

# CURRICULUM VITAE

## Zachary Y. Huang

Associate Professor, Department of Entomology  
Michigan State University, East Lansing, MI 48824  
Phone: 517-353-8136, Fax: 517-353-4354  
Email: bees@msu.edu, <http://bees.msu.edu>

### Education

Ph.D., Honey Bee Biology, University of Guelph, Canada, 1988  
B.Sc., Entomology and Phytopathology, Hunan Agricultural University, China, 1982

### Professional Experience

07/04 to present Associate Professor, Dept. of Entomology, Michigan State University  
Ecology, Evolutionary Biology and Behavior Program  
04/06 - Environmental Science and Policy Program  
11/98 to 06/04 Assistant Professor, Dept of Entomology, Michigan State University  
08/93 to 10/98 Senior Research Scientist, Department of Entomology, University of Illinois  
03/90 to 07/93 Postdoctoral Fellow, Dept of Entomology, University of Illinois  
08/88 to 02/90 Postdoctoral Fellow, Dept of Entomology, University of Missouri

### Affiliations

American Association for Professional Apiculturists  
Entomological Society of America  
Eastern Apicultural Society (Life Member)  
International Union for the Study of Social Insects

### Awards and Honors

1<sup>st</sup> Prize, Faculty/Staff, MSU Global Focus Photography Contest, 2010  
2<sup>nd</sup> prize, IX international apiculture photography contest, 2009  
Hambleton Award for Research Excellence in Apiculture, Eastern Apicultural Society, 2008  
The President's Volunteer Service Award, the President's Council on Service & Civic Participation, 2008  
Honorable mentions (2), MSU Global Focus Photography Contest, 2008  
3<sup>rd</sup> prize and honorable mention, MSU Global Focus Photography Contest, 2007  
2<sup>nd</sup> prize, VI international apiculture photography contest, 2006  
Roger A. Morse Apiculture Lecture, Dept Entomology, Cornell University, 2005  
Outstanding Mentor, Siemens Westinghouse Math, Science & Tech. Competition, 2003  
Lilly Teaching Endowment Fellowship (one of 5 university-wide awardees), MSU, 2002  
Senior Visiting Scientist, Xishuangbanna Tropical Botanical Garden, Yunnan, China, 2002  
Best Proposal Award, Michigan Agricultural Experiment Station, MSU, Oct 2001  
[www.cyberbee.net](http://www.cyberbee.net), featured as "Hot Picks" on the journal *Science*, June 2, 2000  
Guest Professorships, Yunnan Agricultural University, 1999-, Institute of Apicultural Research (Beijing), 2000-, China Agricultural University, 2001-  
Induction to Sigma Xi, 1992  
Distinguished Ph.D. Dissertation (top 10 percentile), 1988  
Toronto District Beekeepers' Association Scholarship, 1984, 1986  
The Beatty-Munro Family Memorial Fellowship, University of Guelph, 1984, 1986  
Soden Memorial Fellowship in Agriculture, University of Guelph, 1986  
Gordon F. Townsend Fellowship, University of Guelph, 1986  
University of Guelph Graduate Scholarship, University of Guelph, 1985  
Pre-doctoral Grant, Canadian International Development Agency, 1985-1988  
Davison Travel Grant, University of Guelph, 1984, 1986  
Chinese Educational Commission Overseas Graduate Fellowship, 1983-1984  
Honors B.Sc. Thesis, Hunan Agricultural University, 1981

## Publications

### Refereed Journal Articles

1. **Huang, Z.Y.** 2012. Pollen nutrition affects honey bee stress resistance. Terrestrial Arthropod Reviews 5: 1–15 (Invited review).
2. Liu, Z.Y. Z.L. Wang, W.Y Yan, X.B. Wu, Z.J. Zeng, **Z.Y. Huang**. 2012. The sex determination gene shows no founder effect in the giant honey bee, *Apis dorsata*. PLoS ONE 7(4): e34436. doi:10.1371/journal.pone.0034436
3. Shi, Y. Y., **Z.Y. Huang**, Z.J. Zeng, Z.L. Wang, X.B. Wu, W.Y. Yan. 2011. Diet and cell size both affect queen-worker differentiation through DNA methylation in honey bees (*Apis mellifera*, Apidae). PLoS ONE 6(4): e18808. doi:10.1371/journal.pone.0018808
4. Slone, J.D., T.L. Stout, **Z.Y. Huang**, S.S. Schneider. 2011. The influence of drone physical condition on the likelihood of receiving vibration signals from worker honey bees, *Apis mellifera*. Insectes Sociaux DOI 10.1007/s00040-011-0195-5
5. Leniaud, L., E. Darrouzet, K. Ahn, F. Dedeine, **Z.Y. Huang**, A.-G. Bagnères. 2011. Ontogenetic potentialities of the worker caste in two sympatric subterranean termites. Evolution and Development. 13: 138-148 DOI: 10.1111/j.1525-142X.2011.00464.x
6. Luo C.W., **Z.Y. Huang**, X.M. Chen, K. Li, Y. Chen, Y. Y. Sun. 2011. Contribution of diurnal and nocturnal insects to the pollination of *Jatropha curcas* in Southwest China. J. Economic Entomology. 104: 149-154 DOI: 10.1603/EC10265
7. Tibbetts, E.A., A. Izzo, **Z.Y. Huang**. 2010. Behavioral and physiological factors associated with juvenile hormone in *Polistes* wasp queens. Behav Ecol Sociobiol, DOI 10.1007/s00265-010-1126-6
8. Tibbetts, E. A., **Z.Y. Huang**. 2010. The challenge hypothesis in an insect: juvenile hormone is associated with reproductive conflict following queen loss in *Polistes* wasps. The American Naturalist 176: 123-130
9. Chen, Y.P., **Z.Y. Huang**. 2010. *Nosema ceranae*, a newly identified pathogen of *Apis mellifera* in the U.S. and Asia. Apidologie 41: 364-374 (Invited review)
10. Izzo A, M. Wells, **Z.Y. Huang**, Z, E. Tibbetts. 2009. Cuticular hydrocarbons correlate with fertility, not dominance, in a paper wasp, *Polistes dominulus*. Behav Ecol Sociobiol 64: 857–864, doi:10.1007/s00265-010-0902-7
11. Johnson, R.M., **Z.Y. Huang**, M.R. Berenbaum. 2009. Role of detoxification in *Varroa destructor* (Acari: Varroidae) tolerance of the miticide tau-fluvalinate. International J Acarology, 36: 1-6
12. Navajas, M., D.L. Anderson, J. Clement, **Z.Y. Huang**, T. Zhou, L.I. de Guzman, Y. Le Conte. 2009. New Asian types of *Varroa destructor* represent new threats for world apiculture. Apidologie 40: 181-193
13. Du, Y., Y. Nomura, Z. Liu, **Z.Y. Huang**, K. Dong. 2009. Functional expression of an arachnid sodium channel reveals residues responsible for tetrodotoxin resistance in invertebrate sodium channels. Journal of Biological Chemistry 284: 33869-75
14. Wegener, J., **Z.Y. Huang**, M.W. Lorenz, K. Bienefeld. 2009. Regulation of hypopharyngeal gland activity and oogenesis in honey bee (*Apis mellifera*) workers. Journal of Insect Physiology 55:716-725

15. Kou, R., S.-Y. Chou, **Z.Y. Huang**, R.-L. Yang. 2008. Juvenile hormone levels are increased in winners of cockroach fights. Hormones and Behavior 54: 521-527
16. Kou, R., H.-W. Chang, **Z.Y. Huang**, R.-L. Yang. 2008. Pheromone, juvenile hormone, and social status in the male lobster cockroach *Nauphoeta cinerea*. Archives of Insect Biochemistry and Physiology 68: 144-155
17. Duan, J.J, M. Marvier, J. Huesing, G. Dively, **Z.Y. Huang**. 2008. A meta-analysis of effects of Bt crops on honey bees (Hymenoptera: Apidae). PLOS ONE 3(1): e1415. doi:10.1371/journal.pone.0001415
18. Chow, S.-Y, **Z.Y. Huang** , S.-C. Chen, R.-L. Yang, R. Kou. 2007. Antenna contact and agonism in the male lobster cockroach, *Nauphoeta cinerea*. Hormones and Behavior 52: 252-260
19. Wharton, K.E., F.C. Dyer, **Z.Y. Huang**, T. Getty. 2007. The role of the honey bee queen in regulating colony drone production. Behavioral Ecology 18: 1092-1099 (featured in Science)
20. Cho, S., **Z.Y. Huang**, J. Zhang. 2007. Sex-specific splicing of the honey bee doublesex gene reveals 300 million years of evolution at the bottom of the insect sex-determination pathway. Genetics 177: 1733-41
21. **Huang, Z.Y.** 2007. Honey bee genome: the untold story. Chinese Bulletin of Entomology 44: 5-9
22. Liu, Z., J. Tan, **Z.Y. Huang**, K. Dong. 2006. Effect of a fluvalinate-resistance-associated sodium channel mutation from varroa mites on cockroach sodium channel sensitivity to fluvalinate, a pyrethroid insecticide. Insect Biochemistry and Molecular Biology 36: 885-889
23. Cho, S., **Z.Y. Huang**, D.R. Green, D.R. Smith, and J. Zhang. 2006. Evolution of the complementary sex-determination gene of honey bees: balancing selection and trans-species polymorphisms. Genome Research 16: 1366-1375
24. **Huang, Z.Y.**, J. Zhao, L. Zhou, Y. Qin. 2006. Electronic monitoring of feeding behavior of *Varroa* mites on honey bees. Journal of Apicultural Research 45(3): 157-158
25. Yang, L., Y-C. Qin, D.-L. Song, **Z.Y. Huang**. 2006. An overview of the melatonin and its application in entomology. Chinese Bulletin of Entomology 43: 163-168 (in Chinese)
26. Zeng, Z., **Z.Y. Huang**, Y. Qin and H. Pang. 2005. Hemolymph juvenile hormone titers in worker honey bees under normal and pre-swarming conditions. Journal of Economic Entomology 98: 274-278
27. Tan, J., Z. Liu, R. Wang, **Z.Y. Huang**, A.C. Chen, M. Gurevitz, K. Dong. 2005. Identification of amino acid residues that are critical for pyrethroid binding to an insect sodium channel. Molecular Pharmacology 67: 513-522
28. Leoncini, I., Y. Le Conte, G. Costagliola, E. Plettner, A.L. Toth, M. Wang, **Z. Huang**, J-M. Bécard, D. Crauser, K.N. Slessor, G.E. Robinson. 2004. Regulation of behavioral maturation in honey bees by a new primer pheromone. Proceedings of National Academy of Sciences USA 101: 17561-17564. [cited in Science, Science News, MSU news, Medical Daily etc]
29. Schneider, S.S., L. A. Lewis, **Z.Y. Huang**. 2004. The vibration signal and juvenile hormone titers in worker honey bees, *Apis mellifera*. Ethology 110: 977-985

30. **Huang, Z.Y.**, A.V. Hanley, W. Pett, J.J. Duan. 2004. Field and semi-field evaluation of impacts of transgenic canola pollen on survival and development of worker honey bees. Journal of Economic Entomology 97: 1517-1523
31. Zhou, T., D.L. Anderson, **Z.Y. Huang**, S. Huang, J. Yao, T. Ken, Q. Zhang. 2004. Identification of *Varroa* mites infesting *Apis cerana* and *Apis mellifera* in China. Apidologie 35: 645-654
32. Lin, H., C. Dusset, **Z.Y. Huang**. 2004. Short-term changes in juvenile hormone titres in honey bee workers due to stress. Apidologie 35: 319-327
33. Li, X., **Z.Y. Huang**, Y. Qin, D. Song. 2004. Bio-assay methods of melatonin. Chinese Bulletin of Entomology 42: 109-112 (in Chinese)
34. Hanley, A.V., **Z.Y. Huang**, W. Pett. 2003. Effect of transgenic Bt corn pollen on larval development of honey bee (*Apis mellifera* L.) and greater wax moth (*Galleria mellonella* L.). Journal of Apicultural Research 42: 77-81
35. Wang, R., **Z.Y. Huang**, K. Dong. 2003. Molecular characterization of an arachnid sodium channel gene from the varroa mite (*Varroa destructor*). Insect Biochemistry and Molecular Biology 33: 733-739
36. **Huang, Z.Y.**, J.H. Fewell. 2002. Modeling insect societies: from genes to colony behavior. Trends in Ecology and Evolution 17: 403-404
37. Wang, R., Z. Liu, K. Dong, P.J. Elzen, J. Pettis, **Z.Y. Huang**. 2002. Association of novel mutations in a sodium channel gene with fluralinate resistance in the varroa mite, *Varroa destructor*. Journal of Apicultural Research 40: 17-25
38. Schulz, D.S., M.J. Vermiglio, **Z.Y. Huang**, G.E. Robinson. 2002. Effects of colony food shortage on social interactions in honey bee colonies. Insectes Sociaux 49: 50-55
39. Beshers, S.N., **Z.Y. Huang**, Y. Oono, G.E. Robinson. 2001. Social inhibition and the regulation of temporal polyethism in honey bees. Journal of Theoretical Biology 213: 461-479
40. Pearce, A.N., **Z.Y. Huang**, M.D. Breed. 2001. Juvenile hormone and aggression in honey bees. Journal of Insect Physiology 47: 1243-1247
41. Jassim, O., **Z.Y. Huang**, G.E. Robinson. 2000. Juvenile hormone profiles of worker honey bees during normal and accelerated behavioral development. Journal of Insect Physiology 46: 243-249
42. Bloch, G., D.W. Borst, **Z.-Y. Huang**, G.E. Robinson, A. Hefetz. 2000. Haemolymph JH titer, biosynthesis rates, ovarian development and the social environment in *Bombus terrestris*. Journal of Insect Physiology 46: 46-57
43. Giray, T., **Z.-Y. Huang**, G.E. Robinson. 1999. Endocrine basis of genetic differences for behavioral development in honey bees. Behavioral Ecology & Sociobiology 47: 17-28
44. **Huang, Z.-Y.**, E. Plettner, G.E. Robinson. 1998. Effect of social environment and mandibular gland removal on division of labor in worker honey bees. Journal of Comparative Physiology B 183: 143-152

45. Pankiw, T., **Z.-Y. Huang**, M.L. Winston, G.E. Robinson. 1998. Queen mandibular gland pheromone influences worker honey bee (*Apis mellifera* L.) juvenile hormone titers and foraging ontogeny. Journal of Insect Physiology 44: 685-692
46. Schulz, D.J., **Z.-Y. Huang**, G.E. Robinson. 1998. Effect of colony food shortage on the behavioral development of the honey bee, *Apis mellifera*. Behavioral Ecology & Sociobiology 42: 295-303
47. Robinson, G.E., **Z.-Y. Huang**. 1998. Colony integration in honey bees: genetic, endocrine, and social control of division of labor. Apidologie 29: 159-170 (Invited review)
48. Trumbo, S.T., **Z.-Y. Huang**, G.E. Robinson. 1997. Division of labor between undertaker specialists and other middle age workers in honey bee colonies. Behavioral Ecology & Sociobiology 41: 151-163
49. Cnaani, J., D.W. Borst, **Z.-Y. Huang**, G.E. Robinson, A. Hefetz. 1997. Caste determination in *Bombus terrestris*: differences in larval development and rates of JH biosynthesis. Journal of Insect Physiology 43: 373-381
50. **Huang, Z.-Y.**, G.E. Robinson. 1996. Regulation of honey bee division of labor by colony age demography. Behavioral Ecology & Sociobiology 39: 147-158
51. Bloch, G., D. W. Borst, **Z.-Y. Huang**, G.E. Robinson, A. Hefetz. 1996. Effects of social conditions on juvenile hormone-mediated reproductive development in *Bombus terrestris* workers. Physiological Entomology 21: 257-267
52. **Huang, Z.-Y.**, G.E. Robinson. 1995. Seasonal changes in juvenile hormone in worker honey bees. Journal of Comparative Physiology B 165: 18-28
53. Robinson, G.E., R.E. Page, **Z.-Y. Huang**. 1994. Temporal polyethism in social insects is a developmental process. Animal Behavior 48: 467-469
54. **Huang, Z.-Y.**, G.E. Robinson, D.W. Borst. 1994. Physiological correlates of division of labor among similarly aged honey bees. Journal of Comparative Physiology A 174: 731-739
55. Goodman, W.G., **Z.-Y. Huang**, G.E. Robinson, C. Strambi, A. Strambi. 1993. A comparison of two juvenile hormone radioimmunoassays. Archives of Insect Biochemistry & Physiology 23: 147-152
56. **Huang, Z.-Y.**, G.E. Robinson. 1992. Honey bee colony integration: Worker-worker interactions mediate plasticity in endocrine and behavioral development. Proceedings of the National Academy of Sciences USA 89: 11726-11729 (cited in the text book "Animal Behavior" by J. Alcock)
57. Robinson, G.E., C. Strambi, A. Strambi, **Z.-Y. Huang**. 1992. Reproduction in worker honey bees is associated with low juvenile hormone titres and rates of biosynthesis. General & Comparative Endocrinology 87: 471-480
58. **Huang, Z.-Y.**, G.E. Robinson, S.S. Tobe, K.J. Yagi, C. Strambi, A. Strambi, B. Stay. 1991. Hormonal regulation of behavioral development in the honey bee is based on changes in the rate of juvenile hormone biosynthesis. Journal of Insect Physiology 37: 733-741
59. **Huang, Z.-Y.**, G.W. Otis. 1991. Inspection and feeding of larvae by worker honey bees (Hymenoptera: Apidae): Effect of starvation and food quantity. Journal of Insect Behavior 4: 305-317

60. **Huang, Z.-Y.**, G.W. Otis. 1991. Non-random visitation of brood cells by worker honey bees (Hymenoptera: Apidae). Journal of Insect Behavior 4: 177-184
61. **Huang, Z.-Y.**, C.O. Knowles. 1991. Nicotinic and muscarinic cholinergic receptors in honey bee (*Apis mellifera*) brain. Comparative Biochemistry & Physiology C 97: 275-281
62. **Huang, Z.-Y.**, C.O. Knowles. 1990. Properties of a quinuclidinyl benzilate binding component in the bulb mite. Comparative Biochemistry & Physiology C 95: 71-77
63. **Huang, Z.-Y.** 1990. A simple *in vivo* bioassay for estimating the hypopharyngeal gland activity in honeybees (*Apis mellifera* L, Apidae, Hymenoptera). Journal of Apicultural Research 29: 75-81
64. **Huang, Z.-Y.**, G.W. Otis, P.E.A. Teal. 1989. Nature of brood signal activating the protein synthesis of hypopharyngeal gland in honey bees, *Apis mellifera* (Apidae: Hymenoptera). Apidologie 20: 455-464
65. **Huang, Z.-Y.**, G.W. Otis. 1989. Factors determining hypopharyngeal gland activity of worker honey bees (*Apis mellifera* L.). Insectes Sociaux 36: 264-276

#### **Book Reviews**

66. **Huang, Z.Y.**, 2010. Hives of activity and equality, for the book "Honeybee Democracy" by Thomas D. Seeley. Times Higher Education, 2010 Oct: 54
67. **Huang, Z.Y.**, 2009. "Form and Function in the Honey Bee," book review. American Entomologist 55: 267-268

#### **Patent**

68. **Huang, Z.Y.** 2002. "Method and apparatus for control of mites in a beehive," US Patent #6,475,061 (Other countries: China and the European Union). (featured on Kalamazoo News Gazette, Bee World, and The Speedy Bee)

#### **Book Edited**

69. Liu, J., R. Wang, Z. Ouyang, S. Hu, **Z.-Y. Huang**, W. Cheng, Y. Wu. 1992. Advances & Trends in Modern Ecology. China Science & Technology Press, Beijing, China. pp 396

#### **Book Chapters**

70. **Huang, Z.Y.** 2008. The colony collapse disorder crisis for honey bees. In Encyclopedia of Life Science, Vol. 1, (ed K. E. Cullen). Facts On File, New York , pp 15-18.
71. Le Conte, Y., Z.Y. **Huang**, G.E. Robinson. 2008. "Quorum sensing" in honeybees: Pheromone regulation of division of labor. In (eds: S.C. Winans, B.L. Bassler) Chemical Communication among Bacteria. ASM Press, Washington DC. Chapter 30, pp 463-468
72. **Huang, Z.Y.** 2007. Beekeeping in various parts of the world: China. In (eds: H. Shimanuki, K. Flottum, A. Harman). The ABC and XYZ of Bee Culture: An Encyclopedia of Beekeeping. 92-93. The A.I. Root Company, Medina, OH
73. **Huang, Z.-Y.**, G.E. Robinson. 1999. Social control of division of labor in honey bee colonies. In (eds: C. Detrain, J.L. Denoubourg, J.M. Pasteels) Information Processing in Social Insects. Birhauser, pp 165-186
74. **Huang, Z.-Y.** 1999. Regulation of division of labor in worker honey bees: the activator-inhibitor model. In (eds: L.J. Connor, R. Hoopingartner) Apiculture in the 21st Century. Wicwas Press, pp 25-37

75. **Huang, Z.-Y.** 1992. Advances in honey bee ecology. In: (eds: J.G. Liu et al.) Advances and Trends in Modern Ecology. (In Chinese) pp 187-206

### **Conference Proceedings**

76. Liu, Z.Y., Z.L. Wang, W. Y. Yan, X. B. Wu, Z. J. Zeng, Z.Y. Huang 2011. The sex determination gene in giant honey bees (*Apis dorsata*) shows no founder effect. Honey Bee Genomics & Biology, Cold Spring Harbor Laboratory, NY. p31, Abstract.
77. **Huang, Z. Y.** 2010. Flexibility of division of labor in honey bees: all explained by a simple model. Fourth European Conference of Apidology. p 67. Abstract.
78. **Huang, Z. Y.**, T. Zhou, X. Xie, S. Huang, D. Anderson, Y. Le Conte, Z. Zeng 2010. "varroa mite reproductive biology. Fourth European Conference of Apidology. p 39. Abstract.
79. Huang, Z.Y., K. Ahn, J. Riddle, J. Pettis. 2010. Effect of transportation on honey bee physiology. Proceedings of the American Bee Research Conference, American Bee Journal 150: 502-503. Abstract
80. Fu, Y-L, **Z.Y. Huang**. 2008. *Nosema* control by thymol and other essential oils. Almond Board of California, 2008 Proceedings, pp 172-175
81. Xie, X. **Z. Y. Huang**. 2008. Family planning in varroa mites: why prefer nurses? The 9<sup>th</sup> Asian Apicultural Association Conference Abstracts, p 104. Abstract
82. Wharton, K.E., F.C. Dyer, **Z. Y. Huang**, T. Getty. 2006. Drone regulation in honeybee colonies: a case for queen-worker cooperation? Scientific Proceedings of International Union for the Study of Social Insects Congress XV. pp 238-239. Abstract
83. Cho, S., **Z.Y. Huang**, D. Smith and J. Zhang. 2006. "Evolution of sex determination gene in the honey bees," Scientific Proceedings of International Union for the Study of Social Insects Congress XV. p169. Abstract
84. Leniaud, L., M. Kutnik, A. Pichon, S. Dupont, **Z.Y. Huang**, and A.G. Bagnères. 2006. "Ontogenic potentialities and caste differentiation in the *Reticulitermes* worker caste," Scientific Proceedings of International Union for the Study of Social Insects Congress XV. p168. Abstract
85. **Huang, Z.Y.**, R. Lin. 2004. JH titers, biosynthesis and metabolism in honey bee workers infected by a microsporidia parasite, *Nosema apis*. Eighth International Conference on the Juvenile Hormones, Scientific Program Abstracts, p12, Abstract
86. Qin, Y., **Z.Y. Huang**. 2004. Dynamics of *Nosema* spores in honey, beeswax and their relationship to worker infection. Proceedings of the American Bee Research Conference, American Bee Journal 144: 406-407, Abstract
87. Zhou, T., D. Anderson, **Z.Y. Huang**, S. Huang, J. Yao, K. Tan, Q. Zhang. 2004. Absence of *Varroa jacobsoni* in mites infesting *Apis cerana* and *Apis mellifera* in China. In (Eds E.N. Camaya, C.R. Cervencia) Proceedings of the 7<sup>th</sup> Asian Apicultural Association Conference & 10<sup>th</sup> Beenet Symposium and Technofora, pp 187-192
88. Wang, R., K. Dong, **Z.Y. Huang**, P.J. Elzen, J. Pettis. 2002. Resistance mechanism of *Varroa jacobsoni* to fluvalinate: altered sodium channel? In (Eds: E.H. Erickson, R.E. Page Jr and A.A. Hanna) Proceedings of the 2nd International Conference on Africanized Honey Bees and Bee Mites. pp 173-176

89. **Huang, Z.Y.** 2001. Mitezapper: a new device for varroa mite control. Proceedings of Apimondia Congress, Durban, South Africa, p. 54
90. Zhou, T., J. Yao, S.X. Huang, **Z.Y. Huang**. 2001. Larger cell size reduces varroa mite reproduction. Proceedings of the American Bee Research Conference, American Bee Journal 141: 895-896. Abstract
91. **Huang, Z.Y.**, H.O. Kuang, B.Y. Kuang, Y. Qin. 2001. Juvenile hormone and division of labor in *Apis cerana*. Proceedings of 7th International Bee Research Association Conference and Asian Apicultural Association Conference, Thailand, 2000. Journal of Apicultural Research 40 (supplement): 3-6
92. Schmidt-Bailey, J., D. Westervelt, **Z.Y. Huang**. 2000. The Spartan Beetle Buster: testing of a new method for surveying the small hive beetle. Proceedings of the American Bee Research Conference, American Bee Journal 140: 907. Abstract
93. Wang, R., D. Ke, P.J. Elzen, J. Pettis, **Z.Y. Huang**. 2000. Altered sodium channel as a possible resistance mechanism of *Varroa jacobsoni* to flouvalinate. Proceedings of the American Bee Research Conference, American Bee Journal 140: 747. Abstract
94. **Huang, Z. Y.**, R. Wang. 1999. Nosema disease and division of labor in honey bees. Proceedings of XXXVI Congress of Apimondia, Vancouver, Canada, p102. Abstract
95. **Huang, Z.-Y.**, G.E. Robinson. 1998. Regulation of onset of foraging in honey bees: a worker primer pheromone in the mandibular glands? Proceedings of the American Bee Research Conference, American Bee Journal 138: 297. Abstract
96. **Huang, Z.-Y.**, G.E. Robinson. 1994. Seasonal changes in juvenile hormone levels in worker honey bees (*Apis mellifera*). In: (eds: A. Lenoir, G. Arnold & M. LePage) Les Insectes Sociaux. Proceedings of the 12th Int'l Congress of IUSSI, 1994, Paris, France, p236. Abstract
97. **Huang, Z.-Y.**, C.O. Knowles. 1990. Nicotinic and muscarinic cholinergic receptors associated with honey bee neural membranes. In: (eds: B. Veeresh, Mallik & C.A. Viraktamath) Social Insects and the Environment. Proceedings of the 11th Int'l Congress of IUSSI, 1990, Bangalore, India, p 463. Abstract
98. **Huang, Z.-Y.**, G.W. Otis. 1989. Hunger signal from larvae of honey bees (*Apis mellifera* L.). Proceedings of Chinese Association of Agricultural Students & Scholars 1st Conference, 1989. Cornell Univ. Ithaca, NY, p 133. Abstract
99. **Huang, Z.-Y.**, G.W. Otis. 1986. Mechanism of hypopharyngeal gland activation in honey bees (*Apis mellifera*). In: (eds: J. Eder, H. Rembold) Chemistry and Biology of Social Insects. Proceedings of the 10th International Congress of IUSSI, 1986, Munich, Germany, p 224. Abstract

#### ***Extension Publications and Popular Articles***

100. **Huang, Z.Y.**, 1997-2012. Website design and contents for <http://cyberbee.msu.edu>, over 700 photos, and over 40 pages of information related to honey bees. Average 5-6 million hits/year
101. **Huang, Z.Y.** 2012. Apricots, plums and boxelders. <http://www.michiganbees.org/2012/apricots-plums/>
102. **Huang, Z.Y.** 2012. Do bees forage on peonies? <http://www.michiganbees.org/2012/peonies/>

103. **Huang, Z.Y.** 2012. Crabapples Blooming in East Lansing, Michigan.  
<http://www.michiganbees.org/2012/crabapples/>
104. **Huang, Z.Y.** 2012. Western and Eastern honey bees foraging on peach flowers.  
<http://www.michiganbees.org/2012/peach>
105. **Huang, Z.Y.** *Apis dorsata* paper and photos. <http://www.michiganbees.org/2012/apis-dorsata/>.
106. **Huang, Z.Y.** 2012. Honey bees foraging on magnolia flowers.  
<http://www.michiganbees.org/2012/magnolia/>
107. **Huang, Z.Y.** 2012. Cherry blossoms and honey bees. <http://www.michiganbees.org/2012/cherry/>
108. **Huang, Z.Y.** 2012. Feeding bees in winter. <http://www.michiganbees.org/2012/winter-feeding>
109. **Huang, Z.Y.** 2012. The Harvard bee, *Davidia* and spicy honey .  
<http://www.michiganbees.org/2012/harvardbee/>
110. **Huang, Z.Y.** 2012. Bee feeding – trophallaxis. <http://www.michiganbees.org/2012/trophallaxis/>
111. **Huang, Z.Y.** 2012. First foragers of 2012. <http://www.michiganbees.org/2012/first-foragers/>
112. **Huang, Z.Y.** 2012. Flowers and Bees from NCSU and Duke Gardens.  
<http://www.michiganbees.org/2012/ncsu/>
113. **Huang, Z.Y.**, 2011. Effects of *Nosema* on honey bee behavior and physiology. *American Bee Journal* 151: 871-874. *Bee Culture* 138: 21-24. On line:  
<http://www.extension.org/pages/60674/effects-of-nosema-on-honey-bee-behavior-and-physiology>
114. **Huang, Z.Y.** W. Pett. 2011. An update on Colony Collapse Disorder and how to get the best pollination this season. [http://msue.anr.msu.edu/news/honey\\_bee\\_update\\_and\\_fruit\\_pollination](http://msue.anr.msu.edu/news/honey_bee_update_and_fruit_pollination)
115. **Huang, Z.Y.** W. Pett. 2011. Honey bee update and fruit pollination.  
<http://www.michiganbees.org/2011/honey-bee-update/>
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152. **Huang, Z.Y.**, W. Pett. 2004. Pollination of vine crops. Great Lakes Fruit, Vegetable & Farm Market Expo, Abstract (<http://www.glexpo.com/abstracts/2003abstracts/vinecrop.pdf>)
153. Smith, L., **Z.Y. Huang**. 2004. Another job for busy bees: Honey bees are the perfect choice for vectoring biocontrol agents. Bee Culture 132: 46-49
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166. **Huang, Z.Y.** 2001. MiteZapper - a new and effective method for varroa mite control. American Bee Journal. 141: 730-732
167. **Huang, Z.Y.**, H. Lin. 2001. The small hive beetle – a new pest of honey bees in the United States. Newsletter of the Michigan Entomological Society 46: 5, 8
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170. **Huang, Z.Y.** 1999. Fruit trees and honey bees in 1999. Fruit Crop Advisory Team Alert, Michigan State University 14: 2-3
171. Hansen, M., **Z.Y. Huang**. 1999. Small hive beetle (*Aethina tumida*) now in Michigan! Extension pamphlet
172. **Huang, Z.Y.** 1999. My first year at MSU. Michigan Beekeepers Association Newsletter, Fall Issue

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### **Invited Panels**

1. Potential Risks of Plant Protection Products to Pollinators: A SETAC Pellston Workshop, Pensacola Beach, FL, Jan 2011
2. Plant Science Innovative Team Group Meeting, Guangzhou, China, 2009, 2010
3. Nosema Disease: Lack of Knowledge and Work Standardization, Guadalajara, Spain, Oct 2009
4. EPA/USDA Science Panel on honey bee pesticide chronic toxicity laboratory and field testing, Arlington, VA, July 2009
5. USDA honey bee research lab five year plan review panel (year un-presented to remain anonymous)

### **Presentations**

#### ***Symposium Presentations (Invited)***

1. "Flexibility of division of labor in honey bees: all explained by a simple model". Fourth European Conference in Apidology, Ankara, Turkey, Sept 2010
2. "Varroa mite reproductive biology". Plenary Talk, Fourth European Conference in Apidology, Ankara, Turkey, Sept 2010 (with T. Zhou, X. Xie, D. Anderson, Y. Le Conte, S. Huang, Z. Zeng, A.-G. Bagnères)
3. "Relay learning in honey bees and pesticide interactions," E-Presentation to the CCD Steering Committee Meeting, Feb, 2010.
4. "Varroa mite can mimic host hydrocarbons". Plenary Talk, National Honey Bee Protection Conference, China, Oct 2010 (with T. Zhou, X. Xie, D. Anderson, Y. Le Conte, S. Huang, Z. Zeng, A.-G. Bagnères)
5. "Update on the honey bee larval rearing assay," in the Symposium "Regulation of Transgenic Crops: The State of the Science" Entomological Society of America, Indianapolis, IN, Dec 2009
6. "How *Nosema apis* affect honey bee foraging," Plenary Talk at the COLOSS Workshop "Nosema Disease: Lack of Knowledge and Work Standardization", Guadalajara, Spain, Oct 2009
7. Effect of transportation on honey bee physiology," North American Pollinator Protection Campaign Conference, Washington DC, Oct 2008
8. "Standardized laboratory assay for assessing effects on honey bee larvae," Symposium: Harmonizing laboratory methods to evaluate potential effects of GM crops on non-target arthropods, Entomological Society of America, San Diego, CA, Dec 2007
9. "Effect of mitezapper on varroa mite population, a field test," Apimondia Conference, Melbourne, Australia, Sept 2007

10. "Regulation of division of labor in honey bees, from humans to bees, and back," Program Symposium Contribution of Social Insect Studies to Science and Society, Entomological Society of America, Indianapolis, IN, Dec 2006
11. "Regulation of Foraging Age in Honey Bees by a Primer Pheromone," International Entomology Symposium, Beijing, China, August 2006
12. "Does the parasite *Nosema apis* manipulate host behavior through juvenile hormone?" International Entomology Symposium, Beijing, China, August 2006
13. "Absence of *Varroa jacobsoni* in *Apis mellifera* and *A. cerana* in China," 7<sup>th</sup> Asian Apicultural Association Conference, Laguna, Philippines, Feb 2004 (With D. Anderson, T. Zhou, S.X. Huang, J. Yao and Q. Zhang)
14. "Modeling Nosema disease in honey bee colonies," Symposium on Epizootiological Models held at the Annual meeting of the Soc. for Invertebrate Pathology, Burlington, VT, Aug 2003 (With D Onstad and D. Crowder)
15. "Change of honey bee social behavior caused by a microsporidian parasite: physiological mechanisms," Section C Symposium "Parasites, Pathogens and Insect Sociality," Annual Meeting of Entomological Society of America, Fort Lauderdale, FL, Nov 2002 (with R. Lin)
16. "Mitezapper: a new device for varroa mite control," XXXVII International Apicultural Congress, Durban, South Africa, October 2001
17. "Social inhibition of foraging honey bees," Santa Fe Institute Social Insects Working Group, Santa Fe, NM Oct 2000
18. "Juvenile hormone and division of labor in *Apis cerana*," 7th IBRA conference on tropical bees: management and diversity & 5th Asian apiculture association conference, Chiangmai, Thailand, Mar 2000
19. "Regulation of onset of foraging in honey bee workers," Apimondia Conference, Vancouver, Canada, Sept 1999
20. Informal conference "Career development for Chinese entomologists," Annual Meeting of Entomological Society of America, Las Vegas, NE, Dec 1998
21. Endocrine Control of Social Behavior in Invertebrates, Animal Behavior Society Meeting, Carbondale, IL, July 1998
22. Apiculture for the 21st Century, International Symposium, E. Lansing, MI, June 1997
23. The 12th International Congress of IUSSI, Paris, France, Aug 1994 (with G.E. Robinson)
24. Annual Meeting of Entomological Society of America, Baltimore, MD, Dec 1992 (with G.E. Robinson)
25. The 3rd International Congress of Neuroethology, McGill University, Montreal, Canada, Aug 1992 (with G.E. Robinson)

***Presentations at Institutions (Invited)***

2012: Fujian Agricultural University, Fuzhou, China  
 Jiangxi Agricultural University, Nanchang, China

- Jilin Apicultural Research Institute, Jilin, China (4 talks)
- 2011: Fujian Agricultural University, Fuzhou, China  
 Henan College of Science and Technology, Xinxiang, China  
 Hunan Agricultural University, Changsha, China  
 Zhejiang University, Hangzhou, China  
 Jiangsu Academy of Agricultural Sciences, Nanjing, China  
 Zhejiang Academy of Agricultural Sciences, Hangzhou, China
- 2010: Pellstone SETEC workshop, FL  
 Zhejiang University, Hangzhou, China  
 Jiangxi Agricultural University, Jiangxi, China (2 talks)  
 Horticulture Research Institute, Shang'xi Academy of Agricultural Sciences  
 Institute of Resource Insects, Academy of Agricultural Sciences, China (2 talks)
- 2009: Sydney University, Australia  
 Macquarie University, Australia  
 Commonwealth Scientific and Industrial Research Organization, Australia  
 Sichuan University (2 talks), Nanchang University (2 talks), China  
 Xishuanbanna Tropical Botanical Garden, China
- 2008: Zhejiang University Honey Bee Lab (S.K. Su), 4 talks, Hangzhou, China  
 Zhejiang University, Zoological Institute, Hangzhou, China  
 Jiangxi Agricultural University, Honey Bee Institute, Nanchang, China  
 Shanghai Institute of Plant Physiology and Ecology, Shanghai, China  
 Hunan Agricultural University, College of Life Sciences, Changsha, China  
 Zhongshan University, Environmental Group (B.C. Xia), Guangzhou, China
55. "Does *Nosema apis* manipulate honey bee behavior through JH production?" Social Insect Research Group, Arizona State University, March 2008
56. "Honey bees, juvenile hormone and *Nosema apis*, Is it really host manipulation?" Institut de Recherche sur la Biologie de l'Insecte, Université de Tours, France, Jan 2008
57. "Does *Nosema apis* manipulate honey bee hosts via juvenile hormone?" Department of Entomology, University of Maryland, Oct 2007.
58. "Evolutionary ecology of the complementary sex determination gene in honey bees," Department of Entomology, China Agricultural University, Sept 2007
59. "Importance of honey bees in Michigan agriculture and threats they face," Plant Coalition, Michigan State University, June 2007
60. "Honey bees: overview of honey bee research at MSU bee biology lab," Department of Horticulture, Michigan State University, April 2007
61. "Insect portraiture, two perspectives," Department of Entomology, Michigan State University, East Lansing, MI, Feb 2007 (with David Cappaert)
62. Resistance mechanisms of varroa mites to chemicals," Jilin Apicultural Institute, Jilin, China, August 2006
63. "Evolution of the complementary sex-determination gene of honey bees," Jilin Apicultural Institute, Jilin, China, August 2006

64. "Mitezapper as a control method for varroa mites," Jilin Apicultural Institute, Jilin, China, August 2006
65. "Honey bee research in the United States," Jilin Apicultural Institute, Jilin, China, August 2006
66. "Honey bee research and extension at MSU," Jilin Apicultural Institute, Jilin, China, August 2006
67. "Honey bee queen regulates egg gender when presented only drone cells," Rothenbuler Bee Laboratory, Ohio State University, Columbus, OH, June 2006
68. "Mechanism of Division of labor in honey bees," College of Life Sciences, Tunghai University, Taichung, Taiwan, Mar 2006
69. "Mechanism of Division of labor in honey bees," Department of Entomology, National Chung Hsing University, Taichung, Taiwan, Mar 2006
70. "Mechanism of Division of labor in honey bees," Department of Entomology, National Taiwan University, Taiwan, Mar 2006
71. "Does nosema parasite produce juvenile hormone to manipulate honey bee behavior," Institute of Cellular and Organismal Biology, Academia Sinica, Taipei, Taiwan, Mar 2006
72. "Advances of insect pollination inside greenhouses," Institute of Vegetable and Flower Researches, Chinese Academy of Agricultural Sciences, Beijing, China, Mar 2006
73. "Honey bee research at MSU," College of Life Science, Sun Yat-Sen University, Guangzhou, China, Feb 2006
74. "Honey bee research at MSU," Bee Research Center, Guangdong Province Institute of Entomological Research, Guangdong, China, Feb 2006
75. "Regulation of division of labor in honey bees," College of Agronomy, Tropical Agricultural University of South China, Hainan, China, Feb 2006
76. "Regulation of division of labor by a primer pheromone: how a simple model played the big role," Roger A. Morse Apiculture Lecture, Department of Entomology, Cornell University, Dec 2005
77. "Research Experience with honey bees and vision for insect pollination biology," USDA Solitary Bee Lab, Logan, UT, July 2005
78. "Working with honey bees, the past, the present and the future," USDA Honey Bee Lab, Weslaco, TX, June 2005
79. "Social modulation of foraging age in worker honey bees", Department of Biological Sciences, East Tennessee State University, Johnson City, TN, Sept 2004
80. "Regulation of foraging age in honey bees," Honey Bee Research Institute, Jiangxi Agricultural University, Nanchang, Jiangxi, China, April 2004
81. "Honey bee extension, teaching and research at the Michigan State University," Honey Bee Research Institute, Jiangxi Agricultural University, Nanchang, Jiangxi, China, April 2004

82. "Working with bees and their keepers, the Michigan experience," Department of Environmental Biology, University of Guelph, Guelph, Ont, Canada, Feb 2004
83. "Effect of transgenic corn pollen on honey bees and their pest," Dept. of Natural Resources and Environmental Sciences, University of Illinois, Oct 2003
84. "Honey bee queens regulate sex ratio by overriding a highly stereotyped behavioral program," Brain and Behavioral Group, MSU, Sept 2003
85. "Working with honey bees and their keepers: A five year summary," Department of Entomology, MSU, Sept 2003
86. "Let us bee social – what do we know about honey bee sociobiology," Xishuangbanna Tropical Botanical Garden, Yunnan, China, Apr 2002
87. "*Apis cerana* in China and how do they resist the varroa mites," Ecology of Invertebrates Seminar, National Institute of Agricultural Research in Avignon and the Univ. of Avignon & the Countries of Vaucluse, France, Mar 2002
88. "Resistance mechanisms of varroa mites to chemicals," Ecology of Invertebrates Seminar, National Institute of Agricultural Research in Avignon and the Univ. of Avignon & the Countries of Vaucluse, France, Mar 2002
89. "Melatonin and division of labor in honey bees," Brain and Behavior Group, Neuroscience Program, MSU, Feb 2002
90. "Basic and applied research combined: honey bee projects at MSU," Zoological Institute, Chinese Academy of Sciences, Beijing, China, June 2001
91. "Honey bee research projects at MSU," Department of Entomology, China Agricultural University, June 2001
92. "Mitezapper: a new method for controlling varroa mites," Institute of Apicultural Research, Chinese Academy of Agricultural Sciences, Beijing, China, June. 2001
93. "Basic and applied research combined: honey bee research at MSU," Xishuangbanna Tropical Botanical Garden, Yunnan, China, May 2001
94. "Importance of honey bee pollination for agriculture," International workshop for sustainable agricultural in developing countries," Institute of Pomology, Chinese Academy of Agricultural Sciences, Hebei, China, Aug 2000
95. "Bumble bee biology and commercial rearing," Institute of Vegetable Research, Chinese Academy of Agricultural Sciences, China, Aug 2000
96. "Honey bee research at Michigan State University and North America," Institute of Apicultural Research, Chinese Academy of Agricultural Sciences, Aug 2000
97. "Recent entomological research in North America," Hunan Agricultural University, Dec 1999
98. "Regulation of division of labor in honey bees," Dept of Apiculture, Yunnan Agricultural University, Nov 1999

99. "Regulation of foraging age in honey bee workers," Dept. Entomology, Purdue University, Oct 1999
100. "Regulation of behavioral development in honey bees: genetic physiological, and biochemical mechanisms," Dept. Entomology, Michigan State University, June 1998
101. "Nosema disease: a hidden threat to honey bees," Dept. Entomology, Michigan State University, June 1998
102. Dept. Entomology, Michigan State University, Sept 1997
103. Dept. Biological Sciences, Illinois State University, Feb 1996
104. Hunan Agricultural College, Hunan, China, Dec 1993
105. Honey Bee Research Institute, Academy of Agricultural Science, Beijing, China, Oct 1993
106. Dept. of Plant Protection, Beijing Agricultural University, Beijing, China, Oct 1993
107. Entomological Society of Beijing, Beijing, China, Sept 1993
108. Dept. of Environmental Biology, University of Guelph, Ont, Canada, May 1988
109. Dept. of Entomology, University of Missouri, Columbia, MO, Nov 1988
110. The Dyce Laboratory, Cornell University, Ithaca, NY, Oct 1984

**Contributed Presentations or Posters**

111. "Effect of single species and mixed infection of *Nosema spp.* on worker foraging behavior and longevity," American Bee Research Conference, Greenbelt, MD, Feb 2012 (with J. Adams, A. Jiang)
112. "Using RNAi to hunt genes important for varroa survival and reproduction," American Bee Research Conference Poster, Greenbelt, MD, Feb 2012 (with X. Xie, G. Bian, Z. Xi)
113. "Exploring RNAi as a method for controlling *Varroa destructor*," Almond Board of California Annual Conference Poster, Modesto, CA Dec 2011 (with X. Xie, G. Bian, Z. Xi)
114. "The sex determination gene in giant honey bees (*Apis dorsata*) shows no founder effect," Honey Bee Genomics & Biology Poster, Cold Spring Harbor Laboratory, NY, May 2011 (with Z.Y. Liu, Z.L. Wang, W. Y. Yan, X. B. Wu, Z. J. Zeng)
115. "*Nosema ceranae* and *Nosema apis*: effect of pollen and mixed infections on honey bee mortality," American Bee Research Conference, Galveston, TX, Jan, 2011 (with M. Lundquist, T.V. Tran) (about 50 beekeepers also attended)
116. "Relay effect in landscape learning in honey bees and its use for detecting subtle effects of pesticides," American Bee Research Conference, Galveston, TX, Jan, 2011 (with S. Zhang, N. Kondamuri, J. Shin, M.S. Huang, J. Donowich, A. Nemeth, M.Pahl, Fred Dyer)
117. "A new mode of learning: relay landscape learning in honey bees," Entomological Society of America Annual Meeting, San Diego, CA, Dec 2010 (with S. Zhang, N. Kondamuri, J. Shin, M.S. Huang, J. Donowich, A. Nemeth, M.Pahl, F. Dyer)
118. "Ontogeny of honey bee orientation flights," Entomological Society of America Annual Meeting, San Diego, CA, Dec 2010 (with J. Shin, N. Kondamuri, M. Huang)
119. "Mixed infection of *Nosema apis* and *Nosema ceranae* decreases honey bee survival in cages." Entomological Society of America Annual Meeting, San Diego, CA, Dec 2010 (with M. Lundquist, T.V. Tran)
120. "Preference of phoretic mites for nurses increases Varroa fitness," American Bee Research Conference, Orlando, FL, Jan 15, 2010 (with X. Xie)
121. "Effect of transportation on honey bee physiology," American Bee Research Conference, Orlando, FL, Jan 15, 2010 (with K. Ahn, J. Riddle, J. Pettis)
122. "Transportation physiology of honey bees," Entomological Society of America meeting, Indianapolis, IN. Dec 2009 (with K Ahn, J. Riddle, J. Pettis)
123. "Family planning in varroa mites: why prefer nurses?" The 9<sup>th</sup> Asian Apicultural Association Conference, Hangzhou, China, Nov 2008 (with X. Xie)
124. "Popping the mites: can microwave be used as a method for varroa control?" American Bee Research Conference, Sacramento, CA, Jan 10, 2008 (with Y. Fu)
125. "Caste differentiation and ongetenic potentialities in the subterranean termite genus *Reticulitermes*," XV<sup>ème</sup> Colloque, Physiologie de L'Insectes, 2007 (with L. Leniaud, E. Darronset, A.G. Bagneres)

126. "Functional characterization of the first arachnid sodium channel from the varroa mite," CSREES Arthropods & Nematodes Programs Awardee Poster Session Entomological Society of America meeting, San Diego, CA, December 8, 2007 (with Y. Du, Z. Liu, Y. Numura, K. Dong)
127. "Microwave radiation as a possible control method for Varroa mite (Acari: Varroidae) control in honeybees," Annual Meeting of Entomological Society of America, San Diego, CA, Dec 2007 (with Yulun Fu)
128. "Evolution of sex determination gene in the honey bee," Workshop on Honey Bee Genomics and Biology, Cold Spring Harbor, May 2007 (with S. Cho, D. Smith and J. Zhang)
129. "Effect of Mitezapper on varroa mite populations: a field test," American Bee Research Conference, Phoenix, AZ, Dec 2006
130. "Chemical mimicry by the ectoparasitic mite *Varroa destructor* infesting *Apis cerana* and *Apis mellifera*," Entomological Society of America, Indianapolis, IN, Dec 2006 (with Y.L. Conte, M. Navajas, J. P. Christides, Z. J. Zeng, A. G. Bagnères)
131. "Evolution of sex determination gene in the honey bees," International Union for the Study of Social Insects, Washington DC, August 2006 (with S. Cho, D. Smith and J. Zhang)
132. "Ongetenic potentialities and caste differentiation in the *Reticulitermes* worker caste," International Union for the Study of Social Insects, Washington DC, August 2006 (with L. Leniaud, M. Kutnik, A. Pichon, S. Dupont and A.G. Bagneres)
133. "Drone regulation in honeybee colonies: a case for queen-worker cooperation?" International Union for the Study of Social Insects, Washington DC, August 2006 (with Wharton, K.E., F.C. Dyer, T.Getty)
134. "Chemical signature and camouflage used by *Varroa* infesting *Apis cerana* and *A. mellifera* broods: an adaptive strategy," 11<sup>th</sup> ISBE meeting, Avignon, France, July 2006 (with A.-G. Bagnères, M. Navajas, M. Salvy, J.-P. Christides, Y. Le Conte)
135. "Chemical signature and camouflage used by *Varroa* infesting *Apis cerana* and *A. mellifera* broods: an adaptive strategy," IUSSI-France, Tours, France, April 2006 (with A.-G. Bagnères, M. Navajas, M. Salvy, J.-P. Christides, Y. Le Conte)
136. "Electronic monitoring of mite feeding behavior on honey bees," American Bee Research Conference, Baton Rouge, LA, Jan 2006 (with Y. Qin, J. Zhao, L. Zhou)
137. "Electronic monitoring of feeding behavior of *Varroa* mites on honey bees," Annual Meeting of Entomological Society of America , Ft. Lauderdale, FL, Dec 2005 (with Y. Qin, J. Zhao, L. Zhou)
138. "Effects of colony, drone age, and *Nosema* infection on numbers of spermatozoa in the honey bee," Annual Meeting of Entomological Society of America , Ft. Lauderdale, FL, Dec 2005 (with G.W. Otis, T. Kiraly, R. Ebadi)
139. "Evolution of the complementary sex-determination gene of honey bees: balancing selection and trans-species polymorphisms," Annual Meeting of Entomological Society

- of America, Ft. Lauderdale, FL, Dec 2005 (with S. Cho, D.R. Green, D.R. Smith & J. Zhang)
140. "The interplay of queen and worker strategies on brood sex ratio patterns in the honeybee, *Apis mellifera*," Animal Behavior Society Meeting, Snowbird, UT, Aug 2005 (with K.E. Wharton, F.C. Dyer & T. Getty)
  141. "Hemolymph juvenile hormone titers in worker honey bees (*Apis mellifera*) under normal and pre-swarmling conditions," American Bee Research Conference, Reno, NV, Jan 2005 (with Y. Qin & Z. Zeng)
  142. "Hemolymph juvenile hormone titers and sodium / potassium ratios in worker honey bees (*Apis mellifera*) under normal and pre-swarmling conditions," Annual Meeting of Entomological Society of America, Salt Lake City, UT, Nov 2004 (with Y. Qin)
  143. "Thermal death kinetics the honey bee and its parasite, *Varroa destructor*," Annual Meeting of Entomological Society of America, Salt Lake City, UT, Nov 2004 (with Y. Qin)
  144. "How does a bee fly? Changes in flight muscle contractile proteins," Annual Meeting of Entomological Society of America, Salt Lake City, UT, Nov 2004 (with P. Alvarez-Ortiz, D. Iskay, S. Cabrera & T. Giray)
  145. "The vibration signal and juvenile hormone titers in worker honey bees, *Apis mellifera*," IUSI-NAS Annual Meeting, Camp Tontozona, AZ, Oct 2004 (with S.S. Schneider & L.A. Lewis)
  146. "JH titers, biosynthesis and metabolism in honey bee workers infected by a microsporidia parasite, *Nosema apis*," 8th International Conference on the Juvenile Hormones, Lake Tahoe, CA, Jun 2004
  147. "Dynamics of nosema spore loads in honey, beeswax and their relationship with worker infection," American Bee Research Conference, San Antonio, TX, Jan 2004
  148. "Testing the balancing selection hypothesis on the complementary sex- determination gene of honeybees," Annual Meeting for the Society for Molecular Biology and Evolution, Pennsylvania State University, 2004 (with S. Cho & J. Zhang)
  149. "Extraordinary queens - honey bee queens control sex ratio by overriding a highly stereotyped behavioral program," Annual Meeting of Entomological Society of America, Cincinnati, OH, Oct 2003
  150. "Tracking nosema spores in colonies headed by hygienic and regular queens," Annual Meeting of Entomological Society of America, Cincinnati, OH, Oct 2003 (with Y. Qin)
  151. "Model of nosema disease in honey bee colonies," Annual Meeting of Entomological Society of America, Cincinnati, OH, Oct 2003 (with D. Onstad & D. Crowder)
  152. "Nosema spore reproduction in different honey bee castes," American Bee Research Conference, Niagara on the River, Ont, Canada, Dec 2002 (with L. Taua & R. Lin)
  153. "Nosema spore reproduction in different honey bee castes," Annual Meeting of Entomological Society of America, Ft. Lauderdale, FL, Nov 2002 (with L. Taua & R. Lin)

154. "Why do young worker honey bees prefer warm temperatures?" Annual Meeting of Entomological Society of America, Ft. Lauderdale, FL, Nov 2002 (with J. Michalek)
155. "Effect of transgenic corn pollen on worker honey bees," Annual Meeting of Entomological Society of America, San Diego, CA, Dec 2001 (with A.V. Hanley & W. Pett)
156. "Why nurse bees do not sleep: melatonin implicated," Annual Meeting of Entomological Society of America, San Diego, CA, Dec 2001 (with R. Lin & R. Yu)
157. "Short-term changes in juvenile hormone titers in worker honey bees," Annual Meeting of Entomological Society of America, San Diego, CA, Dec 2001 (with R. Lin & C. Dusset)
158. "Earlier foraging in *Nosema*-infected honey bee workers: Are host *corpora allata* needed?" Annual Meeting of Entomological Society of America, San Diego, CA, Dec 2001 (with R. Lin & J. Sullivan)
159. "Larger cell size reduces varroa mite reproduction," American Bee Research Conference, Port Deposit, MA, Sept 2001
160. "The Spartan Mitezapper: a novel method for mite control," American Bee Research Conference, Port Deposit, MA, Sept 2001
161. "Melatonin and division of labor in honey bee workers," Annual Meeting of Entomological Society of America, Montreal, Canada, Dec 2000 (with R. Yu)
162. "Does *Nosema apis* affect age of first foraging in honey bees via juvenile hormone?" Annual Meeting of Entomological Society of America, Montreal, Canada, Dec 2000 (with R. Lin)
163. "Earlier foraging in carbon dioxide anesthetized bees: is it juvenile hormone mediated?" Annual Meeting of Entomological Society of America, Montreal, Canada, Dec 2000 (with E. Foster)
164. "Molecular and functional analysis of a sodium channel gene of the Varroa mite, *Varroa jacobsoni*," Annual Meeting of Entomological Society of America, Montreal, Canada, Dec 2000 (with R. Wang & K. Dong)
165. "The distribution of *Varroa jacobsoni* in swarms, afterswarms and remaining bees in the Western honey bees *Apis mellifera*," Annual Meeting of Entomological Society of America, Montreal, Canada, Dec 2000 (with J. Schmidt-Bailey)
166. "A novel invention for controlling *Varroa jacobsoni*, a parasite of the honey bees," Annual Meeting of Entomological Society of America, Montreal, Canada, Dec 2000
167. American Bee Research Conference, Eastern Apicultural Society, Salisbury, MD, Aug 2000
168. 2nd International Conference of Africanized Bees and Bee Mites, Tucson, AZ, Apr, 2000 (with R. Wang, K. Dong, P.J. Elzen & J. Pettis)
169. Annual Meeting of Entomological Society of America, Atlanta, GA, Dec 1999 (with R. Wang & K. Dong)
170. Annual Meeting of Entomological Society of America, Atlanta, GA, Dec 1999 (with R. Lin)
171. American Bee Research Conference, Apimondia, Vancouver, Canada, Sept 1999 (with R. Lin)

172. Annual Meeting of Entomological Society of America, Las Vegas, NE, Dec 1998
173. American Bee Research Conference, Colorado Springs, CO, Jan 1998
174. International Union for the Study of Social Insects/North American Section Meeting, Nederland, CO. Sep 1997 (with D. Schulz & G.E. Robinson)
175. Annual Meeting of Entomological Society of America, Louisville, KY, Dec 1996 (with D.W. Borst, S.E. Fahrbach & G.E. Robinson)
176. The 19th Annual Meeting of Midwest Neurobiologists, Madison, WI, June 1996
177. The 19th Annual Meeting of Midwest Neurobiologists, Madison, WI, June 1996 (with O.W. Jassim & G.E. Robinson)
178. Annual Meeting of Entomological Society of America, Las Vegas, NE, Dec 1995 (with G.E. Robinson)
179. Annual Meeting of Entomological Society of America, Las Vegas, NE, Dec 1995 (with D. Schulz & G.E. Robinson)
180. The 6th Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics, Argonne, IL, Nov 1995 (with O. Jassim & G.E. Robinson)
181. The 6th International Conference on Juvenile Hormones, Woods Hole, MA, Sept 1995 (with G.E. Robinson)
182. Annual Meeting of Entomological Society of America, Indianapolis, IN, Dec 1993 (with G.E. Robinson)
183. Annual Meeting of Entomological Society of America, Indianapolis, IN, Dec 1993 (with G.E. Robinson)
184. Annual Meeting of Entomological Society of America, Indianapolis, IN, Dec 1993 (with T. Giray & G.E. Robinson)
185. Annual Meeting of Entomological Society of America, Baltimore, MD, Dec 1992 (with G.E. Robinson)
186. The 3rd International Congress of Neuroethology, McGill University, Montreal, Canada, Aug 1992 (with M.E. O'Neal & G.E. Robinson)
187. The 15th Annual Meeting of Midwest Neurobiologists, Columbia, MO, Mar 1992 (with G.E. Robinson)
188. Annual Meeting of Entomological Society of America, Reno, NV, Dec 1991 (with G.E. Robinson)
189. The 2nd Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics, Argonne, IL, Nov 1991 (with M.E. O'Neal & G.E. Robinson)
190. Annual Meeting of Entomological Society of America, New Orleans, LA, Dec 1990 (with G.E. Robinson)

191. Annual Meeting of Entomological Society of America, New Orleans, LA, Dec 1990 (with C.O. Knowles)
192. Agricultural Experiment Station Workshop, Columbia, MO, Nov 1989 (with C.O. Knowles)
193. First Conference of the Chinese Association of Agricultural Students and Scholars, Ithaca, NY, June 1989
194. Annual Meeting of Entomological Society of America, Boston, MA, Dec 1987 (with G.W. Otis)
195. The 10th International Congress of IUSI, Munich, West Germany, Aug 18-22, 1986 (with G.W. Otis)
196. Annual Meeting of Entomological Society of Canada, Ottawa, Ontario, Sept 1985
197. Annual Meeting of Entomological Society of America, Hollywood, FL, Dec 1985
198. Annual Meeting of Entomological Society of America, San Antonio, TX, Dec 1984 (with G.W. Otis)

***Extension Presentations (invited or contributed)***

199. "Honey bee pheromones," Michigan State University ANR Week Honey Bee Program, E. Lansing, MI, March 2012 (two times, 160 people)
200. "Mating biology of honey bees," Michigan State University ANR Week Honey Bee Program, E. Lansing, MI, March 2012 (two times, 160 people)
201. "Effect of *Nosema spp* on honey bees," Michigan State University ANR Week Honey Bee Program, E. Lansing, MI, March 2012 (80 people)
202. "Update on *Nosema ceranae* research," Michigan Beekeepers' Association Fall Meeting, E. Lansing, MI Dec 2011 (50 people)
203. "Catching a swarm of honey bees," Michigan Beekeepers' Association Fall Meeting, E. Lansing, MI Dec 2011 (70 people)
204. Talks presented to Haitian beekeepers including field trip to harvest mites, how to measure LD50 of fluvalinate, mite biology, small hive beetle biology, Port au Prince, Cap Haitian, Haiti, Nov 2011 (200 people times)
205. "The Effects of *Nosema* on Honey Bees," Maryland State Beekeepers Association Fall Meeting, Keynote Speaker, Annapolis, MD, Nov, 2011 (80 people)
206. "Varroa Mite Reproductive Biology," Maryland State Beekeepers Association Fall Meeting, Keynote Speaker, Annapolis, MD, Nov, 2011 (80 people)
207. "Pesticide interactions may explain why bees can't find home," Heartland Beekeepers Association Annual Conference, Vincennes, IN, July 2011 (150 people)
208. "Honey bee anatomy," Heartland Beekeepers Association Annual Conference, Vincennes, IN, July 2011. (30 x 2 people)
209. "Understanding your bee behavior," Heartland Beekeepers Association Annual Conference, Vincennes, IN, July 2011. (20 x 2 people)

210. "Varroa reproductive biology," Southeastern Michigan Beekeepers' Association Spring Meeting, March 2011 (50 people)
211. "Pesticide synergism affect honey bee homing ability," Southeastern Michigan Beekeepers' Association Spring Meeting, March 2011 (50 people)
212. "Beekeeping in Turkey," Michigan State University ANR Week Honey Bee Program, E. Lansing, MI, March 2011 (60 people)
213. "Honey bee disease," Michigan State University ANR Week Honey Bee Program, E. Lansing, MI, March 2011 (60 people) (two times, 60 x 2 people)
214. "Keeping bees healthy," Joint Conference of American Bee Federation and American Honey Producers Association, Honey Producer/Packer Shared Interest Group, Galveston, TX, Jan, 2011 (100 people)
215. "Varroa mite Reproductive Biology," Southeast Michigan Beekeepers Association Fall Meeting, Novi, MI, Nov 2010 (70 people)
216. "Beekeeping in Turkey," Saginaw Valley Beekeepers Association, St. John, MI, Nov. 2010 (60 people)
217. "Varroa mites - an advanced study," Michigan Beekeepers' Association Fall Meeting, Grand Rapids, MI Oct 2010
218. "Colony Collapse Disorder, an update," Michigan Beekeepers' Association Fall Meeting, Grand Rapids, MI Oct 2010
219. "Mitezapper: a demonstration for its use," International Honeybee and Beekeeping Panel, Namik Kemal University, Tekirdaq, Turkey, Sept 2010 (120 people)
220. "Beekeeping technology and bee product processing in China," Tekirdaq Beekeepers Association, Tekirdaq, Turkey, Sept 2010 (120 people)
221. "Adult anatomy through the microscope a demonstration," (2 sessions x 24 each). Eastern Apicultural Society Short Course and Conference, Boone, NC, Aug 2010 (48 people)
222. "Moving bees and its consequences, Eastern Apicultural Society Short Course and Conference, Boone, NC, Aug 2010 (80 people)
223. "Effect of transportation on honey bee physiology," Southeastern Michigan Beekeepers Association, Novi, MI, March 2010 (240 people)
224. "Beetography: how to take macro photographs of honey bees," MSU ANR week Beekeeping Program, East Lansing, MI, March 2010 (60 people)
225. "Nosema diseases: a tale of two species," MSU ANR week Beekeeping Program, East Lansing, MI, March 2010 (120 people)
226. "Honey bee diseases and pests," Shiawassee Conservation District , MI, Feb 2010 (55 people)

227. "Honey bee biology, behavior and bee products," Shiawassee Conservation District , MI, Feb 2010 (55 people)
228. "Anatomy and function of honey bees," Backyard Beekeepers Association, CT, Nov 2009 (80 people)
229. "Honey bee pheromones," Heartland Apicultural Society, July 2009 (80 people)
230. "Honey bee photography," Heartland Apicultural Society, July 2009 (50 people)
231. "Honey bee behaviors," Show and tell in the field, Heartland Apicultural Society, July 2009 ( 20 people)
232. "Varroa research at Michigan State University," Canberra Beekeepers Association, ACT, Australia, April, 2009 (35 people)
233. "Nosema control by thymol and other essential oils. Almond Board of California," Almond Board Conference, Modesto, CA, Dec. 2008 (poster, 200 people)
234. "Honey bee pheromones and their use in beekeeping," Eastern Apicultural Society Conference, Murray, KY, Aug 2008 (120 people)
235. "Genetically modified plants, are they causing CCD?" Eastern Apicultural Society Conference, Murray, KY, Aug 2008 (80 people)
236. "Honey Bee Photography, Field Session: Taking the Photos," Eastern Apicultural Society Conference, Murray, KY, Aug 2008 (15 people, with Bill Modjack)
237. "Honey Bee Photography, Classroom Session: Processing the Photos," Eastern Apicultural Society Conference, Murray, KY, Aug 2008 (35 people, with Bill Modjack)
238. "Honey bee diseases, pests and the CCD crisis," Ingham County Extension Center, April 9 2008 (15 people)
239. "Honey bee photography," Southern Adirontack Beekeepers Association, Albany, NY, March 29 2008 (130 people)
240. "Are genetically modified plants causing CCD?" Southern Adirontack Beekeepers Association, Albany, NY, March 29 2008 (130 people)
241. "Using honey bees for blueberry pollination," special topics on blueberry production, Fennville, MI March 27, 2008 (50 people)
242. "GM Plants and honey bees: do they cause CCD?" Southeast Michigan Beekeepers Association, Novi, MI, March 15 2008 (150 people)
243. "Honey bee biology," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, March 7-8 2008 (three times, 90 people)
244. "Threats to honey bees and CCD update," Bee Class by Ingham County Extension Office, MSU Pavilion, Jan 15 2008 (25 people)

245. "Importance of honey bees for Michigan fruit industry and their current status," NW Michigan Orchard & Vineyard Show, Traverse City, MI, Jan 2008 (100 people)
246. "Chasing bees around the world," American Beekeeping Federation and American Honey Producers Association Joint Meeting, Sacramento, CA, Jan 2008 (50 people)
247. "Mechanisms of essential oil on varroa mite control," Almond Board Conference, Modesto, CA, Dec 2007 (200 people)
248. "Working with your beekeeper for optimal pollination of fruits and vegetables," Great Lakes Fruit, Vegetable & Farm Market Expo, Grand Rapids, MI, Dec 2007 (with W. Pett, 150 people)
249. "Inside story of honey bees," Heartland Apicultural Society, Frankfurt, KY, July 2007 (50 people)
250. "Nosema disease: effect on workers and its control," Heartland Apicultural Society, Frankfurt, KY, July 2007 (30 people)
251. "GM plants and bees," Heartland Apicultural Society, Frankfurt, KY, July 2007 (50 people)
252. "Queen rearing: theory and methods," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
253. "Queen and drone biology," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
254. "Honey bee disease and pests," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
255. "Controlling the two mites: Varroa and *Tropilaelaps*," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
256. "Strategies for increasing honey production," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
257. "Hive products of bees: pollen, propolis, beeswax and royal jelly," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
258. "Honey plants," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
259. "Marketing your honey," Rapti Beekeepers Association, Dang, Nepal, Mar 2007 (16 people)
260. "Fruit pollination using honey bees and other insects," MSU Horticultural Days, Benton Harbor, MI, Feb 2007 (66 people)
261. "Field-testing the Mitezapper," Southeastern Michigan Beekeepers Association Spring Conference, MI, Feb 2007 (80 people)
262. "Varroa mites: biology and its control," Ingham County MSU Extension Bee Program, E. Lansing, MI, Feb 2007 (24 people)
263. "Honey bee diseases and pests," Ingham County MSU Extension Bee Program, E. Lansing, MI, Feb 2007 (24 people)
264. "Honey bee pheromones and relevance to beekeeping," Iowa Honey Producers Association, Marshalltown, IA, Nov 2006 (60 people)

265. "Digital photography of honey bees," Iowa Honey Producers Association, Marshalltown, IA, Nov 2006 (30 people)
266. "Nosema disease, should you worry about it?" Iowa Honey Producers Association, Marshalltown, IA, Nov 2006 (60 people)
267. "What can I do for you, Michigan beekeepers," Michigan Beekeepers Association, Midland, MI, Oct 2006 (15 people)
268. "Honey bee pheromones and beekeeping," Heartland Apicultural Society, Vincennes, IN, July 2006 (60 people)
269. "Honey bee photography - classroom instruction," Heartland Apicultural Society, Vincennes, IN, July 2006 (60 people)
270. "Honey bee pests and diseases," Eaton County Education Center, Charlott, Michigan, July 2006 (50 people)
271. "Honey bee photography – field demonstration," Heartland Apicultural Society, Vincennes, IN, July 2006 (30 people)
272. "Mechanisms of Division of Labor in Honey Bees," Virginia State Beekeepers Association Summer Meeting, June 2006 (80 people)
273. "Honey bee photography," Virginia State Beekeepers Association Summer Meeting, June 2006 (80 people)
274. "Exocrine glands and pheromones," Virginia State Beekeepers Association Summer Meeting, June 2006 (80 people)
275. "Honey Bee Research at MSU and Tour of MSU Bee Biology Building," Southeast Michigan Beekeepers Association Summer Picnic, MSU Apiary, [http://sembabees.org/gallery/MSU06\\_0506.html](http://sembabees.org/gallery/MSU06_0506.html) (20 people)
276. "Honey bees and blueberry pollination," Blueberry Field Day, Travel Nichols Research Station, May 2006 (80 people)
277. "Bee pheromones: biology and relevance to beekeeping," North Carolina State Beekeepers Association Spring Meeting, Clemmons, NC, March 2006 (250 people)
278. "External and internal morphology of honey bees," North Carolina State Beekeepers Association Spring Meeting, Clemmons, NC, March 2006 (100 people)
279. "Honey bee photography workshop," North Carolina State Beekeepers Association Spring Meeting, Clemmons, NC, March 2006 (90 people)
280. "Almond pollination in California," ANR Week Beekeeping conference, MSU, MI, March 2006 (180 people)
281. "Resistance mechanisms against fluvalinate by *Varroa destructor*," Empire State Beekeepers Association, Syracuse, NY, Dec 2005 (80 people)

282. "The life of a worker bee", Michigan Beekeeper Association Fall Meeting, Midland, MI, Oct 2005 (80 people)
283. "Honey bee pheromones: biology and relevance to beekeeping," Southwest Michigan Beekeepers Association Meeting, Benton Harbor, Oct 2005 (50 people)
284. "Honey bee researches in the country," Cranbrook Bee Club, Bloomfield Hills, MI, Oct 2005 (18 people)
285. "Basic honey bee biology," "Starting up with bees," "Seasonal management," "Disease and pests of honey bees," One day workshop and field day (9am to 3pm). Lakeview, MI, Aug 2005 (20 people)
286. "The newest honey bee pheromone," Eastern Apicultural Society, Kent, OH Aug 2005 (100 people)
287. "Exocrine glands and their pheromones," Southeast Michigan Beekeepers' Association Meeting, Novi, MI, April 2005 (120 people)
288. "Exocrine glands and their pheromones," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2005 (160 people)
289. "Dynamics of *Nosema* spore levels in honey, beeswax and relationship to rate of worker infection," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2005 (140 people)
290. "Honey bee health, numbers, and other factors in cucumber pollination," Great Lakes Expo (Fruit, Vegetable & Farm Market), Grand Rapids, MI, Dec 2004 (110 people)
291. "Honey bee exocrine glands and pheromones," Michigan Beekeepers' Association Meeting, Higgins Lake, MI, Oct 2004 (60 people)
292. "Honey bees photographed around the world," Southeast Michigan Beekeepers' Association Meeting, Novi, MI, March 2004 (160 people)
293. "Honey bees photographed around the world," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2004 (160 people)
294. "Apilife Var and other means for controlling Varroa mites," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2004 (160 people)
295. "Vine crop pollination," Great Lakes Expo (Fruit, Vegetable & Farm Market), Grand Rapids, MI, Dec 2003 (250 people)
296. "American foulbrood: symptoms, treatment, resistance and recent research," Michigan Beekeepers' Association Fall Meeting, Cadillac, MI, Oct 2003 (50 people)
297. "A five year summary of bee research and education at MSU," Michigan Beekeepers' Association Fall Meeting, Cadillac, MI, Oct 2003 (50 people)
298. "Five years at MSU," Southwest Michigan Beekeepers' Association Meeting, Benton Harbor, MI, Oct 2003 (30 people)

299. "Honey bee education and research at MSU," Southeast Michigan Beekeepers' Association Meeting, Novi, MI, Sept 2003 (30 people)
300. "The inside story: demonstration of honey bee morphology and anatomy," Heartland Apicultural Society, 2<sup>nd</sup> Conference, Midway, KY, July 2003 (30 people)
301. "New ideas in varroa mite control: update on mitezapper," Heartland Apicultural Society, 2<sup>nd</sup> Conference, Midway, KY, July 2003 (250 people)
302. "Age related changes in worker honey bees," Keynote Speaker, Southeast Michigan Beekeepers' Association 63<sup>rd</sup> Annual Bee School, Schoolcraft College, MI, Mar 2003 (120 people)
303. "The extraordinary queen: insect birth control," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2003 (150 people)
304. "Why young bees like it warm --flight development in bees," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2003 (150 people)
305. "Age related changes in worker honey bees," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2003 (150 people)
306. "Flight development in worker bees," Joint conference of Ontario and Michigan Beekeepers' Associations, Niagara on the River, Ont, Canada, Dec 2002 (200 people)
307. "The cousins of our bees: Asian bees," Michigan Beekeepers' Association Fall Meeting, Flint, MI, Oct 2002 (50 people)
308. "Effect of transgenic pollen on honey bees," Eastern Apicultural Society Conference, Ithaca, NY, Aug 2002 (60 people)
309. "Other products of the hive," Eastern Apicultural Society Workshop, Ithaca, NY, Aug 2002 (70 people)
310. "Zapping varroa mites," The 1<sup>st</sup> conference of Heartland Apicultural Society, Goshen, IN, July 2002 (180 people)
311. "Asian bees," The 1<sup>st</sup> conference of Heartland Apicultural Society, Goshen, IN, July 2002 (8 people)
312. "Varroa mites and update on the mitezapper," Southwest Michigan Beekeepers' Association summer meeting, Lake Michigan College, Benton Harbor, MI, June 2002 (15 people)
313. "*Apis cerana* in China and how do they resist the varroa mites," National Association of Queen Breeders and Bee Rearing Centers, Limoges, France Mar 2002 (50 people)
314. "Nosema disease: how does it affect your bees," National Association of Queen Breeders and Bee Rearing Centers, Limoges, France, Mar 2002 (50 people)
315. "Resistance mechanisms of varroa mites to chemicals," National Association of Queen Breeders and Bee Rearing Centers, Limoges, France, Mar 2002 (50 people)
316. "Non-chemical control for varroa mites: zapping them," Keynote Speaker, National Association of Queen Breeders and Bee Rearing Centers, Limoges, France, Mar 2002 (50 people)

317. "Tree fruit pollination - makes it or breaks it," MSU Tree Fruit IPM & Production School, Kellogg Biological Station, MSU, Feb 2002 (100 people)
318. "Melatonin and bees: why some bees work around the clock and others sleep," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2002 (160 people)
319. "Varroa control with a new device, the Spartan Mitezapper," Fall meeting of Michigan Beekeeper's Association, Big Rapids, MI, Oct 2001 (60 people)
320. "Beekeeping with *Apis cerana* in China," Fall meeting of Michigan Beekeeper's Association, Big Rapids, MI, Oct 2001 (60 people)
321. "Mitezapper: how does it work and its potential market," National Agri-Marketing Association at MSU, MSU, Oct 2001 (16 students)
322. "A non-chemical approach to varroa mite control -- introducing the electrifying Mitezapper," Eastern Apicultural Society Conference, Cape Cod, MA, Aug 2001 (80 people)
323. "Beekeeping with *Apis cerana* in China," Eastern Apicultural Society Conference, Cape Cod, MA, Aug 2001 (110 people)
324. "A new way to deal with resistant mites -- zap 'em!" Joint meeting of Michigan Beekeepers' Association and Ontario Beekeepers' Association Summer Meeting, July 2001 (120 people)
325. "Mitezapper for varroa control: simple idea, great effect," Southeast Michigan Beekeepers' Association 63<sup>rd</sup> Annual Bee School, Schoolcraft College, MI, Mar 2001 (80 people)
326. "Two web-related projects at MSU to help beekeepers," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2001 (120 people)
327. "Mitezapper for Varroa control: simple idea, great effect," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2001 (120 people)
328. "Varroa mites and Chinese bees," Michigan Beekeepers Association Fall Meeting, Big Rapids, MI, Oct 2000 (80 people)
329. "Honey bee research at Michigan State University," Michigan Beekeepers Association Fall Meeting, Big Rapids, MI, Oct 2000 (80 people)
330. "What is new with the small hive beetle?" Michigan Beekeepers Association and Indiana Beekeepers Association Joint Summer Meeting, Nappanee, IN, June 2000 (90 people)
331. "Age-related behavior of workers, and how they know when and what to do?" Indiana Beekeepers Association, Middlebury, IN, May 2000 (80 people)
332. "What is buzzing with bee research at Michigan State University?" Michigan State Beekeepers' Association Fall Meeting, Big Rapids, Oct 2000 (120 people)
333. "Pesticide resistance: how do bugs get it?" Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2000 (180 people)

334. "Small hive beetle update," Michigan Beekeepers' Association Fall Meeting, Big Rapids, MI, Oct 1999 (90 people)
335. "Small hive beetle," Plant Industry Section Fall Training, Pesticide and Plant Pest Management Division, Michigan Department of Agriculture, Lansing, MI, Oct 1999 (70 people)
336. "Update on the small hive beetle, a new pest in honey bees," Pesticide Education and Regulatory Update, E. Lansing, MI, Oct 1999 (70 people)
337. "Small hive beetle report" and demonstration of mite resistance field test, Holland Beekeeper's Meeting, Holland, MI, July 1999 (80 people)
338. Demonstration of mite resistance field test, Southeast Michigan Beekeeper's Meeting, Davisburg, MI, July 1999 (70 people)
339. Demonstration of mite resistance field test, Southwest Michigan Beekeeper's Meeting," St. Joseph, MI, July 1999 (10 people)
340. Demonstration of mite resistance field test, Michigan Beekeeper's Association Summer Meeting, St. Charles, MI, July 1999 (80 people)
341. "Social structure of the honey bee colony," Keynote Speaker, Indiana Beekeeper's Association Summer Meeting, Warsaw, IN, June 1999 (70 people)
342. "Social organization of the honey bee colony," Keynote speaker, Southeast Michigan Beekeepers' Association 61<sup>st</sup> Annual Bee School, Schoolcraft College, MI, April 1999 (120 people)
343. "A closer look at the Nosema problem," Southeast Michigan Beekeepers' Association 61<sup>st</sup> Annual Bee School, Schoolcraft College, MI, April 1999 (120 people)
344. "Research program at Michigan State University," Ontario Bee Breeders' Association Annual Queen Breeding Workshop, Guelph, Ont. Mar 1999 (150 people)
345. "Social organization of the honey bee colony," Agricultural and Natural Resources Week, MSU, Mar 1999 (200 people)
346. "Research experience and future research," Southwest Michigan Beekeepers Association, Benton Harbor, Feb 1999 (6 people)
347. "Division of labor in the hive," Missouri State Beekeepers Association Fall Meeting, Michigan State Beekeepers Association, Cadillac, Oct, 1998 (120 people)
348. "Behavioral sequences of worker honey bees," Missouri State Beekeepers Association Fall Meeting, Lake of Ozarks, Missouri, Oct 10, 1998 (150 people)
349. "Nosema disease," Missouri State Beekeepers Association Fall Meeting, Lake of Ozarks, Missouri, Oct 10, 1998 (200 people)
350. "Social regulation of forager development," Illinois State Beekeeping Association Annual Meeting, Nov 1997
351. "Activation of food glands in worker bees," Toronto District Beekeepers' Association, Mar 1988

352. "Beekeeping in China," Toronto District Beekeepers' Association, Feb 1985

### **Outreach Presentations**

353. "Honey bees and beekeeping, show and tell," Barry County Extension 4-H Youth Program. Hastings, MI, May 2011 (265 3<sup>rd</sup> grade students)
354. "Honey bees and beekeeping, show and tell," Barry County Extension 4-H Youth Program. Hastings, MI, May 2010 (350 3<sup>rd</sup> grade students)
355. "Honey bees: their importance to agriculture," Bioblitz at the Kalamazoo Nature Center, Sept, 2009 (10 people)
356. "Honey bees and beekeeping, show and tell," Barry County Extension 4-H Youth Program. Hastings, MI, May 2008 (375 3<sup>rd</sup> grade students)
357. "Honey bees are important to Michigan agriculture," Capital area Audubon Program, Lansing, MI. Nov 2007 (50 people)
358. "Colony collapse disorder and its implications for our food," Presentation at " God Save The Queen October Honey Bee Research Benefit," Leapin Lizard Gallery, Covington, KY, Oct 12, 2007 (100 people)
359. "Honey bees: importance to Michigan agriculture and threats they face," Pfizer, Portland, MI. June 2007(70 people)
360. "Honey bees: biology and beauty," Senior Group, First Baptist Church, Okemos, MI. Feb 2007 (30 people)
361. "Honey bee show and tell," Meridian Heritage Festival, Meridian Township Complex, Okemos, MI. Oct, 2006, with K. Wharton (300 attendees)
362. "MSU bee lab field day," MSU bee biology building, May, 2006 (27 attendees)
363. "Honey bee show and tell," Meridian Heritage Festival, Meridian Township Complex, Okemos, MI. Oct, 2005, (with K. Wharton, 400 attendees)
364. Slide show of bees, Observation hive show, "Behavior of bees," "How honey is made," "Bee sting," a 3 hr program, Bennett Woods School, Okemos, MI. Sept, 2005, with K. Wharton (170 Students)
365. "Honey bee Biology," "Dance reading" and "Nest recognition," Korean Visting International Professional Program, MSU, July 2005, (20 teachers)
366. "Honey bee biology," Senior Students, Okemos High School, May, 2005 (20 students)
367. "Melatonin and honey bee division of labor," Senior Students, Okemos High School, May, 2005 (30 students)
368. "Honey bee division of labor," Rotary International, Okemos branch, Okemos, MI, Dec 2004 (40 people)
369. "How do bees and insects over-winter?" Junior League of Detroit BINZ, Belle Isle Nature Zoo, MI, Dec 2004 (20 people)

- 370. Meridian Heritage Festival, Meridian Township Complex, Okemos, MI. Oct 2, 2004. (500 attendees)
- 371. Presentation to 2<sup>nd</sup> Grade, Marble Elementary School, MI. May 29, 2003 (21 students)
- 372. Field demonstration "How to install package bees," to Cub Scouts, May 5, 2003 (7 people)
- 373. Presentation to 7<sup>th</sup> grade Perry Middle School, May 2002. (200 students, by S. Michelak)
- 374. Presentation to 7<sup>th</sup> grade Perry Middle School, May 2001 (200 students, by S. Michelak)
- 375. Presentation at Rural Education Day MSU Pavilion, April 2000 (1,500 3<sup>rd</sup> grade students)
- 376. Presentation to 1st Grade Yankee Ridge Elementary School, June 1997
- 377. Science Fair (Honey Bee Show), Button Field Elementary School, IL, Sept 1997
- 378. Presentation to 2<sup>nd</sup> Grade, Button Field Elementary School, IL, Sept 1997

***Presentations by Lab Members (Audience number given for extension talks)***

- 379. Nemeth, A. "insect synergism affect honey bee learning during navigation," High School Honors Science Program Report Presentation, MSU, Sept 2010
- 380. Donowich, J. "Memory of decay of honey bee relay landscape learning," High School Honors Science Program Report Presentation, MSU, Sept 2010
- 381. Riddle, J. "Honey bees and beekeeping, show and tell," Ag Awareness Day. Hastings, MI, May 2010 (625 3<sup>rd</sup> grade students)
- 382. Kondamuri, N. " Influence of Relay Landscape Learning on Honeybee Homing Rate," High School Honors Science Program Report Presentation, MSU, Sept 2009
- 383. Shin, J. "Ontogeny of Honey Bee Orientation Flights," High School Honors Science Program Report Presentation, MSU, Sept 2009
- 384. Riddle, J. "Honey bees and beekeeping, show and tell," Barry County Extension 4-H Youth Program. Hastings, MI, May 2009 (475 3<sup>rd</sup> grade students)
- 385. Lin, S. "Mechanism by which the juvenile hormone analog methoprene induces accelerated behavioral development in worker honey bees, *Apis mellifera*," High School Honors Science Program Report Presentation, MSU, Sept 2007
- 386. Zhao, G. "Electronic monitoring of *Varroa destructor* feeding behavior on honey bee *Apis mellifera*," High School Honors Science Program Report Presentation, MSU, Aug 2004
- 387. Tuitele, F. "The amount of pollen grains ingested by larvae of honey bee (*Apis mellifera*) worker, drone and queen of different ages," High School Honors Science Program Report Presentation, MSU, Aug 2004
- 388. Lee, G., L.I. Araujo. "Effect of carbon dioxide on honey bee foraging behavior, JH titer and sensitivity to JH," High School Honors Science Program Report Presentation, MSU Aug, 2003
- 389. Taua, L. "Nosema spore production in honey bee workers performing different tasks," High School Honors Science Program Report Presentation, MSU, Aug 2002

390. Lin, H. "Other products of the bee hive," Southeast Michigan Beekeepers' Association 62<sup>nd</sup> Annual Bee School, Schoolcraft College, MI, Mar 2002 (160 people)
391. Lin, H. "It is not just honey: other hive products you can harvest from bees," Agricultural and Natural Resources Week Beekeeping Program, MSU, Mar 2002 (160 people)
392. Krishnamurti, P. "Comparison of protein profiles between healthy and *Nosema*-infected honey bee workers (*Apis mellifera* L.)," High School Honors Science Program Report Presentation, MSU, Aug 2001
393. Mathews, E. "What I've learned about *Nosema* and how it affects bees," Minority Research Program Report Presentation, MSU, July 2001
394. Hanley, A.V. "MSU Apiculture Summer Research Report," Southwest Michigan Beekeepers Association. Paw Paw, MI, July 2001 (12 people)
395. Lin, H. "An update on *Nosema* research and its possible alternative control," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2001 (120 people)
396. Hanley, A.V. "Transgenic pollen and honey bees," Agricultural and Natural Resources Week Beekeeping Program, Michigan State University, Mar 2001 (120 people)
397. Hanley, A.V. "Effect of transgenic pollen on honey bees," Michigan Beekeepers Association Fall Meeting, Big Rapids, MI, Oct 2000 (80 people)
398. Foster, E.S. "Effects of CO<sub>2</sub> anesthesia on behavior and physiology/after-hours controlled mating," Michigan Beekeepers Association Fall Meeting, Big Rapids, MI, Oct 2000 (80 people)
399. Foster, E.S. "The effect of CO<sub>2</sub> narcosis on the juvenile hormone profile of the worker honey bee, *Apis mellifera* L.," Ronald E. McNair Post-Baccalaureate Achievement Program and Summer Research Opportunity Program Report Presentation, Oct 2000
400. Lin, H. "Honey bee perfume," Southeast Michigan Beekeepers' Association 60<sup>th</sup> Annual Bee School, Schoolcraft College, MI, Mar 2000 (120 people)
401. Lin, H. "Royal jelly, health effects and production," Agricultural and Natural Resources Week Beekeeping Program, MSU, Mar 2000 (180 people)
402. Dusset, C. "Short-term changes of juvenile hormone due to stress," Undergraduate Research Opportunity Program Report Presentation, MSU, Oct 2000

### Courses Taught

Graduate Course	Insect Physiology, S05, S01 (with J. Miller & A. Raikhel), S99 (with A. Raikhel)
Undergraduate Course	Apiculture and Pollination, F04, F02, S01 (with W. Pett), Fall 2003 Apiculture and Pollination, S00, F00, F07
Short Courses	Honey bee biology and Beekeeping, MSU Evening College, S06, S07, S12 Queen Rearing, Jun 2004 Package Bee Installation, May 2003 Beginning Beekeeping, Apr 2001

Beginner Level Beekeeping, Apr 2000

Workshops	<p>Measuring LD50 for varroa mites, Haitian Beekeepers, Haiti, 2011          Honey bee queen rearing and beekeeping essentials, Rapti Beekeepers Association, Nepal, 2007          Honey Bee Biology, Korean Teachers, 2005          Beekeeping Short Course, 1998          Radiochemical assay of insect juvenile hormone biosynthesis (Illinois State University, 1 day workshop), 1996, 1997          Behavioral Physiology and Ecology of Honey Bees (Beijing Agricultural University, 2-week workshop), 1993</p>
Guest Lectures	<p>Integrating Beekeeping Across the Curriculum, Oakland University, 3 lectures/year, S07, S08, S09, S10, S11          Insect Physiology Juvenile Hormone Labs, Spring 2003          Insects and People, UIUC, 1995          Chemical Communication in Bees, UIUC, 1991, 1998          Honey Bee Morphology, University of Guelph, 1986</p>

## **Supervising and Hosting**

### ***High School Honors Science Program (HSHSP) Students***

2010: Alison Nemeth, Jill Dolowich (Intel Semi-finalist)  
 2009: Neil Kondamuri, Semi-finalist, Siemens Competition, J. Shin  
 2007: Stephanie Lin, Semi-finalist, Siemens Competition, Faleomavaega Tuitele  
 2004: Jennifer Zhao  
 2003: Laura Araujo, Grace Lee, both Regional finalist, Siemens Competition  
 2002: Letti Taua  
 2001: Priya Krishnamurti

### ***The Minority Apprenticeship Program***

2001: Errol Mathews, Sowkya Rangarajan

### ***Undergraduate Students***

Andrea Callaway, Brittney Andre, David Huang, fall 2011  
 Julie Adams, research assistant, summer 2011  
 Sowmya Achanta  
 Kevin Baker, research assistant, summer 2010, 2011  
 Mike Jessup, research assistant, summer 2010, 2011  
 Melissa Huang, research assistant, summer 2009  
 Joseph Riddle, research assistant, summer 2005-2010 (except 2007)  
 David Huang, research assistant, summer 2006, 2007  
 Mitchell Carroll, Eileen Chang, summer assistants, summer 2005  
 Bartek Majewski, research assistant in developing the Mitezapper, 2002-2003  
 Emily Jackson, Laurent Clauda, undergraduate summer research assistants, summer 2001  
 Erik Foster, Summer Research Opportunity Program-McNair Scholar, 1999-2000  
 Candice Dusset, Undergraduate Research Opportunity Program, 1999-2000

### ***Graduate Students***

Nick Testa, Ph.D. Student, 2011 - (guidance committee)  
 Lingxin Wang, Ph.D. Student, 2011 - (guidance committee)  
 Mike Goblirsch, Ph.D. Student (Univ of Minnesota), 2011- (guidance committee)  
 Yu-lun Fu, M.Sc. student, 2006-2008 (advisor)  
 Anne Hanley, M.Sc. student, 2000-2002 (advisor)  
 Ting Zhou, 2000-2004 (co-advisor, China Agricultural University)

Kathryn Elizabeth Wharton, Ph.D. Student, 2003- (guidance committee)  
Julianna Tuell, Ph.D. Student, 2003-2007 (guidance committee)  
Mercedes Ramirez, M.Sc. Student, 2007- (guidance committee)  
Devrim Oskay, Ph.D. Student (Univ. Puerto Rico), 2002-2007 (guidance committee)

### **Postdoctoral Fellows**

Xianbing Xie, (Nanchang University, China), 2011-2011  
Samina Qamer (Government College University, Pakistan), 2011-2012  
R.W.K. Puchiheva (University of Ruhuna, Sri Lanka), summer 2010  
Kiheung Ahn, (Konkuk University, Korea) 2006-2009  
Guntima Suwannapong (Burapha Univ., Thailand), May – Nov 2007  
Liangxian Sun, (Quanzhou University, China), 2006  
Yuchuan Qin, (China Agricultural University, China), 2003 – 2004  
Jianguo Tan, (co-advised with K. Dong) 2002 - 2003  
Ronglin Yu, 2000  
Joerg Schmidt-Bailey, 2000 - 2001  
Ruiwu Wang (co-advised with K. Dong), 1999- 2002  
Ron Huarong Lin, 1999- 2002

### **Visiting Scientists**

Toan Van Tran (Bee Research and Development Center, Vietnam), Summer, 2009, 2010  
Paitatoon Seanbualuang (Chulalongkorn University, Thailand), May – Nov 2008  
Xianbing Xie (Jiangxi Agricultural University, China), March – Sep 2008  
Laurianne Leniaud (University of Tours, France), Jan 2007  
Jakob Wegener (Länderinstitut für Bienenkunde, Germany), Nov 2006  
Marie-Pierre Schippers (McMaster University, Canada), April 2006  
Laurianne Leniaud (University of Tours, France), Nov 2005  
Bingyan Xie, Dongxin Feng (Institute of Vegetable & Flowers Res., China), Oct 2004  
Rong Kou and Huan-Wen Chang (Academia Sinica, Taiwan), Mar 2004  
Kathryn Gardner (Cornell University), Jan 2004  
Ting Zhou (Institute of Apicultural Research, China), 2002 - 2003  
Zhijiang Zeng (Jiangxi Agric University, China), Aug 2003  
Michael Langenberger (Canada), summer of 2002, 2004-2006

### **Symposia/Meetings Organized**

“Contribution of social insect studies to science and society,” Program Symposium, Entomological Society of America, Indianapolis, IN, 2006 (with T. Giray)  
Agricultural and Natural Resources Week Beekeeping Program at MSU, 1999-2005  
Informal Conference, Overseas Chinese Entomologists Association, ESA, 2000  
Symposium on mechanism of division of labor, International Union for the Study of Social Insects, Sapporo, Japan, 2002

### **National and International Service**

#### **Reviewer**

##### *Journals*

Analytical and Bioanalytical Chemistry, Apidologie, American Bee Journal, American Naturalist, Animal Behavior, Annals of the Entomological Society of America, BeeScience, Bee World, Behavioral Ecology and Sociobiology, BMC Genetics, Comparative Biochemistry and Physiology, Current Zoology (China), Entomological Science (Japan), Entomologia Sinica, Environmental Biosafety Research, Environmental Microbiology and Environmental Microbiology Reports, Food Chemistry, Insect Molecular Biology, Insectes Sociaux, Insect Science, Journal of Apicultural Research, Journal of Applied Entomology, Journal of Comparative Physiology, Journal of Economic Entomology, Journal of Environmental Entomology, Journal of Experimental Biology, Journal of Insect Physiology, Journal of Proteome Research, Naturwissenschaften, Psyche, Turkish Journal of Zoology, PLOS One, Proceedings of Royal Society, Proceedings of the National Academy of Sciences USA, Veterinary Parasitology

##### *Grants*

Austria Science Foundation, Israel Natural Science Foundation, National Science Foundation (USA), National Natural Science Foundation of China, USDA-National Research Initiative, USDA-North Central Region SARE Program, USDA National Labs Project Plan Review

**Editor-in-Chief**

SINO-Ecologists Overseas Newsletter, 1990  
Chinese Illini, 1991-1992

**Media Appearance**

Interview by State News, July, 2011  
Interview by Lansing State Journal, August, State News, June, WJR talk radio, April, 2010  
Interview by State News, July 2008  
Interview related to honey bee colony collapse disorder (Detroit Free Press, Michigan Radio, Michigan Farm News, Lansing State Journal, Kalamazoo Gazette, WKAR Michigan Public Radio, interlochen radio, Saginaw News, MSU Futures Magazine, MSU ANR Communications Office) 2007  
Phone interview by Lansing State Journal, Feb 2007  
Interview by MSU news, Dec 2006 (<http://special.newsroom.msu.edu/honey/>)  
Interview by State News, Nov 2006 (<http://www.statenews.com/article.phtml?pk=38687>)  
Interview by MSU news, Oct 2006 (<http://newsroom.msu.edu/site/indexer/2883/content.htm>)  
Interview by Futures magazine (MAES, MSU), Dec 2005  
Interview by Focal Point (MSU student TV), Nov 2005  
Story by WKAR radio, Sept 23, 2005, <http://wkar.org/morningedition/story.php?storyid=806>  
MSU-Today news regarding beetography, July 2005,  
<http://www.msutoday.msu.edu/research/index.php3?article=15Jul2005-8>  
MSUE news regarding beetography, June 20, 2005,  
[http://www.green.msu.edu/articles/Photogenic\\_Bees\\_Huang.htm](http://www.green.msu.edu/articles/Photogenic_Bees_Huang.htm)  
Interview by State News, regarding PNAS paper, Dec 1, 2004  
Phone Interview by CBC, regarding PNAS paper, Nov 29, 2004  
Interview by MSU news, regarding PNAS paper, Nov 11, 2004  
Interview by Michigan Public Radio (later broadcasted on NPR), May 17, 2004  
Phone interview regarding honey bees, Kalamazoo Gazette, May 4, 2004  
Phone interview regarding bumble bees, Kalamazoo Gazette, May 5, 2004  
Radio interview by Farm Radio Network on bees and pollination, March 9, 2004  
Phone interview by Oakland Press, Sept 3, 2003  
TV interview by HOM-TV (Meridian Township, MI) on bee sting allergies, May 28, 2003  
Radio interview by Lansing State Journal on bee stings, May 19, 2003  
Radio interview by Farm Radio Network on bees and pollination, May 14, 2003  
Radio interview by Michigan Farm Radio (Grand Rapids, MI) on "beebase," May 17, 2002  
Research News, MSU, "Mite-zapper wins MUCI grant," p. 7, Spring 2002  
MSU Today, "Bees for hire: new web site will offer match-making," Mar 8, 2002  
TV interview by PBS on flower scent and plaque of honey bees, Feb 27, 2002  
Growing GREEN newsletter, "Spartan Mitezapper Saving the Honeybee," Sep. 2001  
The State News, "Honeybees in jeopardy," Oct 8, 2001  
Associated Press, "Field abuzz for bees brought in for pollination," Sept 29, 2001  
Booth News (picked by AP), "Swarms make raid on wasp, hornet killer," Sept 6, 2001  
Kalamazoo Gazette, "Bee lovers abuzz over Michigan invention," front page, July 27, 2001  
Radio interview on a talk show ([www.comedyworld.com](http://www.comedyworld.com)) on insect eating, 2000  
Radio interview by Lansing State Journal (Source for Kid Science on July 5), 2000  
TV interview by News 6 (Lansing) on honey bees and wasps, Sept 2000  
Radio interview by Michigan Farm Radio (Grand Rapids) on bees and mites, Aug 2000  
TV interview by News 6 (Lansing) on honey bees and wasps, Oct 1999

**Editorial Board Member**

Apidologie (International Scientific Board), 2011 -  
The Open Ecology Journal, 2007 –2011 (resigned)  
Entomologia Sinica, 2001 –  
BeeScience, 1992 - 1994  
The Chinese Association of Agricultural Students & Scholars Journal, 1992-1993

**Treasurer**

Overseas China Education Fund ([www.ocef.org](http://www.ocef.org)) 1996-1998

**Vice President**

American Association of Professional Apiculturists, 2012  
MSU Chinese American Faculty Association, 2000-2001  
SINO-Ecologists Club Overseas, 1990

**President**

Chinese Faculty Club, 2010-2011  
President-elect nominee, Intl Union for the Study of Social Insects, N. Amer. Section, 2001  
Overseas Chinese Entomologists Association, 2000  
Apiculture Club, University of Guelph, 1986

**Chair/Vice Chair**

NCR202, Health and survival of honey bee colonies, 2004-2005  
Board of directors, Professor Huang Pi-Cheng Scholarship, 1999-2005  
Board of directors, Chinese Heritage Center, Lansing, Michigan, 1999-2002

**Entomological Society of America**

Section Cd3 Moderator, Annual Meeting of 2002  
Student Competition Moderator, Annual Meeting of 2002, 2001  
Student Competition Judge, Annual Meeting of 2000  
Chair, Section Cb (Apiculture and Social Insects), 2001  
Vice-Chair, Section Cb (Apiculture and Social Insects), 2000  
Secretary, Section Cb (Apiculture and Social Insects), 1999

**Webmaster/Webhost**

<http://cfc.bees.net>, 2010- (Chinese Faculty Club website)  
<http://cyberbee.net>, 1997-2011(Featured in **Science**, NetWatch Section, June 2000)  
<http://sfi.cyberbee.net>, 2000-05 (Santa Fe Institute Social Insect Working Group)  
host: <http://michiganbees.org>, 2004-07, 2011- (Michigan Beekeepers' Association)  
<http://iussi.bees.net>, 2002-08, host: 2010- (Intl Union for the Study of Social Insects, N. Amer. Section)  
<http://www.soscef.org>, 1998, host: 1999-2005 (SOS China Education Fund, now [ocef.org](http://www.ocef.org))

**Member**

IOBC Global Working Group on Transgenic Organisms in IPM and Biocontrol, 2002-2006  
NC1173, Sustainable Solutions to Problems Affecting Bee Health, 2009-2114  
NCR202, Health and survival of honey bee colonies, 1998-2003  
Social Insect Working Group, Santa Fe Institute, 2000-2004  
Award committee, American Association of Professional Apiculturists, 2001

**Photography**

Bee photo (**cover**), [American Bee Journal](#), Sept 2011  
Bee photo (**cover**), [American Bee Journal](#), July 2010  
Bee photo (**cover**), [American Bee Journal](#), May 2008

Bee photo (**covers**), American Bee Journal, March, April, May 2007  
Bee photo (**cover**), Abstracts of "Honey Bee Genomics and Biology", May 2007  
Bee photo (**cover**), MSU Entomology 100 Year Celebration Brochure, Apr 2007  
Bee photo (**cover**), Midwest Beekeepers, Mar 2007  
Bee Photo (**cover**), Chinese Bulletin of Entomology, Jan 2007  
Bee photos (**four, one**), American Bee Journal, Oct, Nov 2006  
Bee photo (**covers**), American Bee Journal, March, June, July, Aug 2006  
Bee photo, Vlaams Nederlandse Imkersfederatie (Beekeeping for Belgium in Netherlands), 2005  
Bee photo, NSF poster for the BeeSpace Project (UIUC), Dec 2005  
Bee photo (**cover**), Bee World, Dec 2005  
Bee photo (**cover**), American Bee Journal, Nov 2005  
Bee photos (two), Journal of Chemical Education 82: 810, Jan 2005  
Bee photo (**cover**), Bee Culture, Oct 2005  
Mite photo (**cover**), German Bee Journal (Bienen), April 2005  
Mite photo, World-Watch 18: 9, Sept/Oct 2005 ('Vampire' mite ravages US honeybee population)  
Bee photo, Science (307:31), Jan 7, 2005  
Bee photo (**cover**), PNAS, Nov 29, 2004  
Bee photo, Science, (<http://sciencenow.sciencemag.org/cgi/content/full/2004/1130/3>)  
Bee photo (**cover**), J. Experimental Biology 207 (19), Nov 2004  
Bee photos (four), Feb 2004 issue of NIH publication No. 04-4932, Findings (web version: <http://www.nigms.nih.gov/news/findings/feb04/sting.html>)  
Bee photo, Turkish Bee Journal, Oct 2004 (p 32) (regarding cyberbee.msu.edu)  
Bee photos (two), Belgium Bee Journal, June, 2004 (pp 14-15)  
Bee photo, Current Biology (14: R178), Mar 9, 2004  
Bee photo, Nature Reviews Genetics (4: 932), Dec 01, 2003  
Bee photo, Science (<http://sciencenow.sciencemag.org/cgi/content/full/2003/1010/3>)  
Bee photo, Science main page, web version of Oct 10, 2003, uncredited  
Bee photo, Science (296: 636), April 2002 (credited on 296: 2336)  
Bee photo (**cover**), Genome Research 12: (4), Apr 2002

## **Service to Michigan State University**

### **College and University Service**

College Academic Counsel, College of Agriculture and Natural Resources, 2011-  
College Graduate Committee, 2005-2007  
Interim CANR representative to the Academic Council/Faculty Council, Fall 2003  
Nominee, University Appeals Board, 2003  
Nominee, CANR representative to the Academic Council/Faculty Council 2002

### **Department Service**

Entomology Graduate Committee, 2002-2009  
Department Advisory Committee (to the Chair), 2005-2007  
Computer Committee, Awards Committee, 2001  
Seminar Committee, 1999-2000  
Seminar speakers hosted: E. Tibbitts, D. Borst, S. Cho, Y. Le Conte, D.C. Marshall, D. Moore, R.E. Page, R.W.K. Punchihewa, G. Gamboa, Z.R. Shen, B. Stay, G.E. Robinson, E. Vargo  
Hutson student proposal reviewer

## **International Experience**

**Australia 2007:** Attending Apimondia Conference, visiting Dr. Denis Anderson at CSIRO.  
**2009:** Visiting Fellow at the Australian National University. Working with Dr. Shaowu Zhang on honey bee navigation and cognition. Seminar at CSIRO, Sydney and Macquarie Universities, and Canberra Beekeeping Associations.

**Canada 1983-1988:** Ph.D. Study. **1999-2009:** regular visits for conferences and research collaborations.

**China 1993:** Teaching and research for 3 months at China Agricultural University.  
**1999-2011:** visiting 1-2 times per year for research and seminars. Collaborations with the following universities/institutes: Beijing Apicultural Research Institute, China Agricultural University, Yunnan Agricultural University, Xishuangbanna Tropical Botanical Garden, Jilin Apicultural Research Institute, Zhejiang University, Fujian Agricultural University. **2008:** Attending and chairing a session at the Asian Apicultural Association Conference in Hangzhou, visiting 4 universities/institutes to establish collaborations. **2009:** Visiting Xishuangbanna Tropical Botanical Garden for research collaborations on pollination ecology of *Primula spp.* **2010:** Plenary speaker of bee protection meeting, visiting 3 universities.

**France 1994:** Attending IUSSI conference, **2002,** Invited by French Beekeepers Association to present four talks, visiting beekeepers and INRA researchers, **2008,** Teaching laboratory techniques at University of Tours.

**Germany 1986:** Attending IUSSI conference. **2004,** Invited to present and attend the retirement workshop for Dr. Bert Hölldobler.

**Haiti 2011:** Teaching beekeepers and college students how to measure LD50 of a honey bee pest, *Varroa destructor*, and biology of small hive beetle and honey bees

**Nepal 2007:** Two week volunteering to teach honey bee biology, beekeeping, honey processing and marketing; visiting apiaries to diagnose diseases and pests.

**New Zealand 2009:** Attending a beekeeper meeting at Christchurch, visiting Dr. Alison Mercer, University of Otago.

**Philippines 2004:** Presenting at Asian Apicultural Association Conference, harvesting *A. dorsata* and *A. cerana* to search for *Varroa* and *Tropilaelaps* mites.

**South Africa 2001:** Presenting at Apimondia Conference, visiting an apiary.

**Spain 2009:** Presenting at a *Nosema* workshop, visiting apiary and lab of M. Higes.

**Taiwan 2006:** Visiting and presenting seminars in Academia Sinica & 3 universities.

**Turkey 2010:** Plenary Speaker at EuroBee Conference, visiting apiaries and speak to beekeepers.

**Thailand 2000:** Presenting at Asian Apicultural Association Conference, searching for *A. dorsata*. 2007: Visiting Burapha University, collecting *A. cerana*.

**United Kingdom 2008:** Invited by a company to provide information on varroa biology.

## Professional Development

### **Workshops and Seminars Attended**

Honey Bee Genomics and Biology, Cold Spring Harbor, NY, May 6-8, 2007, 2010

Artificial insemination of honey bee queens, Ohio State University, June 2006

MSU portal training for extension faculty and staff, Dec 2004

A Field Guide to GenBank and NCBI Molecular Biology Resources, Feb 2004

Summer Fruit Tour and Inservice, Aug 2003

Lilly Teaching Fellowship, MSU, 2002-2003

Workshop on Faculty Fulbright Opportunities, April 2003

USDA grant writing workshop, St Paul, Minnesota, Sept 2002

Cooperative Learning Applications, MSU, Aug 2002

SBIR/STTR Grants: How to Get Funded, MSU, Feb 2002

How to Survive in a Research Intensive Environment-III (A Grant Writing Workshop), MSU, 2001

Computer Workshop: Coldfusion Database Programming (2 day workshop), MSU, 2001

Computer Workshop: Microsoft Access Database (1 day workshop), MSU, 2001

Computer Workshop: Macromedia Flash (1 day workshop), MSU, 2000

Computer Workshop: Macromedia Dreamweaver (1 day workshop), MSU, 2000

How to Survive in a Research Intensive Environment-I (tenure process), MSU, 2000

Using Adobe Photoshop (5 day workshop), UIUC, 1997

Mathematica (1 day workshop), Wolfram Research Inc, 1996  
Computer Programming in C++ 110 (regular course), University of Illinois, 1995  
Computer Programming in APL (short course), University of Guelph, 1985  
Computer Programming in FORTRAN (short course), University of Guelph, 1985

*(Updated 5/11/2012)*