 2008, Vol. 36, No. 9:2926-2938

- Ming, R., S. Hou, Y. Feng, Q. Yu, A. Dionne-Laporte, J. Saw, P. Senin, W. Wang, S. Salzberg, X. Wang, E. Lyons, D. Rice, M. Riley, R. Skelton, J. Murray, C. Chen, M. Eustice, E. Tong, H. Albert, R. E. Paull, M.-L. Wang, Y. Zhu, M. Schatz, N. Nagarajan, R. Agbayani, P. Guan, A. Blas, J. Wang, J.-K. Na, T. Michael, E. V. Shakirov, B. Haas, J. Thimmapuram, D. Nelson, H. Tang, J. E. Bowers, J. Suzuki, S. Tripathi, K. Neupane, **H. Wei,** R. Singh, B. Irikura, N. Jiang, W. Zhang, K. Wall, G. Presting, A. Gschwend, Y. Li, A. Windsor, R. N. Pérez, M. J. Torres, F. A. Feltus, B. Porter, M. Paidi, M.-C. Luo, L. Liu, D. Christopher, P. H. Moore, T. Sugimura, C.

dePamphilis, J. Jiang, M. Schuler, T. Mitchell-Olds, D. Shippen, J. Palmer, M. R. Freeling, A. H. Paterson, D. Gonsalves, L. Wang and M. Alam. 2008. The genome sequence of transgenic papaya, Carica papaya. ***Nature***, Vol. 452, No. 7190:991-996

- Pan, P., S. Tian, J. Nie, C. Yang, V. Ruotti, **H. Wei**, G. Jonsdottir, R. Stewart, and J. Thomson. 2007. Whole genome analysis of Histone H3 lysine 4 and lysine 27 methylation in human embryonic stem cells. ***Cell Stem Cell***, Vol. 1, No 3:299~312.

- **Wei, H** , S. Persson, T. Mehta, V. Srinivasasainagendra, L. Chen, G. Page, C. Somerville, A. Loraine. 2006. Transcriptional coordination of the metabolic network in Arabidopsis thaliana ***Plant Physiology***. 142(2):762-74.

- Persson, S., **H. Wei**, J. Milne, G. Page, C. Somerville. 2005. Identification of genes required fro cellulose synthesis by regression analysis of public microarray data sets. ***Proc Natl Acad Sci USA***, 102: 8633-8638. (Faculty 1000 evaluation)

- **Wei, H.,** Y. Kaznessis. 2005. Inferring gene regulatory relationships by combining target-target pattern recognition and regulator-specific motif examination. ***Biotechnology and Bioengineering*.** Vol. 89, No1: 53-77

- Albert, H and **H. Wei**. Sugarcane Ubi9 gene promoter and methods of use thereof. 2004, **U.S. Patent** No. 6706948 (http://www.uspto.gov).

- Albert, H and **H. Wei**. Promoter of the sugarcane Ubi9 gene. 2004. **U.S. Patent No.** 6686513 B1 (http://www.uspto.gov).

- Albert, H and **H. Wei**. Promoter of the sugarcane Ubi4 Gene. 2003. **U.S. Patent No**. 6638766 (http://www.uspto.gov).

- Lee, K.M., S. Bhawan, T. Majima, **H. Wei**, V. Kumar. 2003. Cutting Edge: The NK cell receptor 2B4 augments Ag-specific CTL activity through CD48 ligation on neighboring T cells. ***Journal of Immunology*.** Vol.170, No 10: 4881.

- **Wei, H**., H. Albert and P. Moore. 2003. Comparative expression analysis of two sugarcane polyubiquitin promoters and flanking sequences in transgenic plants. ***Journal of Plant Physiology*** 160, 1241-1251.

- **Wei, H**., H. Albert and P. Moore. 1999. Differential expression of sugarcane polyubiquitin gene and isolation of promoters from two highly expressed members of the gene family. ***Journal of Plant Physiology***, Vol. 155, p513-519.

- **Wei, H**., F. Li., Y. Zhu, T. Dong. 1995. Some correlations between leaf structures of elms and resistance to leaf beetles. ***Journal of Beijing Forestry University*** (English edition). Vol.4, No. 1, pp.17-26.

- **Wei, H**. 1994. Heterosis and cross breeding of forest trees (review). ***Journal of Heibei Forestry College***. Vol.9, No.1, pp. 92-96.

- **Wei, H**., and Y., Zhu. 1991. Breeding strategies of *Ulmas pumila*. Genetic Improvement on Broadleaf Trees. Huang, M and Tu, Z (eds). Scientific and Technical Document Publisher, pp. 263-270.

- **Wei, H**. 1990. Comparison of genetics gain between two breeding strategies: clonal selection and seed orchard. ***Forestry Science and Technology***. Vol. 236. No.1, pp 13-14.

- **Wei, H**. 1989. Studies on juvenile-mature correlation between quantitative traits and early selection ages of Ulmus pumila. ***Journal of Inner Mongolia Forestry College***. Vol.11.

Presentations/posters

- **Wei, H** , S. Persson , T. Mehta , V. Srinivasasainagendra , L. Chen , G. Page , C. Somerville, A. Loraine. Transcriptional coordination of the metabolic network in Arabidopsis thaliana. 17TH International Conference on Arabidopsis Research, Madison, Wisconsin, 2006 (Poster and Presentation)

- **Wei, H**., S. Persson, G. Page, A. Loraine, D. Allison, C. Somerville. A-large-scale analysis of hundred microarray data sets for identify genes involved in cell wall formation. The 2005 Plant & Animal Genome XIII, San Diego, USA, 2005. (Poster)

- Barge, J., **H. Wei,** David Allison, Tomas Prolla, Richard Weindruch, 2004, Patterns of gene expression in multiple tissues of calorie-restricted mice. Molecular Genetics of Aging. October 6–10, 2004. Cold Spring Harbor, New York. (Poster)

- Wu, X., D. Moellering, H. Vestri, **H. Wei**, L. Maianu, J. Rosinski, B. Rhees, V. So, D. Allison, M. Martin, T. Garvey. Dysregulation of Mitochondria-Related Genes in Skeletal Muscle from Insulin Resistant Humans Is Associated with Suppression of Transcription Factors Involved in Mitochondrial Biogenesis. American Diabetes Association Annual Conference, 2005. (Poster)

- **Wei, H**., Y. Kaznessis. Make sense of microarray data. The 2003 Annual Conference of American Institute of Chemical Engineers, Nov16-21, San Francisco, CA (Presentation)

- **Wei, H**., H. Albert and P. Moore. Characterization of two sugarcane polyubiquitin gene promoters and matrix attachment regions for gene regulation in monocots. The 2001 Plant & Animal Genome IX, San Diego, USA, 2001. (Presentation)

- **Wei**, H., H. Henrik and P. Moore. Isolation and characterization of two constitutive sugarcane gene promoters for genetic engineering of agriculturally important crops. Conference of Hawaii Sugarcane Technology, Maui, Hawaii, 1999. (Poster)

- Moore, P., **H, Wei**, H. Albert. Expression of two sugarcane polyubiquitin promoters in transgenic sugarcane, rice and tobacco. The International Conference of Animal and Plant Genome in San Diego, USA, (Presentation) 1999

- **Wei, H**., H. Albert and P. Moore,. Isolation and characterization of two strong constitutive promoters from sugarcane. 10th Ann. CTAHR Student Research Symposium. (Presentation). 1998.

- **Wei, H**., H. Albert and P. Moore. Isolation and transient expression of a strong gene promoter from sugarcane. The International Conference of Animal and Plant Genome in San Diego, USA, (Presentation) 1998

- **Wei, H**., H. Albert. Differential expression of sugarcane polyubiquitin genes. 9th Ann. CTAHR Student Research Symposium. (Poster) 1997.

TRAININGS

- ICSB 2007 tutorials: 1). Drawing, annotating and analyzing biological pathways with Edinburgh Pathway Editor; 2). New mathematical methods for systems biology. Long Beach, California, 2007.

- Workshop: Gene co-expression network analysis and its applications in systems biology. Organized by Steve Horvath and Peter Langfelder, UCLA, 2007.

- Microarray Research Coordination Network (MRCN). Organized by Grier Page and David Allison, New York, 2004.