

Publications acknowledging WheatCAP support

WheatCAP https://scholar.google.com.ar/citations?hl=en&user=sfX8Cx8AAAAJ&view_op=list_works&sortby=pubdate

TCAP https://scholar.google.com.au/citations?hl=en&user=ZKZkq98AAAAJ&view_op=list_works&sortby=pubdate

2017 publications

(60 publications, 318 cross citations in first two years)

1. Addison, C.K., R.E. Mason, G. Brown-Guedira, M. Guedira, Y. Hao, D.L. Lozada, A.M. Acuna, N.A. Arguello, N. Subramanian, J. Johnson, A.M.H. Ibrahim, R. Sutton, S.A. Harrison. 2016. QTL and major genes associated with grain yield in soft red winter wheat adapted to the southern United States. *Euphytica*. 209: 665-677.
2. Arruda, M.P., P. Brown, G. Brown-Guedira, A.M. Krill, C. Thurber, K.R. Merrill, B.J. Foresman, F.L. Kolb. 2016. Genome-wide association mapping of Fusarium head blight resistance in wheat using genotyping-by-sequencing. *Plant Genome* 9(1) doi: 10.3835/plantgenome2015.04.0028
3. Assanga, S.O., M. Fuentealba, G. Zhang, C. Tan, S. Dhakal, J.C. Rudd, A.M.H. Ibrahim, Q. Xue, S.D. Haley, J. Chen, S. Chao, J. Baker, K. Jessup, S.Y. Liu. 2017. Mapping of quantitative trait loci for grain yield and its components in a US popular winter wheat TAM 111 using 90K SNPs. *PLOS ONE* 12: e0189669
4. Assanga, S.O., G. Zhang, C.-T. Tan, J.C. Rudd, A. Ibrahim, Q. Xue, S. Chao, M.P. Fuentealba, S.Y. Liu. 2016. Saturated genetic map of wheat streak mosaic virus resistance gene *wsm2* in wheat. *Crop Sci*. 57:332-339.
5. Babiker, E.M., T.C. Gordon, S. Chao, M.N. Rouse, R. Wanyera, M. Newcomb, G. Brown-Guedira, Z.A. Pretorius, J.M. Bonman. 2016. Genetic mapping of resistance to the Ug99 race group of *Puccinia graminis* f. sp. *tritici* in a spring wheat landrace CItr 4311. *Theor Appl Genet* 2016:1-10.
6. Babiker, E.M., T.C. Gordon, S. Chao, M.N. Rouse, R. Wanyera, M. Acevedo, G. Brown-Guedira, M. Bonman. 2016. Molecular mapping of stem rust resistance loci effective against the Ug99 race group of the stem rust pathogen and validation of a single nucleotide polymorphism marker linked to stem rust resistance gene *Sr28*. *Phytopathology* 107:208-215.
7. Babiker, E.M., T.C. Gordon, J.M. Bonman, S. Chao, M.N. Rouse, G. Brown-Guedira, S. Williamson, Z.A. Pretorius. 2016. Rapid identification of resistance loci effective against *Puccinia graminis* f. sp. *tritici* race TTKSK in 33 spring wheat landraces. *Plant Dis*. 1002: 331-336.

8. Carter A.H., S.S. Jones, K.A. Balow, G.B. Shelton, A. Burke, S.R. Lyon, R.W. Higginbotham, X.M. Chen, D.A. Engle, T.D. Murray, C.F. Morris. 2017. Registration of ‘Jasper’ soft white winter wheat. *J. Plant Reg.* 10.3198/jpr2016.09.0051crc.
9. Carter A.H., S.S. Jones, S.R. Lyon, K.A. Balow, G.B. Shelton, A. Burke, R.W. Higginbotham, X.M. Chen, D.A. Engle, C.F. Morris. 2017. Registration of ‘Sequoia’ hard red winter wheat. *Journal of Plant Registrations* 10.3198/jpr2016.09.0052crc.
10. Carter A.H., K.K. Kidwell, A. Burke, G.B. Shelton, R.W. Higginbotham, V. DeMacon, M.J. Lewien, X.M. Chen, D.A. Engle, C.F. Morris. 2017. Registration of ‘Earl’ hard white winter wheat. *Journal of Plant Registrations* 11:275-280.
11. Cai J., S. Wang, T Li, G. Bai. 2016. Multiple minor QTLs are responsible for Fusarium head blight resistance in Chinese wheat landrace Haiyanzhong. *PloS ONE* 11:e0163292
12. Chao, S., M.N. Rouse, M. Acevedo, A. Szabo-Hever, H. Bockelman, J.M. Bonman, E. Elias, D. Klindworth, and S. Xu. 2017. Evaluation of genetic diversity and host resistance to stem rust in USDA NSGC durum wheat accessions. *Plant Genome* 10. doi: 10.3835/plantgenome2016.07.0071
13. Chen, J., 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: 2313-2322.
14. Chen, J., J. Wheeler, N. Klassen, W. Zhao, K. O’Brien, C. Jackson, J. M. Marshall, X.M. Chen. 2017. Release of ‘UI Sparrow’ soft white winter wheat. *Journal of Plant Registration*, 12: 79-84.
15. Cook, J. P., N. K. Blake, H. Y. Heo, J. M. Martin, D. K. Weaver, and L. E. Talbert. 2017. Phenotypic and haplotype diversity among tetraploid and hexaploid wheat accessions with potentially novel insect resistance genes for wheat stem sawfly. *Plant Genome* 10. doi:10.3835/plantgenome2016.03.0026.
16. Dong, Z, J. Zhang, J. M. Hegarty, W. Zhang, S. Chao, X. Chen, Y. Zhou, and J. Dubcovsky. 2017. Validation and characterization of a QTL for adult plant resistance to stripe rust on wheat chromosome arm 6BS (*Yr78*). *Theor. Appl. Genet.* 130:2127–2137.
17. Fang, T., B.F. Carver, R.M. Hunger, L. Yan. 2017. Mis-spliced *Lr34* transcript events in winter wheat. *PLoS ONE* 12:e0171149.
18. Gao, L., M.N. Rouse, P. Mihalyov, P. Bulli, M. Pumphrey, J.A. Anderson. 2017. Genetic characterization of stem rust resistance in a global spring wheat germplasm collection. *Crop Science.* 57:2575-2589.
19. Guedira, M., M. Xiong, Y.F. Hao, J. Johnson, S. Harrison, D. Marshall, G. Brown-Guedira. 2016. Heading date QTL in winter wheat (*Triticum aestivum* L.) coincide with major developmental genes *VERNALIZATION1* and *PHOTOPERIOD1*. *PLoS ONE*, 11: e0154242.
20. Guttieri, M.J., K. Frels, T. Regassa, B.M. Waters, P.S. Baenziger. 2017. Variation for nitrogen use efficiency traits in current and historical Great Plains hard winter wheat. *Euphytica* 213:87. doi:10.1007/s10681-017-1869-5.

21. Haley S.D., J.J. Johnson, F.B. Peairs, J.A. Stromberger, E.E. Hudson-Arns, S.A. Seifert, V.A. Anderson, G. Bai, X. Chen, R.L. Bowden, Y. Jin, J.A. Kolmer, M. Chen, and B.W. Seabourn. 2017. Registration of 'Sunshine' Hard White Winter Wheat. *J. Plant Reg.* doi:10.3198/jpr2016.12.0075crc.
22. Jernigan, K.L., C. F. Morris, R. Zemetra, J. Chen, K. Garland-Campbell, A.H. Carter. 2017. Genetic analysis of soft white wheat end-use quality traits in a club by common wheat cross. *Journal of Cereal Science.* 76:148-156
23. Kidwell, K.K., M. O. Pumphrey, J. S. Kuehner, G. B. Shelton, V. L. DeMacon, S. Rynearson, X. M. Chen, S. O. Guy, D. A. Engle, B.-K. Baik, C. F. Morris, and N. A. Bosque-Pérez. 2017. Registration of 'Glee' Hard Red Spring Wheat. *Journal of Plant Registrations* 12:60-65.
24. Kissing Kucek, L., E. Dyck, J. Russell, E. Clark, J. Hamelman, S. Burns-Leader, S. Senders, J. Jones, D. Benscher, M. Davis, G. Roth, S. Zwinger, M.E. Sorrells, J.C. Dawson. 2017. Evaluation of wheat and emmer varieties for artisanal baking, pasta making, and sensory quality. *J. Cereal Science,* 74:19-27.
25. Krasileva, K.V., H. Vasquez-Gross, T. Howell, P. Bailey, F. Paraiso, L. Clissold, J. Simmonds, R. H. Ramirez-Gonzalez, X. Wang, P. Borrill, C. Fosker, S. Ayling, A. Phillips, C. Uauy, J. Dubcovsky. 2017. Uncovering hidden variation in polyploid wheat. *Proc. Natl. Acad. Sci. U.S.A.* 114: E913–E921.
26. Kruse, E.B., S.W. Carle, N. Wen, D.Z. Skinner, T.D. Murray, K.A. Garland-Campbell, A.H. Carter. 2017. Genomic regions associated with tolerance to freezing stress and snow mold in winter wheat. *G3* 7: 775-780 Early Online Published January 30, 2017.
27. Lan, C., I. Lowe Hale, S. Herrera, B. R. Basnet, M. Randhawa, J.H. Espino, J. Dubcovsky, R.P. Singh. 2017. Characterization and mapping of leaf rust and stripe rust resistance loci in hexaploid wheat lines UC1110 and PI610750 under Mexican environments. *Frontiers in Plant Sciences* 8:1450
28. Liang, X., Y. Liu, J. Chen, and C. Adams. 2017. Late-season photosynthetic rate and senescence were associated with grain yield in winter wheat of diverse origins. *J. Agro Crop Sci.* DOI: 10.1111/jac.12231.
29. Li C-L., G. Bai, B. F. Carver, S. Chao and Z. Wang. 2016. Single nucleotide polymorphisms linked to quantitative trait loci for grain quality traits in wheat. *The Crop J.* 4:1–11.
30. Li, C., Li, C., Carver, B. F., Bowden, R., Su, Z., Wang, Z., Bai, G. 2017. Mapping of Quantitative Trait Loci for Leaf Rust Resistance in the Wheat Population Ning7840 × Clark. *Plant Dis.* <https://doi.org/10.1094/PDIS-12-16-1743-RE>
31. Lin M., D. Zhang, S. Liu, G. Zhang, J. Yu, A. K. F. and G. Bai. 2016. Genome-wide association analysis on pre-harvest sprouting resistance and grain color in U.S. winter wheat. *BMC Genomics* 17:794
32. Liu, Y., J.Zhang, Y. Hu, and J. Chen. 2017. 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* 204: 242-248.

33. 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.
34. Liu, M., L. Lei, C. Powers, Z. Liu, K.G. Campbell, X. Chen, R.L. Bowden, B.F. Carver, L. Yan. 2016. TaXA21-A1 on chromosome 5AL is associated with resistance to multiple pests in wheat. *Theoretical and Applied Genetics*. 129:345-355.
35. Liu, N, G. Bai, M. Lin, X.Y. Xu, W.M. Zheng. 2017. Genome-wide association analysis of powdery mildew resistance in U.S. winter wheat. *Sci Rep*. 7: 11743.
36. Lozada, D.N., R.E. Mason, M.D.A. Babar, B.F. Carver, G. Brown-Guedira, K. Merrill, M.N. Arguello, A. Acuna, L. Vieira, A. Holder, C.K. Addison, D.E. Moon, R.G. Miller, and S. Dreisigacker. 2017. Association mapping reveals loci associated with multiple traits that affect grain yield and adaptation in soft winter wheat. *Euphytica*. 213: 222.
37. Lu, Y., Bowden, R. L., Zhang, G., Xu, X., Fritz, A. K., Bai, G.. 2017. Quantitative trait loci for slow-rusting resistance to leaf rust in doubled haploid wheat population CI13227 x Lakin. *Phytopathology* 107:1372-1380.
38. Mason, R.E., Addison C.K., Babar M.D.A, Acuna, A., Lozada, D.N., Subramanian, N., Arguello, M.N., Miller, R.G., Brown-Guedira, G., Guedira, M., Johnson, J.W. 2017. Diagnostic markers for vernalization and photoperiod loci improve genomic selection for grain yield and spectral reflectance in wheat. *Crop Science*. 58:242-252.
39. Mihalyov, P.D., V.A. Nichols, P. Bulli, M.N. Rouse, M.O. Pumphrey. 2017. Multi-locus mixed model analysis of stem rust resistance in winter wheat. *The Plant Genome*. 10(2). doi: 10.3835/plantgenome2017.01.0001.
40. Muleta, K.T., M.N. Rouse, S. Ryneerson, X. Chen, B. G. Buta, and M.O. Pumphrey. 2017. Characterization of molecular diversity and genome-wide mapping of loci associated with resistance to stripe rust and stem rust in Ethiopian bread wheat accessions. *BMC Plant Biology*. 17, 13
41. Muleta, K.T., P. Bulli, S. Ryneerson, X. Chen, and M. Pumphrey. 2017. Loci Associated with Resistance to Stripe Rust (*Puccinia striiformis* f. sp. *tritici*) in a core collection of spring wheat (*Triticum aestivum*). *Plos One*. 12(6): e0179087.
42. Muleta, K.T., P. Bulli, Z. Zhang, X. Chen, and M. Pumphrey. 2017. Unlocking diversity in germplasm collections by genomic selection: a case study based on quantitative adult plant resistance to stripe rust in spring wheat. *The Plant Genome*. 10(3) doi: 10.3835/plantgenome2016.12.0124
43. Nirmala, J., J. Saini, M. Newcomb, P. Olivera, S. Gale, D. Klindworth, E. Elias, L. Talbert, S. Chao, J. Faris, S. Xu, Y. Jin, and M.N. Rouse. 2017. Discovery of a novel stem rust resistance allele in durum wheat that exhibits differential reactions to Ug99 isolates. *G3*. 7: 3481-3490.
44. Pour, H.A., M.R. Bihamta, V. Mohammadi, S.A. Peyghambari, G.H. Bai and G.R. Zhang. 2017. Genotyping-by-sequencing (GBS) revealed molecular genetic diversity of Iranian wheat landraces and cultivars. *Front. Plant Sci*. 8:1293.

45. Sallam, A.H., P. Tyagi, G. Brown-Guedira, G. Muehlbauer, A. Hulse, B.J. Steffenson. 2017. Genome-wide association mapping of stem rust resistance in *Hordeum vulgare* subsp. *spontaneum*. *G3: Genes, Genomes, Genetics*: g3-300222.
46. Schönhofen, A., X. Zhang, and J. Dubcovsky. 2017. Combined mutations in five wheat *Starch Branching Enzyme II* genes increase resistant starch but affect grain yield and bread-making quality. *Journal of Cereal Science* 75: 165-174.
47. Shi F., J. Tibbits, R.K. Pasam, P. Kay, D. Wong, J. Petkowski, K.L. Forrest, B.J. Hayes, A. Akhunova, J. Davies, S. Webb, G.C. Spangenberg, E. Akhunov, M.J. Hayden, H.D. Daetwyler. 2017. Exome sequence genotype imputation in globally diverse hexaploid wheat accessions. *Theor Appl Genet.* 130:1393-1404.
48. Su Z., S. Jin, Y. Lu, G. Zhang, S. Chao, G. Bai. 2016. Single nucleotide polymorphism tightly linked to a major QTL on chromosome 7A for both kernel length and kernel weight in wheat. *Mol Breed.* 36:15
49. Subramanian, N., R.E. Mason, E.A. Milus, D.E. Moon, G. Brown-Guedira. 2016. Characterization of two adult-plant stripe rust resistance genes on chromosomes 3BS and 4BL in soft red winter wheat. *Crop Science* 56:143-153
50. Tan, C.-T, S.O. Assanga, G. Zhang, J.C. Rudd, S. Haley, Q. Xue, A. Ibrahim, G. Bai, X. Zhang, P. Byrne, M.P. Fuentealba, S.Y. Liu. 2017. Development and validation of KASP SNP markers for wheat streak mosaic virus resistance gene *Wsm2*. *Crop Sci.* 57:340-349.
51. Tan, C.-T., H. Yu, Y. Yang, X. Xu, M. Chen, J.C. Rudd, Q. Xue, A. Ibrahim, L. Garza, S. Wang, M.E. Sorrells, S.Y. Liu. 2017. Development and validation of KASP markers for the greenbug resistance gene *Gb7* and the Hessian fly resistance gene *H32* in wheat. *Theor Appl Genet*: 1-18.
52. Turner, M.K., J.A. Kolmer, M.O. Pumphrey, P. Bulli, S. Chao, and J.A. Anderson. 2017. Association mapping of leaf rust resistance loci in a spring wheat core collection. *Theor . Appl. Genet.* 130:345–361.
53. Uauy, C., B.B.H. Wulff, and J. Dubcovsky. 2017. Combining traditional mutagenesis with new high-throughput sequencing and genome editing to reveal hidden variation in polyploid wheat. *Annu. Rev. Genet.* 51: 435–454.
54. Varella, A. C., D. K. Weaver, J. P. Cook, N. K. Blake, M. L. Hofland, P. F. Lamb, L. E. Talbert. 2017. Characterization of resistance to the wheat stem sawfly in spring wheat landrace accessions from targeted geographic regions of the world. *Euphytica* 213:153.
55. Varella, A., D. Weaver, R. Peterson, J. Sherman, M. Hofland, N. Blake, J. Martin, L. Talbert. 2017. Host plant quantitative trait loci affect specific sequences in oviposition by a stem-mining insect. *Theor. Appl. Genet.* 130:187-197.
56. Veenstra, L.D., J-L. Jannink, M.E. Sorrells. 2017. Wheat fructans: a potential breeding target for nutritionally improved, climate resilient varieties. *Crop Science* 57:1624–1640.
57. 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 fusarium head blight resistance in spring wheat lines developed in the Pacific Northwest and CIMMYT. *Phytopathology* 107: 1486-1495.

58. Yu, L-X, S. Chao, R.P. Singh and M.E. Sorrells. 2017. Identification and Validation of Single Nucleotide Polymorphic Markers Linked to Ug99 Stem Rust Resistance in Spring Wheat. PLOS ONE. 12: e0171963.
59. Zhang, W., S. Chen, Z. Abate, J. Nirmala, M. Rouse, and J. Dubcovsky. 2017. Identification and characterization of *Sr13*, a tetraploid wheat gene that confers resistance to the Ug99 stem rust race group. Proc. Natl. Acad. Sci. U.S.A. 114: E9483–E9492.
60. Zhou, Y., B. Conway, D. Miller, D. Marshall, A. Cooper, P. Murphy, S. Chao, G. Brown-Guedira and J. Costa. 2017. Quantitative trait loci mapping for spike characteristics in hexaploid wheat. Plant Genome. 10. doi:10.3835/plantgenome2016.10.0101

2018 Publications

(46 publications)

1. Anderson, J.A., J.J. Wiersma, G.L. Linkert, S. Reynolds, J.A. Kolmer, Y. Jin, M. Rouse, R. Dill-Macky, G.A. Hareland, and J.-B. Ohm. 2018. Registration of 'Norden' hard red spring wheat. J. Plant Registrations. 12:90–96.
2. Anderson, J.A., J.J. Wiersma, G.L. Linkert, S. Reynolds, J.A. Kolmer, Y. Jin, M. Rouse, R. Dill-Macky, G.A. Hareland, and J.-B. Ohm. 2018. Registration of 'Linkert' spring wheat with good straw strength and adult plant resistance to the Ug99 family of stem rust races. J. Plant Registrations 12:208–214.
3. Anderson, J.A., J.J. Wiersma, G.L. Linkert, S. Reynolds, J.A. Kolmer, Y. Jin, M. Rouse, R. Dill-Macky, G.A. Hareland, and J.-B. Ohm. 2018. Registration of 'Bolles' hard red spring wheat with high grain protein concentration and superior baking quality. J. Plant Registrations 12:215-221.
4. Ando, K., S. Ryneerson, K. T. Muleta, J. Gedamu, B, Girma, N. Bosque-Pérez, M. S. Chen, M. O. Pumphrey. 2018. Genome-Wide Associations for Multiple Pest Resistances in a Northwestern United States Elite Spring Wheat Panel. Plos One 13: e0191305.
5. Ayana GT, Ali S, Sidhu JS, Gonzalez Hernandez JL, Turnipseed B and Sehgal SK (2018) Genome-wide association study for spot blotch resistance in hard winter wheat. *Front. Plant Sci.* 9:926. doi:10.3389/fpls.2018.00926.
6. Bai, G., Z. Su, J. Cai. 2018. Wheat resistance to fusarium head blight. Can J. Plant Pathol doi.org/10.1080/07060661.2018.1476411.
7. Belamkar, V, M.J. Guttieri, W. Hussain, D. Jarquín, I. El-basyoni, J. Poland, A. J. Lorenz, P.S. Baenziger. 2018. Genomic Selection in Preliminary Yield Trials in a Winter Wheat Breeding Program. G3: Genes, Genomes, Genetics. 8:2735. doi:10.1534/g3.118.200415
8. Blake, N. K., A. C. Varella, B. Bicego, J. M. Martin, J. P. Cook, H.-Y. Heo, R. Acharya, J. D. Sherman, D. Nash, L. E. Talbert. 2018. Maturity traits related to climate adaptation affect quality characteristics in hard red spring wheat. Crop Sci. 58:1954-1963.

9. Case, A.J., S. Bhavani, G. Macharia, Z. Pretorius, V. Coetzee, F. Kloppers, P. Tyagi, G. Brown-Guedira, B.J. Steffenson. 2018. Mapping adult plant stem rust resistance in barley accessions Hietpas 5 and GAW 79. *Theor Appl Genet.* doi.org/10.1007/s00122-018-3149-8
10. Chen, S., Y. Guo, J. Briggs, F. Dubach, S. Chao, W. Zhang, M.N. Rouse, J. Dubcovsky. 2018. Mapping and characterization of wheat stem rust resistance genes *SrTm5* and *Sr60* from *Triticum monococcum* *Theor. Appl. Genet.* 131: 625-635.
11. Chen, S., W. Zhang, S. Bolus, M.N. Rouse, J. Dubcovsky. 2018. Identification and characterization of wheat stem rust resistance gene *Sr21* effective against the Ug99 race group. *PLOS Genetics.* 14: e1007287.
12. Cook, J.; Heo, H.-Y. Varella, A., Lanning, S., Blake, N, Sherman, J. D, Martin, J., See, D. R, Chao, S., L. Talbert. 2018. Evaluation of a QTL mapping population comprised of hard red spring and winter wheat alleles using various marker platforms. *Crop Sci.* 58:701-712.
13. Dong H, R. Wang, Y. Yuan, J. Anderson, M. Pumphrey, Z. Zhang, 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.* 9: 911.
14. Edae, E. A., M.O. Pumphrey, and M.N. Rouse. 2018. A genome-wide association study of field and seedling response to individual stem rust pathogen races reveals combinations of race-specific genes in North American spring wheat. *Frontiers in Plant Science* 9:52.
15. Elbasyoni I.S., A.J. Lorenz, M. Guttieri, K. Frels, P.S. Baenziger, J. Poland, E. Akhunov. 2018. A comparison between genotyping-by-sequencing and array-based scoring of SNPs for genomic prediction accuracy in winter wheat. *Plant Sci.* 270:123-130.
16. El-Feki, W.M., P.F. Byrne, S.D. Reid, and S.D. Haley. 2018. Mapping quantitative trait loci for agronomic traits in winter wheat under different soil moisture levels. *Agronomy* 8: 133.
17. Frels, K., M. Guttieri, B. Joyce, B. Leavitt, P.S. Baenziger. 2018. Evaluating canopy spectral reflectance indices to estimate nitrogen use traits in hard winter wheat. *Field Crops Research* 217:82. DOI : [10.1016/j.fcr.2017.12.004](https://doi.org/10.1016/j.fcr.2017.12.004)
18. Gardiner, L.-J., T. Brabbs, A. Akhunova, K. Jordan, H. Budak, T. Richmond, S. Singh, L. Catchpole, E. Akhunov, A. Hall. 2018. Integrating genomic resources to present full gene and promoter capture probe sets for bread wheat. *bioRxiv.* 363663.
19. Gizaw, S.A., J.G.V. Godoy, K. Garland-Campbell, A.H. Carter. 2018. Using spectral reflectance as proxy phenotypes for genome-wide association studies of yield and yield stability in Pacific Northwest winter wheat. *Crop Science* 58:1232-1241.
20. Godoy, J., S. Rynearson, X. Chen, M. Pumphrey. 2018. Genome-wide association mapping of loci for resistance to stripe rust in North American elite spring wheat germplasm. *Phytopathology.* 108:234-24.
21. Haixiao, D., R. Wang, Y. Yuan, J. Anderson, M.O. Pumphrey, Z. Zhang, 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* 9:911.
doi:10.3389/fpls.2018.00911

22. Haley, S.D., J.J. Johnson, F.B. Peairs, J.A. Stromberger, E.E. Hudson-Arns, S.A. Seifert, V.A. Anderson, J.B. Rudolph, G. Bai, X. Chen, R.L. Bowden, Y. Jin, J.A. Kolmer, M.-S. Chen, and B.W. Seabourn. 2018. Registration of ‘Langin’ Hard Red Winter Wheat. *J. Plant Reg.* 12:232–236d
23. Haley, S.D., J.J. Johnson, F.B. Peairs, J.A. Stromberger, E.E. Hudson-Arns, S.A. Seifert, V.A. Anderson, J.B. Rudolph, G. Bai, X. Chen, R.L. Bowden, Y. Jin, J.A. Kolmer, M.-S. Chen, and B.W. Seabourn. 2018. Registration of Avery wheat. *J. Plant Reg.* *doi:10.3198/jpr2017.11.0080crc.*
24. Hao, Q., W. Wang, X. Han, J. Wu, B. Lyu, F. Chen, A. Caplan, C. Li, J. Wu, W. Wang, Q. Xu, D. Fu. 2018. Isochorismate-based salicylic acid biosynthesis confers basal resistance to *Fusarium graminearum* in barley. *Molecular Plant Pathology*: 19: 1995–2010.
25. Hegarty, J.M., I.A. del Blanco, L. Gallagher, J. Dubcovsky. 2018. Registration of ‘UC Tahoe’, a California adapted two-rowed spring barley for craft-scale malting. *Journal of Plant Registration* 12:163–167.
26. Heo, H.-Y., N. K. Blake, S. P. Lanning, P. F. Lamb, D. Nash, D. M. Wichman, K. D. Kephart, R. N. Stougaard, J. H. Miller, G. V. P. Reddy, J. L. Eckhoff, C. Chen, F. Menalled, E. Davis, and L. E. Talbert. 2018. Registration of NS Presser CLP wheat. *J. Plant Reg*12:70-73.
27. Huang, M., N. Mheni, G. Brown-Guedira, A. McKendry, C. Griffey, D. Van Sanford, J. Costa, C Sneller. 2018. Genetic analysis of heading date in winter and spring wheat. *Euphytica*, 214: 128.
28. Jordan, K.J., S.Wang, F. He, S. Chao, Y. Lun, E. Paux, P. Sourdille, J. Sherman, A. Akhunova, N. K. Blake, M.O. Pumphrey, K. Glover, J. Dubcovsky, L. Talbert, E. Akhunov. 2018. The genetic architecture of genome-wide recombination rate variation in allopolyploid wheat revealed by nested association mapping *Plant J.* 95: 1039–1054.
29. Kippes, N., M. Guedira, L. Lin, G.L. Brown-Guedira and J. Dubcovsky. 2018. Single nucleotide polymorphisms in a regulatory site of *VRN-A1* first intron are associated with differences in vernalization requirement in winter wheat. *Molecular Genetics and Genomics*, 293:1231-1243.
30. Kidwell, K.K, J. S. Kuehner, G.B. Shelton, V.L. DeMacon, S. Rynearson, X.M. Chen, S. O. Guy, J.M. Marshall, D.A. Engle, C.F. Morris, and M.O. Pumphrey. 2018. Registration of 'Dayn' Hard White Spring Wheat. *J. Plant Registrations* 12:222-227.
31. Lei, L, G. Li, H. Zhang, C. Powers, T. Fang, Y. Chen, X. Zhu, B. Carver, L. Yan*. 2018. Nitrogen use efficiency was regulated by interacting proteins relevant to development in wheat. *Plant Biotechnol J.* 16: 1214-1226.
32. Liu M, L. Lei, F. Miao, C. Powers, X. Zhang, J. Deng, M. Tadege, B.F. Carver, L. Yan. 2018. The *STENOFOLIA* gene from *Medicago* alters leaf width, flowering time and chlorophyll content in transgenic wheat. *Plant Biotechnol J.* 16:186-196.

33. Liu W., Y. Naruoka, K. Miller, K. Garland-Campbell, A.H. Carter. 2018. Characterizing and validating stripe rust resistance loci in US Pacific Northwest winter wheat accessions (*Triticum aestivum* L.) by genome-wide association and linkage mapping. *The Plant Genome* 11:170087.
34. 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* 8: 60 *doi:10.3390/agronomy8050060*.
35. Lozada, D.N., Mason, R.E., Sukumaran, S., Dreisigacker, S. 2018 Validation of grain yield QTL from soft winter wheat using a CIMMYT spring wheat panel. *Crop Science*. *doi:10.2135/cropsci2018.04.0232*
36. Mason, R.E., J.W. Johnson, M. Mergoum, R.G. Miller, D.E. Moon, J. Carlin, S.A. Harrison, M.A. Babar, P. Murphy, A.M.H. Ibrahim, R. Sutton, and A.R. Blount. 2018. AR11LE24 is a soft red winter wheat adapted to the mid-south region of the United States. *Journal of Plant Registrations* 12. 357-361
37. Mo, J., T. Howell, H. Vasquez-Gross, L.A. de Haro, J. Dubcovsky, S. Pearce. 2018. Mapping causal mutations by exome sequencing in a wheat TILLING population: a tall mutant case study. *Mol. Genet. Genom.* 293: 463-477.
38. Mo, Y., L.S. Vanzetti, I. Hale3, E.J. Spagnolo, F. Guidobaldi, J. Al-Oboudi, N. Odle, S. Pearce, M. Helguera, J. Dubcovsky. 2018. Identification and characterization of Rht25, a locus on chromosome arm 6AS affecting wheat plant height, heading time, and spike development. *Theor Appl Genet* *doi: 10.1007/s00122-018-3130-6*
39. Qureshi, N., H. Bariana, P. Zhang, R. McIntosh, D. Wong, M. Shankar, M.J. Hayden, J. Dubcovsky, and U. Bansal. 2018. Genetic relationship of stripe rust resistance genes *Yr34* and *Yr48* in wheat and identification of linked KASP markers. *Plant Disease*.102: 413-420.
40. Shao M., G. Bai, T.W. Rife, J. Poland, M. Lin, S. Liu, H. Chen, T. Kumssa, A. Fritz, H. Trick, Y. Li, and G. Zhang. 2018. QTL mapping of pre-harvest sprouting resistance in a white wheat cultivar Danby. *Theor. Appl. Genet.* 131: 1683-1697.
41. Sherman, J. D., A. C. Varella, S. P. Lanning, J. M. Martin, H. -Y. Heo, D. Nash, N. K. Blake, J. P. Cook, L. E. Talbert. 2018. Effect of a gene for high dough strength on whole wheat baking parameters of hard white spring wheat. *Cereal Chem.* 95:411-417.
42. Su, Z., S. Jin, D. Zhang, G. Bai. 2018. Development and validation of diagnostic markers *Fhb1* region, a major QTL for fusarium head blight resistance in wheat. *Theor. Appl. Genet.* *doi.org/10.1007/s00122-018-3159-6*.
43. Xue S., J. Kolmer, S. Wang, L. Yan. 2018. Mapping of leaf rust resistance genes and molecular characterization of the 2NS/2AS translocation in the wheat cultivar Jagger. *G3* 8: 2059-2065.
44. Yuan, C., J. Wu, B. Yan, Q. Hao, C. Zhang, B. Lyu, F. Ni, A. Caplan, J. Wu, D. Fu. 2018. Remapping of the stripe rust resistance gene *Yr10* in common wheat. *Theor. Appl. Genet.* 131: 1253–1262.

45. Zhang G., Z. Hua. 2018. Genome comparison implies the role of *Wsm2* in membrane trafficking and protein degradation. PeerJ. DOI 10.7717/peerj.4678.
46. Zhang, J., S.A. Gizaw, E. Bossolini, J. Hegarty, T. Howell, A.H. Carter, E. Akhunov, J. Dubcovsky. 2018. Identification and validation of QTL for grain yield and plant water status under contrasting water treatments in fall-sown spring wheats. Theor. Appl. Genet. 131: 1741–1759.

2019 Publications

(51 publications)

1. Alipour, H., G. Bai, G. Zhang, M.R. Bihamta, V. Mohammadi, S.A. Peyghambari. 2019. Imputation accuracy of wheat GBS data using barley and wheat genome references. PLoS One PLoS ONE 14: e0208614.
2. Anderson, J.A., J.J. Wiersma, S.K. Reynolds, G.L. Linkert, R. Caspers, J.A. Kolmer, Y. Jin, M.N. Rouse, R. Dill-Macky, M.J. Smith, L. Dykes, and J.-B. Ohm. 2019. Registration of 'Shelly' hard red spring wheat. J. Plant Registrations, 13:199–206.
3. Blake, N. K., M. Pumphrey, K. Glover, S. Chao, K. Jordan, J.-L. Jannick, E. A. Akhunov, J. Dubcovsky, H. Bockelman, L. E. Talbert. 2019. Registration of the Triticeae-CAP Spring Wheat Nested Association Mapping Population. J. Plant Reg. 13:294-297.
4. Cai, J., S. Wang, Z. Su, T. Li, X. Zhang, G. Bai. 2019. Meta-analysis of QTL for Fusarium head blight resistance in Chinese wheat landraces. The Crop Journal, 7:784-798.
5. Cobo, N., L. Pflüger, X. Chen, J. Dubcovsky. 2018. Mapping QTL for resistance to new virulent races of wheat stripe rust from two Argentinean wheat varieties. Crop Sci. 58: 2470-2483.
6. Cobo, N., H. Wanjugi, E. Lagudah, J. Dubcovsky. 2019. High-resolution map of wheat *QYr.ucw-IBL*, an adult-plant stripe rust resistance locus in the same chromosomal region as *Yr29*. The Plant Genome. 12:180055.
7. Cook, J. P., D. K. Weaver, A. C. Varella, J. D. Sherman, M. L. Hofland, H.-Y. Heo, C. Caron, P. F. Lamb, N. K. Blake, L. E. Talbert. 2019. Comparison of three alleles at a major solid stem QTL for wheat stem sawfly resistance and agronomic performance in hexaploid wheat. Crop Sci. 59:1639–1647.
8. Dhakal, S., C.-T. Tan, V. Anderson, H. Yu, M.P. Fuentealba, J.C. Rudd, S.D. Haley, Q. Xue, A.M.H. Ibrahim, L. Garza, R. Devkota, S.-Y. Liu. 2018. Mapping and KASP marker development for wheat curl mite resistance in 'TAM 112' wheat using linkage and association analysis. Mol. Breeding. 38: 119.
9. Djanaguiraman, M., P.V.V. Prasad, J. Kumari, S.K. Sehgal, B. Friebe, I. Djalovic, Y. Chen, K.H.M. Siddique, B.S. Gill. 2019. Alien chromosome segment from *Aegilops speltoides* and *Dasypyrum villosum* increases drought tolerance in wheat via profuse and deep root system. BMC Plant Biology, 19:242.

10. Gaire, R, M. Huang, C. Sneller, C. Griffey, G. Brown-Guedira, M. Mohammadi. 2019. Association analysis of baking and milling quality traits in elite soft red winter wheat population. *Crop Sci.* 59:1085-1094.
11. Gao, L., E.M. Babiker, I.C. Nava, J. Nirmala, Z. Bedo, L. Lang, S. Chao, S. Gale, Y. Jin, J.A. Anderson, U. Bansal, R.F. Park, M.N. Rouse, J.M. Bonman, and H. Bariana. 2018. Temperature-sensitive wheat stem rust resistance gene *Sr15* is effective against *Puccinia graminis* f. sp. *tritici* race TTKSK. *Plant Pathol.* 68:143–151.
12. Gill H.S., C. Li, J.S. Sidhu, W. Liu, D. Wilson, G. Bai, G.S. Gill, S.K. Sehgal. 2019. Fine mapping of the wheat leaf rust resistance gene *Lr42*. *Int. J. Mol. Sci.* 20: 2445
13. Gizaw S.A., J.G. Godoy, M.O. Pumphrey, and A.H. Carter. 2018. Spectral reflectance for indirect selection and genome-wide association analysis of grain yield and drought tolerance in North American spring wheat (*Triticum aestivum* L.). *Crop Sci.* 58: 2289-2301.
14. Gizaw, S.A., J. Godoy, K. Garland-Campbell, and A.H. Carter. 2018. Genome-wide association study of yield and component traits in Pacific Northwest winter wheat (*Triticum aestivum* L.). *Crop Sci.* 58: 2315-2330.
15. Godoy, J., S. Gizaw, S. Chao, N. Blake, A. Carter, R. Cuthbert, **J. Dubcovsky**, P. Hucl, K. Kephart, C. Pozniak, P.V. V. Prasad, M. Pumphrey, and L. Talbert. 2018. Genome-wide association study of agronomic traits in a spring-planted North American elite hard red spring wheat panel. *Crop Science* 58:1838-1852
16. Hayat, H., Mason, R.E., Lozada, D.N., Acuna, A., Holder, A., Larkin, D.L., Winn, Z., Murry, J., Murphy, P., Moon, D.E., Miller, R.G. 2019. Effects of allelic variation at *Rht-B1* and *Rht-D1* on grain yield and agronomic traits of southern US soft red winter wheat. *Euphytica.* 215:172.
17. He F., R. Pasam, F. Shi, S. Kant, G. Keeble-Gagnere, P. Kay, K. Forrest, A. Fritz, P. Hucl, K. Wiebe, R. Knox, R. Cuthbert, C. Pozniak, A. Akhunova, P.L. Morrell, J.P. Davies, S.R. Webb, G. Spangenberg, B. Hayes, H. Daetwyler, J. Tibbits, M. Hayden, E. Akhunov. 2019. Exome sequencing highlights the role of wild relative introgression in shaping the adaptive landscape of the wheat genome. *Nat Genet.* 51:896–904.
18. Howell T, J.I. Moriconi, X. Zhao, T. Fahima, G. E. Santa-Maria, and J. Dubcovsky. 2019. A wheat/rye polymorphism affects seminal root length and is associated with drought and waterlogging tolerance. *J Exp. Bot.* 70:4027-4037.
19. Huang M., B. Ward, C. Griffey, D. Van Sanford, A. McKendry, G. Brown-Guedira, P. Tyagi, C Sneller. 2018. The accuracy of genomic prediction between environments and populations for soft wheat traits. *Crop Sci.* 58: 2274-2288.
20. Jernigan K.L., J. Godoy, M. Huang, Y. Zhou, C.F. Morris, K. A. Garland-Campbell, Z. Zhang, A.H. Carter 2018. Association mapping for end-use quality in Pacific Northwest adapted soft white winter wheat. *Front. Pl. Sci.* 9:271.
21. Kandel, J.S., M. Huang, Z. Zhang, D.Z. Skinner, D.R. See. 2018. Genetic diversity of clinal freezing tolerance variation in winter wheat landraces. *Agronomy* 8, 95

22. Krause, M.R., L. González-Pérez, J. Crossa, P. Pérez-Rodríguez, O. Montesinos-López, R.P. Singh, S. Dreisigacker, J. Poland, J. Rutkoski, M.E. Sorrells, M.A. Gore, and S. Mondal. 2019. Hyperspectral reflectance-derived relationship matrices for genomic prediction of grain yield in wheat. *Genes Genomes Genetics*. 9:1231-1247.
23. Kuzay, S., Y. Xu, J. Zhang, A. Katz, S. Pearce, Z. Su, M. Fraser, J. A. Anderson, G. Brown-Guedira, N. DeWitt, A. Peters Haugrud, J.D. Faris, E. Akhunov, G. Bai, J. Dubcovsky. 2019. Identification of a candidate gene for a QTL for spikelet number per spike on wheat chromosome arm 7AL by high-resolution genetic mapping. *Theor. Appl. Genet.* 132:2689-2705.
24. Larkin, D.L., D.N. Lozada, and R.E Mason. 2019. Genomic selection – considerations for successful implementation in wheat breeding programs. *Agronomy*, 9:479.
25. Li, C., H. Lin, A. Chen, M. Lau, J. Jernstedt, and J. Dubcovsky. 2019. Wheat *VRN1*, *FUL2* and *FUL3* play critical and redundant roles in spikelet meristem identity and spike determinacy. *Development*. 146:dev175398
26. Lin, M., S. Liu, G. Zhang, and G. Bai. 2018. Effects of *TaPHS1* and *TaMKK3-A* genes on wheat pre-harvest sprouting resistance. *Agronomy* 8, 210.
27. Liu, W., J. Kolmer, S. Ryneerson, X. Chen, L. Gao, J.A. Anderson, M.K. Turner, M. Pumphrey. 2019. Identifying loci conferring resistance to leaf and stripe rusts in a spring wheat population (*Triticum aestivum* L.) via genome-wide association mapping. *Phytopathology*. 109:1932-194.
28. Lozada, D.L., R.E. Mason, J.M. Sarinelli, and G. Brown-Guedira. 2019 Accuracy of genomic selection for grain yield and agronomic traits in soft red winter wheat. *BMC Genetics*. 20:82.
29. Maulana F., K-S. Kim, J.D. Anderson, M.E. Sorrells, T. J. Butler, S. Liu, P. S. Baenziger, P.F. Byrne, and X-F. Ma. 2019. Genomic selection of forage quality traits in winter wheat. *Crop Sci.* 59:2473-2483
30. Muleta, K.T., X. Chen and M. Pumphrey. 2019. Genome-wide mapping of resistance to stripe rust caused by *Puccinia striiformis* f. sp. *tritici* in hexaploid winter wheat. *Crop Science*. 60:115-131.
31. Nyine, M., S. Wang, K. Kiani, K. Jordan, S.Y. Liu, P. Byrne, S. Haley, S. Baenziger, S. Chao, R. Bowden, E. Akhunov. 2018. Genotype imputation in winter wheat using first-generation haplotype map SNPs improves genome-wide association mapping and genomic predictions of traits. *G3*.9:125-133.
32. Ramakrishnan S.M., J.S. Sidhu, S. Ali, N. Kaur, J. Wu, and S.K. Sehgal. 2019. Molecular characterization of bacterial leaf streak resistance in hard winter wheat. *PeerJ* 7:e7276
33. Rudd, J. C., R.N. Devkota, A.M.H. Ibrahim, J. A. Baker, S. Baker, R. Sutton, B. Simoneaux, G. Opeña, L.W. Rooney, J.M. Awika, S.-Y. Liu, Q. Xue, B. Bean, C.B. Neely, R.W. Duncan, Y. Jin, B.W. Seabourn, R.L. Bowden, Y. Jin, M.-S. Chen, and R.A. Graybosch. 2019. ‘TAM 204’ wheat, adapted to grazing, grain, and graze-out production systems in the southern High Plains. *J. Plant Reg.* 13:377-382.

34. Santantonio, N., J.L. Jannink, and M.E. Sorrells. 2019. Homeologous epistasis in wheat: the search for an immortal hybrid. *Genetics*. 211:1105-1122.
35. Santantonio, N., J.L. Jannink and M.E. Sorrells. 2019. Prediction of subgenome additive and interaction effects in allohexaploid wheat. *G3: Genes, Genomes, Genetics*. 9:685-698.
36. Santantonio, N., J.L. Jannink and M.E. Sorrells. 2019. A low resolution epistasis mapping approach to identify chromosome arm interactions in allohexaploid wheat. *G3: Genes, Genomes, Genetics*. 9:675-684..
37. Sarinelli, J.M., J.P. Murphy, P. Tyagi, J.B. Holland, J.W. Johnson, M. Mergoum, R.E. Mason, A. Babar, S. Harrison, R. Sutton, C.A. Griffey, and G. Brown-Guedira. 2019. Training population selection and use of fixed effects to optimize genomic predictions in a historical USA winter wheat panel. *Theor. Appl. Genet.* 132: 1247–1261.
38. Shao, M., G. Bai, T. W. Rife, J. Poland, M. Lin, S. Liu, H. Chen, T. Kumssa, A. Fritz, H. Trick, Y. Li, and G. Zhang. 2018. QTL mapping of pre-harvest sprouting resistance in a white wheat cultivar Danby *Theor. Appl. Genet.* 131:1683–1697.
39. Sidhu, J.S., S.M. Ramakrishnan, S. Ali, A. Bernardo, G. Bai, S. Abdullah G. Ayana, and S.K. Sehgal. 2019. Assessing the genetic diversity and characterizing genomic regions conferring tan spot resistance in rye. *PLoS One* 14: e0214519
40. Su, Z., A. Bernardo, B. Tian, H. Chen, S. Wang, H. Ma, S. Cai, D. Liu, D. Zhang, T. Li, H. Trick, P.St. Amand, J. Yu, Z. Zhang, and G. Bai. 2019. A deletion mutation in *TaHRC* confers *Fhb1* resistance to Fusarium Head Blight in wheat. *Nat. Genet.* 51: 1099-1105.
41. Sun J., J.A. Poland, S. Mondal, J. Crossa, P. Juliana, R.P. Singh, J.E. Rutkoski, J-L. Jannink, L. Crespo-Herrera, G. Velu, J. Huerta-Espino, M.E. Sorrells. 2019. High-throughput phenotyping platforms enhance genomic selection for wheat grain yield across populations and cycles in early stage. *Theor Appl Genet.* 132:1705-1720.
42. Shaw, L. B. Lyu, R. Turner, C. Li, F. Chen, X. Han, D. Fu, and J. Dubcovsky. 2019. *FLOWERING LOCUS T2 (FT2)* regulates spike development and fertility in temperate cereals. *J. of Exp. Bot.* 70: 193-204.
43. Varella, A. C., H. Zhang, D. K. Weaver, J. P. Cook, M. L. Hofland, P. Lamb, S. Chao, J. M. Martin, N. K. Blake, L. E. Talbert. 2019. A novel QTL in durum wheat for resistance to the wheat stem sawfly associated with early expression of stem solidness. *G3: Genes, Genomes and Genetics* 9:1999-2006.
44. Varella, A. C., D. K. Weaver, N. K. Blake, M. L. Hofland, H.-Y. Heo, J. P. Cook, P. F. Lamb, K. W. Jordan, E. Akhunov, S. Chao, and L. E. Talbert. 2019. Analysis of recombinant inbred line populations derived from wheat landraces to identify new genes for wheat stem sawfly resistance. *Theor. Appl. Genet.* 132: 2195–2207.
45. 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 spring wheat cultivars. *Mol. Bred.* 38:135.

46. 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.* 132:2755-2766.
47. Wang W., Q. Pan, B. Tian, F. He, Y. Chen, G. Bai, A. Akhunova, H.N. Trick, E. Akhunov. 2019. Gene editing of the wheat homologs of *TONNEAU1*—recruiting motif encoding gene affects grain shape and weight in wheat. *Plant J.* 100:251-264.
48. Ward, B.P., G.L. Brown-Guedira, F.L. Kolb, D.A. Van Sanford, P. Tyagi, C.H. Sneller and C.A. Griffey. 2019. Genome-wide association studies for yield-related traits in soft red winter wheat grown in Virginia. *PLoS ONE*, 14, p.e0208217.
49. Ward, B.P., G.L. Brown-Guedira, P. Tyagi, F.L. Kolb, D.A. Van Sanford, C.H. Sneller and C.A. Griffey 2019. Multi-environment and multi-trait genomic selection models in unbalanced early-generation wheat yield trials. *Crop Science.* 59:491-507.
50. Yang, Y., B.R. Basnet, A.M.H. Ibrahim, J.C. Rudd, X. Chen, R.L. Bowden, Q. Xue, R.D. Devkota, S. Wang, C.D. Johnson, R. Metz, R.E. Mason, D.B. Hays and S-Y. Liu. 2019. Developing KASP markers on a major stripe rust resistance QTL in a popular wheat TAM 111 using 90K array and genotyping-by-sequencing SNPs. *Crop Sci.* 59:165-175.
51. Zhao, J., N.R. Mohamed, L. Khalaf, W. Chuang, L. Zhao, C.M. Smith, B. Carver, G. Bai. 2019. Development of single nucleotide polymorphism markers for the wheat curl mite resistance gene *Cmc4*. *Crop Sci.* 59: 1567-1575.

2020 Publications

(35 publications)

1. Bajgain P., Y. Jin, T.J. Tsilo, G.K. Macharia, S.E. Reynolds, R. Wanyera, and J.A. Anderson. 2020. Registration of KUWNSr, a wheat stem rust nested association mapping population. *J Plant Regist.* <https://doi.org/10.1002/plr2.20043>.
2. Bernardo, A., P.St. Amand, H.Q. Le, Z. Su, and G. Bai. 2020. Multiplex restriction amplicon sequencing: a novel next-generation sequencing-based marker platform for high-throughput genotyping. *Plant Biotechnol. J.*, 18:254-265.
3. Bolus, S., E. Akhunov, G. Coaker and J. Dubcovsky. 2019. Dissection of cell death induction by wheat stem rust resistance protein Sr35 and its matching effector AvrSr35. *Mol. Plant Microbe Int.* 33: 308–319
4. 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*, 1– 8. <https://doi.org/10.1002/plr2.20029>.
5. Chen, S., M. N. Rouse, W. Zhang, X. Zhang, Y. Guo, J. Briggs, J. Dubcovsky. 2020. Wheat gene *Sr60* encodes a protein with two putative kinase domains that confers resistance to stem rust. *New Phytologists.* 225:948-959.
6. Cook, J.P., R. K. Acharya, J. M. Martin, N. K. Blake, I. J. Khan, H.-Y. Heo, K. D. Kephart, J. Eckhoff, L.E. Talbert, and J. D. Sherman. 2020. Genetic analysis of stay-

- green, yield and agronomic traits in spring wheat (*Triticum aestivum* L.). *Crop Science*. (Accepted).
7. Debernardi, J.M., J.R. Greenwood, E.J. Finnegan, J. Jernstedt, J. Dubcovsky. 2019. Wheat *APETALA2*-like genes *AP2L2* and *AP2L5* control the initiation of axillary floral meristems and specify glume-lemma identity. *The Plant Journal*. 101:171-187
 8. Debernardi JM, Tricoli DM, Ercoli MF, Hayta S, Ronald P, Palatnik JF, Dubcovsky J (2020) A chimera including a GROWTH-REGULATING FACTOR (GRF) and its cofactor GRF-INTERACTING FACTOR (GIF) increases transgenic plant regeneration efficiency. *Nature Biotechnology* In press (bioRxiv = <https://biorxiv.org/cgi/content/short/2020.08.23.263905v1>)
 9. DeWitt, N., M. Guedira, E. Lauer, M. Sarinelli, P. Tyagi, D. Fu, Q. Hao, J.P. Murphy, D. Marshall, A. Akhunova, K. Jordan, E. Akhunov, and G. Brown-Guedira. 2020. Sequence based mapping identifies *AWNS1*, a candidate transcription repressor underlying awn suppression at the *B1* locus in wheat. *New Phytologist*, 225:326-339.
 10. Fang, T., L. Lei, G. Li, C. Powers, P.M. Hunger, B.F. Carver, and L. Yan. 2020. Development and deployment of KASP markers for multiple alleles of *Lr34* in wheat *Theor. Appl. Genet.* 133:2183-2195.
 11. Guttieri, M.J., R.L. Bowden, K. Reinhart, D. Marshall, Y. Jin, B. Seabourn. 2020. Registration of hard white winter wheat germplasms with adult plant resistance to stem rust, KS14U6380R5, KS16U6380R10, and KS16U6380R11. *J. Plant Registrations*. 14:210-217.
 12. Halder J., J. Zhang, S. Ali, H.S. Gill, J.S. Sidhu, S. Talukdar, J. Kleinjan, B. Turnipseed, S.K. Sehgal. 2019. Mining and genomic characterization of resistance against to Tan spot, *Stagonospora nodorum* blotch (SNB), and Fusarium head blight in Watkins core collection of wheat. *BMC Plant Biology*. 19:480
 13. Jones, B.H., N.K. Blake, H.-Y. Heo, J.R. Kalous, J.M. Martin, J.A. Torrión and L.E. Talbert. 2020. Improving hexaploid spring wheat by introgression of alleles for yield component traits from durum wheat. *Crop Science* 60: 759-771. doi:10.1002/csc2.20011.
 14. Jordan KW, He F, DeSoto MF, Akhunova A, Akhunov E. 2020. Differential chromatin accessibility landscape reveals structural and functional features of the allopolyploid wheat chromosomes. *Genome Biol.* 21:176.
 15. Kan, C-C, H., Jia, C, Powers, B.F. Carver, and L. Yan. 2020. Genetic characterization and deployment of a major gene for grain yield on chromosome arm 1BS in winter wheat. *Mol. Breed.* 40:26.
 16. Kippes, N., C. van Gessel, J. Hamilton, A. Akpınar, H. Budak, J. Dubcovsky and S. Pearce. 2020. Effect of *phyB* and *phyC* loss-of-function mutations on wheat transcriptome under short and long day photoperiods. *BMC Plant Biology*. 20: 297.
 17. Klymiuk, V., A. Fatiukha, D. Raats, V. Bocharova, L. Huang, L. Feng, S. Jaiwar, C. Pozniak, G. Coaker, J. Dubcovsky, T. Fahima. 2020. Three previously characterized resistances to yellow rust are encoded by a single locus *Wtk1*. *Journal of Experimental Botany*. 71: 2561-2572.

18. Larkin, D. L., A.L. Holder, R.E. Mason, D.A. Moon, G. Brown-Guedira, P.P. Price, S.A. Harrison, and Y. Dong. (2020). Genome-wide analysis and prediction of fusarium head blight resistance in soft red winter wheat. *Crop Science*. doi:10.1002/csc2.20273.
19. Liu, G., X. Liu, Y. Xu, A. Bernardo, M. Chen, Y. Li, F. Niu, L. Zhao and G. Bai. 2020. Reassigning Hessian fly resistance genes *H7* and *H8* to chromosomes 6A and 2B of the wheat cultivar ‘Seneca’ using genotyping-by-sequencing. *Crop Sci*. 60:1488–1498
20. Liu S., G. Bai, M. Lin, M. Luo, D. Zhang, F. Jin, B. Tian, H.N. Trick, L. Yan. 2020. Identification of candidate chromosome region of *Sbwm1* for Soil-borne wheat mosaic virus resistance in wheat. *Sci Rep-UK* 10:8119.
21. Maulana F., K-S. Kim, J.D. Anderson, M.E. Sorrells, T. J. Butler, **S.-Y. Liu**, P. S. Baenziger, P.F. Byrne, and X-F. Ma. 2020. Genomic selection of forage agronomic traits in winter wheat. *Crop Sci*. <https://doi.org/10.1002/csc2.20304>.
22. Muleta, K.T., X. Chen and M. Pumphrey. 2020. Genome-wide mapping of resistance to stripe rust caused by *Puccinia striiformis* f. sp. *tritici* in hexaploid winter wheat. *Crop Science*. DOI:10.1002/csc2.20058.
23. Niu, F., Y. Xu, X. Liu, L. Zhao, A. Bernardo, Y. Li, G. Liu, M. Chen, L. Cao, Z. Hu, X. Xu, and G. Bai. 2020. The Hessian fly recessive resistance gene *h4* mapped to chromosome 1A of the wheat cultivar ‘Java’ using genotyping-by-sequencing. *Theor. Appl. Genet*. <https://doi.org/10.1007/s00122-020-03642-9>.
24. Nyine M, Adhikari E, Clinesmith M, Jordan KW, Fritz AK, Akhunov E. Genomic Patterns of introgression in interspecific populations created by crossing wheat with its wild relative. *G3 (Bethesda)*. 2020 doi: 10.1534/g3.120.401479
25. Shaw, L. M., C. Li, D. P. Woods1, M. A. Alvarez, H. Lin, M. Y. Lau, A. Chen, and J. Dubcovsky. 2020. Epistatic interactions between *PHOTOPERIOD1*, *CONSTANS1* and *CONSTANS2* modulate the photoperiodic response in wheat. *PLoS Genetics*. 16: e1008812.
26. Sidhu J.S., D. Singh, H.S. Gill, N.K. Brar, Y. Qiu, J. Halder, R. Al Tameemi, B. Turnipseed and S.K. Sehgal. 2020. Genome-wide association study uncovers novel genomic regions associated with coleoptile length in hard winter wheat. *Frontiers in Genetics*. 10:1345.
27. Strauss, N. M., A. Wiersma, P. DeMacon, E. Klarquist, A. Carter, K.A. Garland Campbell, E. Olson. 2020. Registration of the wheat D-Genome nested association mapping population. *Journal of Plant Registrations*. Accepted
28. Taagen E., A.J. Bogdanove, and M.E. Sorrells. 2020. Counting on crossovers: Controlled recombination for plant breeding. *Trends in Plant Science*. 25:455-465.
29. Taagen, E., A.J. Bogdanove, M.E. Sorrells. 2020. Achieving controlled recombination with targeted cleavage and epigenetic modifiers. *Trends in Plant Science*. 25:513-514. <https://doi.org/10.1016/j.tplants.2019.12.018>
30. Veenstra, L.D., J. Poland, Jannink, and M.E. Sorrells. 2020. Recurrent genomic selection for wheat grain fructans. *Crop Science* 60:1499-1512. DOI: 10.1002/csc2.20130.

31. Veenstra, L.D., N. Santantonio, J.L. Jannink, and M.E. Sorrells. 2019. Influence of genotype and environment on wheat grain fructan content. *Crop Sciences*. 59:190-198. DOI: 10.2135/cropsci2018.06.0363.
32. Wang, S., Q. Li, J. Wang, Y. Yan, G. Zhang, Y. Yan, H. Zhang, J. Wu, F. Chen, X. Wang, Z. Kang, J. Dubcovsky, and J.-Y. Gou. 2019. *YR36/WKS1*-mediated phosphorylation of PsbO, an extrinsic member of Photosystem II, inhibits photosynthesis and confers stripe rust resistance in wheat. *Molecular Plant* 12:1639-1650.
33. Zhao, L., N.R. Abdelsalam, Y. Xu, M.S. Chen, Y. Feng, L. Kong, and G. Bai, G. 2020. Identification of two novel Hessian fly resistance genes *H35* and *H36* in a hard winter wheat line SD06165. *Theor. Appl. Genet.* 133:2343-2353.
34. Zhang, P., C. Guo, Z. Liu, A. Bernardo, H. Ma, P. Jiang, G. Song and G. Bai. 2020. Quantitative trait loci for Fusarium head blight resistance in wheat cultivars Yangmai 158 and Zhengmai 9023, *Crop J.* <https://doi.org/10.1016/j.cj.2020.05.007>
35. Zhang, Y., A. Schonhofen, W. Zhang, J. Hegarty, C. Carter, T. Vang , D. Laudencia-Chinguanco and J. Dubcovsky, Contributions of individual and combined *Glu-B1x* and *Glu-B1y* high-molecular-weight glutenin subunits to semolina functionality and pasta quality. *Journal of Cereal Science* 93: 102943.

Cross-citations of WheatCAP and previous TriticeaeCAP publications in Google Scholar
 WheatCAP 2,153 citations (9/3/2020) TCAP 17,073 citations (9/3/2020)

