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Education:

Ph.D. Biochemistry – Kansas State University – 1991
M.S. Entomology – Fujian Agricultural University – 1984
B.S. Plant Protection – Hunan Agricultural University – 1981

Professional Experience:

2001 – Current	Lab director, Research Entomologist Agricultural Research Service US Department of Agriculture Professor, adjunct Department of Entomology Kansas State University, Manhattan, KS 66506
1993 – 2000	Instructor, Section of Cancer Biology Washington University, St. Louis, MO 63108
1991 – 1992	Postdoctoral Associate, Section of Cancer Biology Washington University, St. Louis, MO 63108

Editorial Board

2010 – 2012	“Open Journal of Genetics”
2013 – 2014	“Source Journal of Genomics”
2015 – 2021	“Nature – Scientific Reports”
2020 – current	“Insects”

Patents:

1. MS Chen, XM Liu, H Trick (2017) *Mayetiola destructor* susceptibility gene one (*Mds-1*) and its application in pest management. US 2017/ 9587248.

Publications:

1. Baenziger PS, Masterson SD, Boehm JD JR., V. Belamkar V, Barnett MD, Rose DJ, Xu L, Wegulo SN, Regassa T, Easterly AC, Creech CF, Santra DK, Kruger GR, Hergert GW, Klein RN, Jin Y, Kolmer J, **Chen MS**, Hein GL, Bowden RL, Guttieri MJ, Bai G, El-Basyoni Salah I, Poland J (2023) Registration of LCS 'Valiant' Hard Red Winter Wheat. *Journal of Plant Registrations* 17(1): 125-135.
2. Baenziger PS, Frels K, Boehm JD, Rose DJ, Belamkar V, Rose DJ, Xu L, Finnie SM, Wegulo SN, Regassa T, Easterly AC, Creech CF, Santra DK, Klein RN, Jin Y, Kolmer J, **Chen MS**, Bowden RL, Guttieri MJ, Bai G, El-Basyoni Salah I, Masterson SD, Poland J (2023) Registration of 'NW13493' Hard White Winter Wheat. *Journal of Plant Registrations* 17(1): 136-145. 10.1002/plr2.20270.
3. Baenziger PS, Frels KA, Boehm JD, Belamkar V, Rose DJ, Xu L, Wegulo SN, Regassa T, Easterly AC, Creech CF, Santra DK, Klein RN, Jin Y, Kolmer J, **Chen MS**, Guttieri MJ, Bai G, El-Basyoni I, Masterson SD, Poland J (2022) Registration of 'Epoch' hard red winter wheat. *Journal of Plant Registrations* 16(3): 613-621.
4. Zhang G, Martin TJ, Fritz AK, Li Y, Seabourn BW, Chen RY, Bai G, Bowden RL, **Chen MS**, Bowden R, Rupp J, Jin Y, Chen X, Kolmer J, Marshall DS (2022) Registration of 'KS Hamilton' hard red winter wheat. *Journal of Plant Registrations* 16 (1): 73-79.
5. Wei HY, Ye YX, Huang HJ, **Chen MS**, Yang ZX, Chen XM, Zhang CX (2022) Chromosome - level genome assembly for the horned-gall aphid provides insights into interactions between gall-making insect and its host plant. *Ecology and evolution* 12 (4), e8815
6. Chu C, Wang S, Rudd JC, Ibrahim AMH, Xue Q, Devkota RN, Baker JA, Baker S, Simoneaux B, Opena G, Dong H, Liu X, Jessup KE, **Chen MS**, Hui K, Metz R, Johnson CD, Zhang ZS, Liu S (2022) A new strategy for using historical imbalanced yield data to conduct genome-wide association studies and develop genomic prediction models for wheat breeding. *Molecular Breeding* 42 (4): 1-19.
7. Zhang L, Xu Y, **Chen MS**, Su Z, Liu Y, La G, G Bai (2022) Identification of a major QTL for Hessian fly resistance in wheat cultivar 'Chokwang'. *The Crop Journal* 10 (3): 775-782.
8. Zhang G, Fritz AK, Haley SD, Li Y, Bai G, Bowden RL, **Chen MS**, Jin Y, Chen X, Kolmer JA, Seabourn BW, Chen RY, Marshall DS (2021) Registration of 'KS Western Star' hard red winter wheat. *Journal of Plant Registrations* 15: 140-146.
9. Zhang G, Martin TJ, Fritz AK, Li Y, Seabourn BW, Chen RY, Bai G, Bowden RL, Chen MS, Rupp J, Jin Y, Chen X, Kolmer JA, Seabourn BW, Marshall DS (2021) Registration of 'KS Hamilton' hard red winter wheat. *Journal of Plant Registrations* 16 (1): 73-79.
10. Xu Y, La G, Fatima N, Liu Z, Zhang L, Zhao L, **Chen MS**, Bai G (2021) Precise mapping of QTL for Hessian fly resistance in the hard winter wheat cultivar 'Overland'. *Theoretical and Applied Genetics* 134 (12): 3951-3962.
11. Lu Q, Chen X, Yang Z, Bashir NH, Liu J, Cui Y, Shao S, **Chen MS**, Chen H (2021) Molecular and Histologic Adaptation of Horned Gall Induced by the Aphid *Schlechtendalia chinensis* (Pemphigidae). *International Journal of Molecular Science* 22(10): 5166.

12. Chen H, Lu Q, Chen X, Ling X, Liu P, Liu N, Wang W, Zhang J, Qi Q, Ding W, Zhang X, Feng Y, Zhang Y, **Chen MS**, King-Jones K (2021) Genome assembly and methylome analysis of the white wax scale insect provides insight into sexual differentiation of metamorphosis in hexapods. *Molecular Ecology Resources* 21(6): 1983-1995.
13. Wang E, Liu X, Si Z, Li X, Bi J, Dong W, **Chen MS**, Wang S, Zhang J, Song A, Fan F (2021) Volatile Organic Compounds from Rice Rhizosphere Bacteria Inhibit Growth of the Pathogen *Rhizoctonia solani*. *Agriculture* 11: 368.
14. Marburger DA, de Oliveira Silva A, Hunger RM, Edwards JT, Liza Van der Laan, Blakey AM, Kan CC, Garland-Campbell KA, Bowden RL, Yan L, Tilley M, **Chen MS**, Chen RY, Bai G, Jin Y, Kolmer JA, Seabourn BW, Davila-El Rassi G, Rayas-Duarte P, Kerr RM, Carver BF (2021) ‘Gallagher’ and ‘Iba’ hard red winter wheat: Half-sibs inseparable by yield gain, separable by producer preference. *Journal of Plant Registrations* 15(1): 177-195.
15. Zhang G, Martin TJ, Fritz AK, Li Y, Bai G, Bowden RL, **Chen MS**, Jin Y, Chen X, Kolmer JA, Seabourn BW, Chen RY, Marshall DS (2021) Registration of ‘KS Western Star’ hard red winter wheat. *Journal of Plant Registrations* 15(1): 140-146.
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19. Zhang G, Martin TJ, Fritz AK, Li Y, Bai G, Bowden RL, **Chen MS**, Jin Y, Chen X, Kolmer JA, Seabourn BW, Chen RY, and Marshall DS (2020) Registration of ‘KS Dallas’ red winter wheat. *Journal of Plant Registration*. *Journal of Plant Registration* 15: 154-160.
<https://access.onlinelibrary.wiley.com/doi/full/10.1002/plr2.20108.2>
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<https://access.onlinelibrary.wiley.com/doi/full/10.1002/plr2.20104>.
21. Baenziger PS, Graybosch RA, Rose DJ, Xu L, Guttieri MJ, Regassa T, Klein RN, Kruger GR, Santra DK, Hergert GW, Wegulo SN, Jin Y, Kolmer J, Hein GL, Bradshaw J, **Chen MS**, Bai G, Bowden RL, El-Basyoni I, and Lorenz A (2020) Registration of “NE10589” (Husker Genetics brand “Ruth”) Hard Red Winter Wheat’. *Journal of Plant Registration*. 14: 388-397.
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- pest resistances in a northwestern United States elite spring wheat pane. *PloS ONE* 13(2): e0191305.
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and governs susceptibility towards the Hessian fly gall midge. *Nature Communication*. 4: 2070.

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Review Articles and Book Chapters

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Non-refereed publications:

175. Gill B.S., Friebe B., Cainong J.C., Wilson D.L., Raupp W.J., **Chen M.S.**, Pumphrey M.O., Johnson J., Zavatsky L.E., Lukaszewski A.J. (2008) Notice of release of KS09WGGRC51-J and KS09WGGRC51-C Hessian fly-resistant hard red winter wheat and KS09WGGRC51-P Hessian fly-resistant spring wheat germ plasm. *Annual Wheat News Letter*. 55: 271.
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Current Grants and Contracts:

1. **Chen M.S.**, Whitworth R.J. Breeding Perennial Wheat with Hessian fly resistance (\$10,000, 2021-2013).
2. Smith C.M., **Chen M.S.**, Whitworth R.J., and Schwarting H. Impact of temperature on genetic resistance to Hessian fly, wheat curl mite and Russian wheat aphid (\$150,000, 2015-2018).
3. Giles K., Elliott N., Royer T., Hunger R., Epplin F., Puterka G., Armstrong J., McCormack B., **Chen M.S.**, Whitworth R.J., Peairs F., Michels G., Knutson A., and Bradshaw J. iWheat: A Web-based IPM Information and Delivery System to Unify Reduced Risk Management Strategies for Winter Wheat in the Central and Southern

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4. **Chen M.S.**, Liu X., Gill B., and Trick H. Insect Effectors in Molecular Plant-Insect Interaction. (\$453,658. USDA-NIFA AFRI Competitive Grant. KSU portion: \$139,364, 2011-2014)
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 14. **Chen, M.S.** Molecular Correlates of Tumor Proliferation and Radiation Resistance. (\$10,000, Radiation Oncology Center, 1994 - 1995).
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Professional Advisory and Consultant Activities

Member of the NIFA Insects and Nematodes grant panel, 2013.
 Member of the '1890 Capacity Building Grant Peer Review Panel' 2014.