

**WANG, Xiao-Wei**  
**CRRICULUM VITAE**

**Title:** Professor, Institute of Insect Science, Zhejiang University

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**Current position and employment history**

- ◆ 2014.01-present Professor, Institute of Insect Sciences, Zhejiang University, Hangzhou, China
- ◆ 2009.08-2013.12 Principal Investigator, Institute of Insect Sciences, Zhejiang University, Hangzhou, China
- ◆ 2007.08-2009.08 Postdoctoral Research Fellow, Harvard Medical School / Dana-Farber Cancer Institute, Boston, United States
- ◆ 2007.01-2007.07 Postdoctoral Research Fellow, Department of Biological Sciences, National University of Singapore, Singapore
- ◆ 2001.07-2002.07 Research Assistant, Proteomics Centre, Beijing Genomics Institute, Beijing, China

**Education**

- ◆ 2002.07-2007.01: **Ph. D.** Molecular Biology, National University of Singapore, Singapore
- ◆ 1998.09-2001.07: **M. S.** Microbial and Biochemical Pharmaceutical, Shenyang Pharmaceutical University, China
- ◆ 1994.09-1998.07: **B. S.** Microbiology, Hebei University, China

**Major Research Interests**

- ◆ Whitefly functional genomics;
- ◆ Molecular mechanism of begomovirus transmission in the whitefly *Bemisia tabaci*;
- ◆ Whitefly-plant interactions;

**Publications** (\*Corresponding author)

1. Wei J, Zhao JJ, Zhang T, Li FF, Ghanim M, Zhou XP, Ye GY, Liu SS and Wang XW\* Specific cells in the primary salivary glands of the whitefly *Bemisia tabaci* control retention and transmission of begomoviruses. *Journal of Virology* (accepted)
2. Wang HL, Yang J, Boykin LM, Zhao QY, Wang YJ, Liu SS, Wang XW\*. Developing conversed microsatellite markers and their implications in evolutionary analysis of the *Bemisia tabaci* complex. *Scientific Reports* 4: 6351
3. Gao XL, Li JM, Xu HX, Jiu M, Liu SS and Wang XW\* (2014) Cloning of an extracellular Cu/Zn superoxide dismutase and functional differences of superoxide dismutases in invasive and indigenous whiteflies. *Insect Science* (accepted)
4. Wang LL, Wei XM, Xu HX, Zhou XP, Liu SS and Wang XW\* (2014) Expression and functional characterization of a soluble form of *Tomato yellow leaf curl virus*

- coat protein. *Pest Management Sciences* (accepted)
5. Wang HL, Xiao N, Yang J, Wang XW, Colvin J, Liu SS (2014) The complete mitochondrial genome of *Bemisia afer* (Hemiptera: Aleyrodidae). *Mitochondria DNA* doi: 10.3109/19401736.2013.87392
  6. Ye XD, Su YL, Zhao QY, Liu SS, Wang XW\* (2014) Transcriptomic analyses reveal the adaptive features and biological differences of guts from two invasive whitefly species. *BMC Genomics* 15: 370
  7. Zhang CR, Zhang S, Xia J, Li FF, Xia WQ, Liu SS and Wang XW\* (2014) The immune strategy and stress response of the Mediterranean species of the *Bemisia tabaci* complex to an orally delivered bacterial pathogen. *PLoS ONE* 9: e94477
  8. Luan JB, Wang YL, Wang J, Wang XW\* and Liu SS (2013) Detoxification activity and energy cost is attenuated in the whiteflies feeding on begomovirus-infected tobacco plants. *Insect Molecular Biology* 22: 597-607
  9. Xia J, Zhang CR, Zhang S, Li FF, Feng MG, Wang XW\* and Liu SS (2013) Analysis of whitefly transcriptional responses to *Beauveria bassiana* infection reveals new insights into insect-fungus interactions. *PLoS ONE* 8: e68185
  10. Wang LL, Huang H, Zhang CR, Xia J, Liu SS and Wang XW\* (2013) Cloning and functional characterization of c-Jun NH2-terminal kinase from the Mediterranean species of the whitefly *Bemisia tabaci* complex. *International Journal of Molecular Sciences* 14: 13433-13446
  11. Wang HL, Yang J, Boykin L, Zhao QY, Li Q, Wang XW\* and Liu SS (2013) The first insight into the characteristics and expression profiles of the mitochondrial genome for the Mediterranean species of the *Bemisia tabaci* species complex. *BMC Genomics* 14: 401
  12. Su YL, He WB, Wang J, Li JM, Wang XW\* and Liu SS (2013) Selection of endogenous reference genes for gene expression analysis in the whitefly *Bemisia tabaci*. *Journal of Economic Entomology* 106: 1446-1455
  13. Wang YL, Wang YJ, Luan JB, Yan GH, Liu SS and Wang XW\* (2013) Analysis of the transcriptional differences between indigenous and invasive whiteflies reveals possible mechanisms of whitefly invasion. *PLoS ONE* 8: e62176
  14. Bing XL, Ruan YM, Rao Q, Wang XW\* and Liu SS (2013). Diversity of secondary endosymbionts among different putative species of the whitefly, *Bemisia tabaci*. *Insect Science* 20: 194-206
  15. Gao XL, Wei J, Li JM, Jiu M, Yan GH, Liu SS and Wang XW\* (2013) Cloning, expression and characterization of mitochondrial manganese superoxide dismutase from the whitefly, *Bemisia tabaci*. *International Journal of Molecular Sciences* 14: 871-887
  16. Bing XL, Yang J, Zchori-Fein E, Wang XW and Liu SS (2013) Characterization of a newly discovered symbiont in the whitefly *Bemisia tabaci* (Hemiptera: Aleyrodidae). *Applied and Environmental Microbiology* 79: 569-575 (Cover article)
  17. Wang XW\*, Zhao QY, Luan JB, Wang YJ, Yan GH and Liu SS (2012) Analysis of a native whitefly transcriptome and its sequence divergence with two invasive whitefly species. *BMC Genomics* 13: 529
  18. Rao Q, Wang S, Zhu DT, Wang XW\* and Liu SS (2012) Draft Genome Sequence of "Rickettsia sp. Strain MEAM1", Isolated from the Whitefly, *Bemisia tabaci*. *Journal of Bacteriology* 194: 4741-4712
  19. Rao Q, Wang S, Su YL, Bing XL, Liu SS and Wang XW\* (2012) Draft Genome Sequence of

- "*Candidatus Hamiltonella defensa*", an Endosymbiont of the Whitefly, *Bemisia tabaci*. *Journal of Bacteriology* 194: 3558
20. Su YL, Li JM, Ye XD, Wang XW\* and Liu SS (2012) Transcriptomic analysis of the salivary glands of an invasive whitefly. *PLoS ONE* e0039303
  21. Liu SS, Walling LL and Wang XW\* (2012) Special issue introduction-The whitefly *Bemisia tabaci* species complex and begomoviruses: research progress and future prospects. *Journal of Integrative Agriculture* 11: 171-175
  22. Li FF, Xia J, Li JM, Liu SS and Wang XW\* (2012) p38 MAPK is a component of the signal transduction pathway triggering cold stress response in the MED cryptic species of *Bemisia tabaci*. *Journal of Integrative Agriculture* 11: 302-311
  23. Wang XW\*, Luan JB, Li JM, Su YL, Xia J and Liu SS (2011) Transcriptome analysis and comparison reveal divergence between two invasive whitefly cryptic species. *BMC Genomics* 12: 458
  24. Li JM, Su YL, Gao XL, He J, Liu SS and Wang XW\* (2011) Molecular characterization and oxidative stress response of an intracellular Cu/Zn superoxide dismutase (CuZnSOD) of the whitefly, *Bemisia tabaci*. *Archives of Insect Biochemistry and Physiology* 77: 118-133
  25. Luan JB, Li JM, Varela N, Wang YL, Li FF, Bao YY, Zhang CX, Liu SS and Wang XW\* (2011) Global analysis of the transcriptional response of whitefly to *Tomato yellow leaf curl China virus* reveals their relationship of coevolved adaptations. *Journal of Virology* 85: 3330-3340 (Cover article)
  26. Li JM, Ruan YM, Li FF, Liu SS and Wang XW\* (2011) Gene expression profiling of the whitefly (*Bemisia tabaci*) Middle East – Asia Minor 1 feeding on healthy and *Tomato yellow leaf curl China virus*-infected tobacco. *Insect Science* 18: 11-22. (\*Corresponding author)
  27. Wang XW\*, Luan JB, Li JM, Bao YY, Zhang CX and Liu SS (2010) *De novo* characterization of a whitefly transcriptome and analysis of its gene expression during development. *BMC Genomics* 11: 400 (\*Corresponding author)
  28. Peng J, Yuan Q, Lin B, Panneerselvam P, Wang XW, Ho B and Ding JL (2010) SARM inhibits both TRIF- and MyD88-mediated AP-1 activation. *European Journal of Immunology* 40: 1738-1747
  29. Popov S, Mirshahid S, Essono S, Song R, Wang XW and Ruprecht RM (2009) Generation of recombinant vaccinia viruses via green fluorescent protein selection. *DNA and Cell Biology* 28: 103-108 (Cover article)
  30. Wang XW, Tan, BZ, Sun M, Ho B and Ding JL (2008) Thioredoxin-like 6 protects retinal cell line from photooxidative damage by upregulating NF- $\kappa$ B activity. *Free Radical Biology & Medicine* 45: 336-344
  31. Loh WC<sup>#</sup>, Wang XW<sup>#</sup>, Bui TH, Ho B and Ding, JL (2008) SARM: a novel Toll-like receptor adaptor, is functionally conserved from arthropod to human. *Molecular Immunology* 45: 1732-1742 <sup>#</sup>equal contribution
  32. Fan ZH<sup>#</sup>, Wang XW<sup>#</sup>, Lu JH, Ho B and Ding JL (2008) Elucidating the function of an ancient NF- $\kappa$ B p100 homologue, *CrRelish*, in antibacterial defense. *Infection & Immunity* 76: 664-670 <sup>#</sup>equal contribution
  33. Wang XW, Liou YC, Ho B and Ding JL (2007) An evolutionarily conserved 16 kDa thioredoxin is an antioxidant which regulates the NF- $\kappa$ B signaling pathway. *Free Radical Biology & Medicine* 42: 247-259
  34. Wang XW, Tan NS, Ho B and Ding JL (2006) Evidence for the ancient origin of the NF- $\kappa$ B/I $\kappa$ B cascade: Its archaic role in pathogen infection and immunity. *Proc Natl. Acad. Sci. (USA)* 103: 4204-4209
  35. Yu XL, He JY, Bai XF, Wang XW and Duan HG (2004) Mutagenesis and strain-improving of avermectin-producing strain *Streptomyces avermitilis*. *Journal of Shenyang Pharmaceutical University* 03: 222-225

36. Wang XW, He JY and Bai XF (2001) Studies on the specific metabolites of *Streptomyces avermitilis* E107. *Chinese Journal of Antibiotics* **26**: 429-431

### Teaching Activity

- ◆ Instructor for “Current Advances in Entomology” from 2010-2012
- ◆ Supervised 2 MSc students from 2009 to 2012

### Societies and Professional Activities

- ◆ Editorial Board Member for *Scientific Reports* (Nature Publishing Group)
- ◆ Editorial Board Member for *PLoS ONE*
- ◆ Editorial Board Member for *Journal of Insect Science*
- ◆ Guest Editor, *Bemisia* special issue of *Journal of Integrative Agriculture* (2012, 11:2)
- ◆ Member of The Entomological Society of China
- ◆ Member of the American Society for Microbiology

### Honors and Awards

- ◆ 2012 New Century Excellent Talents in University, Ministry of Education, China
- ◆ 2012 Excellent Teacher Award, College of Agriculture and Biotechnology, Zhejiang University
- ◆ 2010 Qianjiang Talents, Zhejiang Province
- ◆ 2007-2009 Postdoctoral fellowship, Harvard University
- ◆ 2007 Shortlisted for The Chua Toh Hua Memorial Gold Medal (University award to PhD graduate with the most outstanding research work done in Life Sciences)
- ◆ 2002-2006 Postgraduate scholarship, National University of Singapore

### Attended International Conferences

- ◆ September 2011, The 4th European Whitefly Symposium, Rehovot, Israel.
- ◆ November 2010, The 6th International Symposium on Geminivirus, Guanajuato, Mexico
- ◆ June 2010, EMBO WORKSHOP “Genomic approaches to interactions between plant viruses, their hosts and their vectors”, Turin, Italy
- ◆ November 2009, The 5th International *Bemisia* Workshop, Guangzhou, China
- ◆ March 2006, Keystone Symposium: NF- $\kappa$ B: 20 Years on the Road from Biochemistry to Pathology, Banff, Canada

### Grants

- ◆ New Century Excellent Talents in University, Ministry of Education (2013-2015)
- ◆ National Natural Science Foundation of China (Project 31171848) (2012-2015)
- ◆ National Natural Science Foundation of China (Project 31071686) (2011-2013)
- ◆ Zhejiang Provincial Natural Science Foundation (Project Y3100185) (2010-2012)
- ◆ Integrated prevention and management of *Tomato yellow leaf curl virus* disease, Special Fund for Agro-scientific Research in the Public Interest (2010-2014)