

Selected publications: Jianli Chen

- He, F., W. Wang, W.B. Rutter, K.W. Jordan, J. Ren, E. Taagen, N. Witt, S. Sukumaran, S. Dreisigacker, M. Reynolds, **J. Chen**, J. Cook, G. Brown-Guidera, M. Pumphrey, A. Carter, M. Sorrells, J. Dubcovsky, M. Hayden, A. Akhunova, P. L. Morrell, L. Szabo, M. Rouse, E. Akhunov*. The landscape of genetic effects on gene expression levels in allopolyploid wheat reveals the impact of homoeologous gene dysregulation on agronomic traits. *Nature Communications*. **IF:14.9**. Accepted.
- Isham, K., R. Wang, W. Zhao, J. Wheeler, N. Klassen, E. Akhunov, and **J. Chen***. 2021. QTL mapping for grain yield and three yield components in a population derived from two high-yielding spring wheat cultivars. *Theor Appl Genet*. <https://doi.org/10.1007/s00122-021-03806-1>. **IF: 4.4**.
- Qiao, L., J. Wheeler, R. Wang, K. Isham, N. Klassen, W. Zhao, R. Chowdhury, J. Zheng, **J. Chen***. 2021. Novel QTL for grain cadmium content identified in hard white spring wheat. *Frontier in Plant Science*. *Frontier in Plant Science*. <https://doi.org/10.3389/fpls.2021.756741>. **IF: 5.8**.
- K.W. Jordan, **J. Chen**, 20 co-authors, and E. Akhunov*. 2021. Development of the Wheat Practical Haplotype Graph Database as a Resource for Genotyping Data Storage and Genotype Imputation. *G3 (Genes/Genomes/Genetics)*. <https://doi.org/10.1101/2021.06.10.447944>. **IF: 3.2**.
- Chen, J., J. Wheeler, N. Klassen, W. Zhao, K. O'Brien, C. Jackson, J.M. Marshall, K. Schroeder, and X.M. Chen. 2020. Registration of 'UI Bronze Jade' hard white winter wheat. *Journal of Plant Registration* DOI:10.1002/plr2.20029. **IF: 0.6**
- Gordon, T., R. Wang, B. Bowman, N. Klassen, J. Wheeler, J. M. Bonman, H. Bockelman, and **J. Chen**. 2020. Agronomic and Genetic Assessment of Terminal Drought Tolerance in Two-Row Spring Barley. *Crop Sci*. DOI:10.1002/csc2.20040. **IF: 1.9**
- Gordon, T., R. Wang, D. Hole, H. Bockelman, J. M. Bonman, and **J. Chen***. 2020. Genetic characterization and genome-wide association mapping for dwarf bunt resistance in bread wheat accessions from the USDA National Small Grains Collection. *Theor Appl Genet*. <https://doi.org/10.1007/s00122-020-03532-0>. **IF: 4.4**.
- Wang, R., T. Gordon, D. Hole, W. Zhao, K. Isham, J. M. Bonman, B. Goates, and **J. Chen***. 2019. Identification and Assessment of Two Major QTL for Dwarf Bunt Resistance in Winter Wheat Line 'IDO835'. *Theor Appl Genet*. <https://doi.org/10.1007/s00122-019-03385-2>. **IF: 4.4**.
- Singh, L., J.A Anderson, **J. Chen**, B.S Gill, V.K Tiwari, and N. Rawat. 2019. Development and validation of a perfect KASP marker for Fusarium head blight resistance gene *Fhb1* in wheat. *The Plant Pathology Journal* 35 (3): 200-207. <https://doi.org/10.5423/PPJ.OA.01.2019.0018>.
- Zheng, X., X. Wen, L. Qiao, J. Zhao, X. Zhang, X. Li, Sh. Zhang, Z. Yang, Zh. Chang, **J. Chen***, J. Zheng*. 2019. Genetic dissection of QTrl.saw-2D.2, a major QTL for total seedling root length in wheat. *Planta*. <https://doi.org/10.1007/s00425-019-03154-x>. **IF: 3.2**.
- Shao, Y., M-H. Tsaia, Y. He, **J. Chen**, C. Wilson, A.H. Lin. 2019. Reduction of falling number in soft white spring wheat caused by an increased proportion of spherical B-type starch granules. *Food Chemistry* 284:140–148. **IF: 4.9**.
- Wang, R., Y. Liu, K. Isham, W. Zhao, J. Wheeler, N. Klassen, Y. Hu, J.M., Bonman, **J.**

- Chen***. 2018. QTL identification and KASP marker development for productive tiller and fertile spikelet numbers in two high-yielding hard white wheat cultivars. *Molecular Breeding* 38 (135). Open access. IF: 2.1. <https://doi.org/10.1007/s11032-018-0894-y>.
- Liu, Y., R. Wang, Y. Hu, and **J. Chen***. 2018. Genome-Wide Linkage Mapping of Quantitative Trait Loci for Late-Season Physiological and Agronomic Traits in Spring Wheat under Irrigated Conditions. *Agronomy*, 60. doi:10.3390/agronomy8050060.
- Dong, H., R. Wang, Y. Yuan, J. Anderson, M. Pumphrey, Zh. Zhang, and **J. Chen***. 2018. Evaluation of the Potential for Genomic Selection to Improve Spring Wheat Resistance to Fusarium Head Blight in the Pacific Northwest. *Frontiers in Plant Science*. <https://doi.org/10.3389/fpls.2018.00911>. **IF: 3.7**.
- Bissonnette, K. M., Ph. Wharton, **J. Chen**, J. Marshall. 2018. Survey of *Fusarium* species associated with fusarium head blight of spring wheat (*Triticum aestivum*) in Southeastern Idaho. *Plant Health Progress* 19: 125-127. <https://doi.org/10.1094/php-10-17-0066-S>.
- Liang, X., Y. Liu, **J. Chen**, C. Adams. 2018. Late-season photosynthetic rate and senescence were associated with grain yield in winter wheat of diverse origins. *Journal of Agronomy and Crop Science* 204:1-12 DOI 10.1111/jac.12231.
- Zheng, X., X. Li, Ch. Ge, J. Chang, M. Shi, **J. Chen**, L. Qiao, Zh. Chang, J. Zheng, J. Zhang. 2017. Characterization of the *CCT* family and analysis of gene expression in *Aegilops tauschii*. *Dec. 2017. PLoS ONE*. <https://doi.org/10.1371/journal.pone.0189333>. **IF: 2.8**.
- Assanga, S.O., S. Dhakal, C-T., Tan, J.C. Rudd, G. Zhang, A. Ibrahim, Q. Xue, R. Devkota, S. Haley, **J. Chen**, M. P. Fuentealba, S. Baker, J. Baker. S.Y. Liu. 2017. Mapping of quantitative trait loci for grain yield and its components in a US popular winter wheat using 90K SNPs. *PLoS ONE*. Dec. 2017. DOI 10.1371/journal.pone.0189669. **IF: 2.8**.
- Liang, X., D. Strawn, **J. Chen**, J.M. Marshall. 2017. Variation in cadmium accumulation in spring wheat cultivars: uptake and redistribution to grain. *Plant and Soil* 421:219-231 DOI 10.1007/s11104-017-3454-z. **IF: 3.3**.
- Chen, J***, J. Wheeler, N. Klassen, W. Zhao, K. O'Brien, C. Jackson, J. M. Marshall, X.M. Chen. 2017. Registration of 'UI Sparrow' wheat. *Journal of Plant Registration*. Open access. DOI: 10.3198/jpr2017.04.0021cr.
- Liu, Y., B.C. Bowman, Y. Hu, X. Liang, W. Zhao, J. Wheeler, N. Klassen, H. Bockelman, J. M. Bonman, **J. Chen***. 2017. Evaluation of agronomic traits and drought tolerance of winter wheat accessions from the National Small Grain Collection. *Agronomy* 7: 51. DOI:10.3390/agronomy7030051.
- Wang, R., **J. Chen***, J. Zhang, W. Zhao, J. Wheeler, N.Klassen, J.A. Anderson, D.R. See and Y. Dong. 2017. Genome-Wide Association Mapping of Resistance QTL to Fusarium Head Blight in Spring Wheat Lines Grown in Pacific Northwest and CIMMYT. *Phytopathology*. DOI: 10.1094/PHYTO-02-17-0073-R. **IF: 3.0**.
- K.L. Jernigan, C. F. Morris, R. Zemetra, **J. Chen**, K. Garland-Campbell, A.H. Carter. 2017. Genetic mapping of quantitative trait loci for end-use quality traits in a soft wheat RIL population. *Journal of Cereal Science*. DOI: 10.1016/j.jcs.2017.06.005. **IF: 2.3**.
- Liu, Y., P. Li, J. Zhang, Y. Hu, and **J. Chen***. 2016. Dwarfing genes *Rht4* and *Rht-B1b* affect plant height, agronomic traits, and kernel quality traits in common wheat under

two water regimes. *Field Crops Research* Vol. 204: 242-248. DOI: 10.1016/j.fcr.2017.01.020. **IF: 4.0.**

- J. Chen***, M. J. Guttieri, J. Zhang, D. Hole, E. Souza, B. Goates. 2016. A novel QTL associated with dwarf bunt resistance in Idaho 444 winter wheat. *Theor Appl Genet.* 129(12): 2313-2322. DOI 10.1007/s00122-016-2783-2. **IF: 3.9.**
- J. Chen***, J. Wheeler, K. O'Brien, W. Zhao, N. Klassen, J. Zhang, B. Bowman, Y. Wang, C. Jackson, J. M. Marshall, X.M. Chen. 2015. Registration of 'UI Platinum' Hard White Spring Wheat. *J. Plant Registration* 10: 36-40. DOI:10.3198/jpr2015.06.0037crc.
- Bowman, B., **J. Chen***, J. Zhang, J. Wheeler, Y. Wang, W. Zhao, S. Nayak, N. Heslot, H. Bockelman, and J.M. Bonman. 2015. Evaluating grain yield in spring wheat with canopy spectral reflectance. *Crop Sci.*55:1881 – 1890.
- Bonman, J.M., E. M. Babiker, A. Cuesta-Marcos, K. Esvelt-Klos, G. Brown-Guedira, Sh. Chao, D. See, **J.Chen**, E. Akhunov, J. Zhang, H. E. Bockelman, and T. C. Gordon. 2015. Genetic Diversity among Wheat Germplasm-Bank Accessions. *Crop Sci.* 55:1243 – 1253.
- Sherman, J.D., N. K. Blake, J. M. Martin, K. D. Kephart, D. K. Weaver, S. P. Lanning, H.-Y. Heo, M. Pumphrey, **J. Chen**, and L. E. Talbert. 2015. Impact of a major gene for stem solidness on agronomic performance of spring wheat near-isogenic lines. *Crop Sci.* 55 (2): 514-520.
- Zhang, J., **J. Chen***, Ch. Chu, W. Zhao, J. Wheeler, E. Souza, and R. Zemetra. 2014. Genetic dissecting of QTL associated with grain yield in diverse environments. *Agronomy* 4(4): 556-578.
- Zhang, J., **J. Chen***, Y. Wang, B. Bonman, J. Wheeler, W. Zhao, K. O'Brien, J.M. Marshall, H. Bockelman, and J. Bonman. 2014. Association mapping of Hagberg falling number in hard white spring wheat collection materials. *Crop Science* 54:1243–1252.
- Chen, J***, G. Hu, C. Chu, and Y. Wu. 2013. STS markers developed from drought tolerance candidate genes and mapped in two mapping populations and one set of nulli-tetrasomic lines of common wheat (*Triticum aestivum*). *Cereal Communication DOI: 10.1556/CRC.2013.0056.*
- Liu, Sh., C.A. Griffey, M.D. Hall, A. L. McKendry, **J. Chen**, W.S. Brooks, G. Brown-Guedira, D. Van Sanford, D.G. Schmale. 2013. Molecular characterization of field resistance to Fusarium head blight in two US soft red winter wheat cultivars. *Theor Appl Genet* DOI 10.1007/s00122-013-2149-y.
- Chen, J***, J. Wheeler, J. Clayton, W. Zhao, K. O'Brien, C. Jackson, J. M. Marshall, B.D. Brown, K. Campbell, X.M. Chen, R. Zemetra, and E.J. Souza. 2013. Registration of 'UI Stone' Wheat. *J. Plant Registration* 7: 321 – 326.
- Chen, J***, Ch. Chu, E.J. Souza, M.J. Guttieri, X. Chen, S. Xu, D. Hole, and R. Zemetra. 2012. Whole genome-wide mapping for high-temperature adult-plant resistance to stripe rust (*Puccinia striiformis* f. sp. *tritici*) in a hard red winter wheat germplasm IDO444. *Molecular Breeding* 29: 791 – 800.
- Chen, J***, E.J. Souza, D. Hole, M.J. Guttieri, K. O'Brien, J. Wheeler, L. Sorensen, J. Clayton, R. Zemetra, J.M. Marshall, and X. Chen. 2012. Registration of 'UI SRG' Wheat. *J. Plant Registration* 6 (2): 66-70.
- Chen, J***, C.A. Griffey, S. Liu, and M.A. Saghai Maroof. 2012. Registration of 'VA04W-

- 433' and 'VA04W-474' Wheat Germplasm. *J. Plant Registration* 6 (1): 111-116.
- Liu, S.Y.**, C.A. Griffey, M.D. Hall, **J. Chen**, S. Liu, D. Tucker, W.S. Brooks. 2012. Registration of Becker/Massey Wheat Recombinant Inbred Line Mapping Population. *J. Plant Registration* 3:358-362.
- Li, P., **J. Chen***, and P. Wu. 2012. Evaluation of grain yield and three physiological traits in 30 spring wheat genotypes across three irrigation regimes. *Crop Sci* 52 (1): 110-121.
- Li, P., P. Wu, and **J. Chen***. 2012. Evaluation of flag leaf chlorophyll content index in 30 spring wheat genotypes under three irrigation regimes. *Australian Journal of Crop Science*, 6:1123-1130.
- Li, P., **J. Chen***, P. Wu, J. Zhang, Ch. Chu, D. See, G. Brown-Guedira, R. Zemetra, and E. Souza. 2011. QTL analysis for the effect of *RhtB1* dwarfing gene on coleoptiles length, seedling root length and numbers of bread wheat (*Triticum aestivum* L.). *Crop Sci* 51: 2561-2568.
- Li, P., **J. Chen***, and P. Wu. 2011. Agronomic characteristics and grain yield of 30 spring wheat genotypes under drought stress and non-stress conditions. *Agronomy Journal* 103 (6): 1619-1628.
- Li, P., P. Wu, and **J. Chen***. 2011. Water use efficiency and nitrogen use efficiency of 30 spring wheat genotypes under drought stress and well-watered conditions. *International Agricultural Engineering Journal*, 20:8-17.
- Chao, S., J. Dubcovsky, J. Dvorak, M.C. Luo, P.S. Baenziger, R. Matnyazov, D.R. Clark, L. Talbert, J.A. Anderson, S. Dreisigacker, K. Glover, **J. Chen**, K. Campbell, P.L. Bruckner, J.C. Rudd, S. Haley, B.F. Carver, R. Sims, M.E. Sorrells, and E. Akhunov. 2011. Homoeolog-specific patterns of linkage disequilibrium and SNP variation in hexaploid wheat. *BMC Genomics* 11: 727-744.
- Chen, J***, E.J. Souza, N.A. Bosque-Pérez, M.J. Guttieri, K.L. O'Brien, J.M. Windes, S.O. Guy, B.D. Brown, X.M. Chen, and R.S. Zemetra. 2010. Registration of 'UI Winchester' Wheat. *J. Plant Registration* 4:1 - 4.
- Griffey, C.A., W. E. Thomason, R. M. Pitman, B. R. Beahm, J. J. Paling, **J. Chen**, J. K. Fanelli, J. C. Kenner, D. W. Dunaway, W. S. Brooks, M. E. Vaughn, E.G. Hokanson, H. D. Behl, R. A. Corbin, J. T. Custis, C. M. Waldenmaier, D. E. Starner, S. A. Gulick, S. R. Ashburn, D. L. Whitt, H. E. Bockelman, E. J. Souza, D. L. Long, Y. Jin, X. Chen, and S. E. Cambron. 2010. Registration of 'Jamestown' Wheat. *J. Plant Registration* 4: 28 – 33.
- Chen, J***, E. J. Souza, R. S. Zemetra, N. A. Bosque-Pérez, M. J. Guttieri, J. Wheeler, K. M. O'Brien, J. W. Windes, S. O. Guy, B. D. Brown, X. M. Chen. 2009. Registration of 'Cataldo' Spring Wheat. *J. Plant Registration* 3: 264 – 268.
- Zhou, K., J. Hao, C. Griffey, H. Chung, S. F. O'Keefe, **J. Chen**, and Sh. Hogan. 2007. Antioxidant Properties of Fusarium Head Blight-Resistant and-Susceptible Soft Red Winter Wheat Grains Grown in Virginia. *J. Agric. Food Chem.*, 2007, 55 (9), 3729-3736.
- Chen, J***, C. A. Griffey, M. A. Saghai Maroof, E. L. Stromberg, R. M. Biyashev, W. Zhao, M. R. Chappell, T. H. Pridgen, Y. Dong, and Z. Zeng. 2006. Validation of Two Major QTL for *Fusarium* Head Blight Resistance in Chinese Wheat Line W14. *Plant Breeding* 125: 99-101. Conceptualized this study, wrote and revised manuscript.