



2016-2022

IWYP RELATED RESEARCH Publications

IWYP RELATED RESEARCH PUBLICATIONS (2016-22)

PROJECT PI	TITLE	YEAR
Andrew Merchant	Salter, W. T., M. E. Gilbert, and T. N. Buckley. 2018. Time-Dependent Bias in Instantaneous Ceptomety Caused by Row Orientation. <i>Plant Phenome J.</i> 1:180004. doi:10.2135/tppj2018.07.0004	2018
Andrew Merchant	William T. Salter, Matthew E. Gilbert and Thomas N. Buckley (2018). A multiplexed gas exchange system for increased throughput of photosynthetic capacity measurements. <i>Plant Methods</i> 2018 14:80 https://doi.org/10.1186/s13007-018-0347-y	2018
Andrew Merchant	Salter W. T, Merchant A, Buckley T. N., (2018) PARbars: cheap, easy to build ceptometers for continuous measurement of light interception in plant canopies. <i>Journal of Visualized Experiments</i>	2019
Andrew Merchant	Salter W. T, Merchant A, Richards, RA Trethowan R, Buckley T. N. (2019) Rate of photosynthetic acclimation to fluctuating light varies widely among genotypes of wheat. <i>Journal of Experimental Botany</i>	2019
Andrew Merchant	William T Salter, Andrew Merchant, Richard M Trethowan, Richard A Richards, Thomas N Buckley, Wide variation in the suboptimal distribution of photosynthetic capacity in relation to light across genotypes of wheat, <i>AoB PLANTS</i> , Volume 12, Issue 5, October 2020, plaa039, https://doi.org/10.1093/aobpla/plaa039	2020
Anthony Hall	Gardiner LJ, Joynson R, Omony J, et al. Hidden variation in polyploid wheat drives local adaptation. <i>Genome Res.</i> 2018;28(9):1319-1332.	2018
Anthony Hall	Evans JR and Clarke VC. (2019) The nitrogen cost of photosynthesis. <i>J Experimental Botany</i> 70, 7-15	2019
Anthony Hall	Gardiner LJ, Wingen LU, Bailey P, et al. Analysis of the recombination landscape of hexaploid bread wheat reveals genes controlling recombination and gene conversion frequency. <i>Genome Biol.</i> 2019;20(1):69. Published 2019 Apr 15. doi:10.1186/s13059-019-1675-6	2019
Anthony Hall	Gardiner, L.-J., Brabbs, T., Akhunov, A., Jordan, K., Budak, H., Richmond, T., Singh, S., Catchpole, L., Akhunov, E., Hall, A. (2019). Integrating genomic resources to present full gene and putative promoter capture probe sets for bread wheat. <i>GigaScience</i> . doi.org/10.1093/gigascience/giz018	2019

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Anthony Hall	Joynson R, Molero G, Coombes B, Gardiner LJ, Rivera-Amado C, Piñera-Chávez FJ, Evans JR, Furbank RT, Reynolds MP, Hall A. Uncovering candidate genes involved in photosynthetic capacity using unexplored genetic variation in Spring Wheat. <i>Plant Biotechnol J.</i> 2021 Feb 27. doi: 10.1111/pbi.13568. Epub ahead of print. PMID: 33638599.	2021
Anthony Hall	Sales CRG, Molero G, Evans JR, et al. Phenotypic variation in photosynthetic traits in wheat grown under field versus glasshouse conditions. <i>J Exp Bot.</i> 2022;73(10):3221-3237. doi:10.1093/jxb/erac096	2022
Arnold Bloom	Bloom, A. J. and Kameritsch, P. (2017), Relative association of Rubisco with manganese and magnesium as a regulatory mechanism in plants. <i>Physiol Plantarum</i> , 161: 545-559. doi:10.1111/ppl.12616	2017
Arnold Bloom	Bloom, A. J. and K. M. Lancaster (2018) Manganese binding to Rubisco could drive a photorespiratory pathway that increases the energy efficiency of photosynthesis. <i>Nature Plants</i> 4:414-422, DOI:10.1038/s41477-018-0191-0	2018
Arnold Bloom	Bloom, A.J. (2019) Metal Regulation of metabolism. <i>Current Opinion in Chemical Biology.</i> Vol 49 33-38	2019
Arnold Bloom	Bloom, A.J., Kasemsap, P. and Rubio-Asensio, J.S. (2020), Rising atmospheric CO2 concentration inhibits nitrate assimilation in shoots but enhances it in roots of C3 plants. <i>Physiol Plantarum</i> , 168: 963-972. doi:10.1111/ppl.13040	2020
Arnold Bloom	Arnold J Bloom, Richard E Plant, Wheat grain yield decreased over the past 35 years, but protein content did not change, <i>Journal of Experimental Botany</i> , 2021; erab343, https://doi.org/10.1093/jxb/erab343	2021
Arnold Bloom	Shi, X.; Bloom, A. Photorespiration: The Futile Cycle? <i>Plants</i> 2021, 10, 908. https://doi.org/10.3390/plants10050908	2021
Arnold Bloom	Knapp, A., and Bloom, A. J.. 2022. Easy as piadcs: A low-cost, ultra-high-resolution data acquisition system using a Raspberry Pi. <i>Applications in Plant Sciences</i> 10(3): e11485. https://doi.org/10.1002/aps3.11485	2022
Barry Pogson	Coast, O., Shah, S., Ivakov, A., Gaju, O., Wilson, P.B., Posch, B.C., Bryant, C.J., Negrini, A.C.A., Evans, J.R., Condon, A.G., Silva-Pérez, V., Reynolds, M.P., Pogson, B.J., Millar, A.H., Furbank, R.T., and Atkin, O.K. Predicting dark respiration rates of wheat leaves from hyperspectral reflectance. <i>Plant Cell Environ.</i> 2019; 42: 2133– 2150. https://doi.org/10.1111/pce.13544	2019
Blake Meyers	Belanger S, Pokhrel S, Czymbek K, Meyers BC. (2020) Pre-meiotic, 24-nt reproductive phasiRNAs are abundant in anthers of wheat and barley but not rice and maize. <i>Plant Physiology.</i> 184:1407-1423. doi: 10.1104/pp.20.00816.	2020

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Blake Meyers	Seetharam AS, Yu Y, Bélanger S, Clark LG, Meyers BC, Kellogg EA and Hufford MB (2021) The <i>Streptochaeta</i> Genome and the Evolution of the Grasses. <i>Front. Plant Sci.</i> 12:710383. doi: 10.3389/fpls.2021.710383	2021
Christine Raines	Driever SM, Simkin AJ, Alotaibi S, Fisk SJ, Madgwick PJ, Sparks CA, Jones HD, Lawson T, Parry MAJ, Raines CA. (2017). Increased SBPase activity improves photosynthesis and grain yield in wheat grown in greenhouse conditions. <i>Phil. Trans. R. Soc. B.</i>	2017
Christine Raines	Alotaibi, S. S., Sparks, C. A., Parry, M., Simkin, A. J., & Raines, C. A. (2018). Identification of Leaf Promoters for Use in Transgenic Wheat. <i>Plants (Basel, Switzerland)</i> , 7(2), 27. doi:10.3390/plants7020027	2018
Christine Raines	Simkin AJ, Lopez-Calcagno PE, Raines CA. (2019). Feeding the world: Improving photosynthetic efficiency for sustainable crop production. <i>J Exp Bot.</i> (doi.org/10.1093/jxb/ery445).	2019
Cristobal Uauy	Simmonds J, Scott P, Brinton J, Mestre TC, Bush M, Del Blanco A, Dubcovsky J, Uauy C (2016) A splice acceptor site mutation in TaGW2-A1 increases thousand grain weight in tetraploid and hexaploid wheat through wider and longer grains <i>Theoretical and Applied Genetics</i> 129:1099–1112.	2016
Cristobal Uauy	Krasileva KV, Vasquez-Gross H, Howell T, Bailey P, Paraiso F, Clissold L, Simmonds J, Ramirez-Gonzalez RH, Wang X, Borrill P, Fosker C, Ayling S, Phillips A, Uauy C, Dubcovsky J (2017) Uncovering hidden variation in the young polyploid wheat genomes. <i>PNAS.</i> doi: 10.1073/pnas.1619268114.	2017
Cristobal Uauy	Uauy C 2017. Wheat genomics comes of age. <i>Current Opinion Plant Biology.</i> 36:142	2017
Cristobal Uauy	Uauy C, Wulff B, Dubcovsky J. 2017. Combining Traditional Mutagenesis with New High-Throughput Sequencing and Genome Editing to Reveal Hidden Variation in Polyploid Wheat. <i>Annual Review in Genetics.</i> 51: doi.org/10.1146/annurev-genet-120116-024533	2017
Cristobal Uauy	Borrill P, Ramirez-Gonzalez R et al Uauy C. 2018. The transcriptional landscape of polyploid wheat. <i>Science</i>	2018
Cristobal Uauy	Watson A, Ghosh S et al 2018. Speed breeding is a powerful tool to accelerate crop research and breeding. <i>Nature Plants</i> 4:23-29	2018
Cristobal Uauy	Brinton, J, Uauy, C (2019) A reductionist approach to dissecting grain weight and yield in wheat. <i>J Integr Plant Biol</i> 61: 337– 358	2019
Cristobal Uauy	Wang W, Simmonds K, Pan Q, Davidson D, He F, Battal A, Akhunova A, Trick HN, Uauy C, Akhunov E. 2019. Gene editing and mutagenesis reveal inter-cultivar differences and additivity in the contribution of TaGW2 homoeologues to grain size and weight in wheat. <i>Theoretical and Applied Genetics</i>	2019

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Eduard Akhunov	Wang W, Pan Q, He F, Akhunova A, Chao S, Trick HN, Akhunov E, Transgenerational CRISPR-Cas9 activity facilitates multiplex gene editing in allopolyploid wheat. <i>The CRISPR Journal</i> , 2018, 1, 65-74.	2018
Eduard Akhunov	Wang, W., Simmonds, J., Pan, Q. et al. <i>Theor Appl Genet</i> (2018) 131: 2463. https://doi.org/10.1007/s00122-018-3166-7	2018
Eduard Akhunov	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. <i>Plant J.</i> 2019, 100(2):251-264, doi: 10.1111/tpj.14440.	2019
Eduard Akhunov	Wang, W., Tian, B., Pan, Q., Chen, Y., He, F., Bai, G., Akhunova, A., Trick, H. N. and Akhunov, E. (2021) Expanding the range of editable targets in the wheat genome using the variants of the Cas12a and Cas9 nucleases. <i>Plant Biotechnol. J.</i> , https://doi.org/10.1111/pbi.13669	2021
Eduard Akhunov	He, F., Wang, W., Rutter, W.B. et al. Genomic variants affecting homoeologous gene expression dosage contribute to agronomic trait variation in allopolyploid wheat. <i>Nat Commun</i> 13, 826 (2022). https://doi.org/10.1038/s41467-022-28453-y	2022
Elizabete Carmo-Silva	Perdomo JA, Degen GE, Worrall D, Carmo-Silva E. Rubisco activation by wheat Rubisco activase isoform 2β is insensitive to inhibition by ADP. <i>The Biochemical Journal.</i> 2019 Sep;476(18):2595-2606. DOI: 10.1042/bcj20190110.	2019
Elizabete Carmo-Silva	Caruana, L., Orr, D.J. & Carmo-Silva, E. Rubisosome gene expression is balanced across the hexaploid wheat genome. <i>Photosynth Res</i> (2022). https://doi.org/10.1007/s11120-022-00897-9	2021
Elizabete Carmo-Silva	Degen GE, Orr DJ, Carmo-Silva E (2021) Heat-induced changes in the abundance of wheat Rubisco activase isoforms. <i>New Phytologist</i> 229:1298-1311.	2021
Elizabete Carmo-Silva	Perdomo JA, Buchner P, Carmo-Silva E (2021) The relative abundance of wheat Rubisco activase isoforms is post-transcriptionally regulated. <i>Photosynthesis Research</i> 148:47-56	2021
Elizabete Carmo-Silva	Cristina R G Sales, Gemma Molero, John R Evans, Samuel H Taylor, Ryan Joynson, Robert T Furbank, Anthony Hall, Elizabete Carmo-Silva, Phenotypic variation in photosynthetic traits in wheat grown under field versus glasshouse conditions, <i>Journal of Experimental Botany</i> , 2022; erac096, https://doi.org/10.1093/jxb/erac096	2022
Eric Ober	Kirschner et al. (2021) ENHANCED GRAVITROPISM 2 encodes a STERILE ALPHA MOTIVE containing protein that controls root growth angle in barley and wheat. https://doi.org/10.1101/2021.01.23.427880	2020

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Eric Ober	Makhoul M, Rambla C, Voss-Fels KP, Hickey LT, Snowdon RJ, Obermeier C (2020) Overcoming polyploidy pitfalls: a user guide for effective SNP conversion into KASP markers in wheat. <i>Theoretical and Applied Genetics</i> 133:2413-2430. https://doi.org/10.1007/s00122-020-03608-x	2020
Eric Ober	Ober, E.S., Alahmad, S., Cockram, J. et al. Wheat root systems as a breeding target for climate resilience. <i>Theor Appl Genet</i> 134, 1645–1662 (2021). https://doi.org/10.1007/s00122-021-03819-w	2021
Eric Ober	Rambla, C., Van Der Meer, S., Voss-Fels, K.P. et al. A toolkit to rapidly modify root systems through single plant selection. <i>Plant Methods</i> 18, 2 (2022). https://doi.org/10.1186/s13007-021-00834-2	2022
Eric Ober	Riccardo Fusi, Serena Rosignoli, Haoyu Lou, Giuseppe Sangiorgi, Riccardo Bovina, Jacob K. Pattem, Aditi N. Borkar, Marco Lombardi, Cristian Forestan, Sara G. Milner, Jayne L. Davis, Aneesh Lale, Gwendolyn K. Kirschner, Ranjan Swarup, Alberto Tassinari, Bipin K. Pandey, Larry M. York, Brian S. Atkinson, Craig J. Sturrock, Sacha J. Mooney, Frank Hochholding, Matthew R. Tucker, Axel Himmelbach, Nils Stein, Martin Mascher, Kerstin A. Nagel, Laura De Gara, James Simmonds, Cristobal Uauy, Roberto Tuberosa, Jonathan P. Lynch, Gleb E. Yakubov, Malcolm J. Bennett, Rahul Bhosale, Silvio Salvi. (2022). Root angle is controlled by EGT1 in cereal crops employing an antigravitropic mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , July 2022. 10.1073/pnas.2201350119	2022
Erik Murchie	Smith HL, McAusland L, Murchie EH. Don't ignore the green light: exploring diverse roles in plant processes. <i>Journal of Experimental Botany</i> . 2017 Apr;68(9):2099-2110. DOI: 10.1093/jxb/erx098.	2017
Erik Murchie	Jauregui I, Rothwell SA, Taylor SH, Parry MAJ, Carmo-Silva E, Dodd IC. 2018. Whole plant chamber to examine sensitivity of cereal gas exchange to changes in evaporative demand. <i>Plant Methods</i> 14: 97.	2018
Erik Murchie	Lawson, T. and Violet-Chabrand, S. (2019), Speedy stomata, photosynthesis and plant water use efficiency. <i>New Phytol</i> , 221: 93-98. doi:10.1111/nph.15330	2019
Erik Murchie	McAusland L., Atkinson J.A., Lawson T., Murchie E.H. (2019) High throughput procedure utilising chlorophyll fluorescence imaging to phenotype dynamic photosynthesis and photoprotection in leaves under controlled gaseous conditions. <i>Plant Methods</i> , 15, 109. Available at: https://plantmethods.biomedcentral.com/articles/10.1186/s13007-019-0485-x	2019

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Erik Murchie	Przewieslik-Allen A.M., Burridge A.J., Wilkinson P.A., Winfield M.O., Shaw D.S., McAusland L., King J., King I.P., Edwards K.J., Barker G.L.A. (2019) Developing a High-Throughput SNP-Based Marker System to Facilitate the Introgression of Traits from Aegilops Species Into Bread Wheat (<i>Triticum aestivum</i>). <i>Frontiers in Plant Science</i> , 9, 1993. Available at: https://www.frontiersin.org/article/10.3389/fpls.2018.01993/full	2019
Erik Murchie	Vialet-Chabrand S., Lawson T. (2019) Dynamic leaf energy balance: deriving stomatal conductance from thermal imaging in a dynamic environment. <i>Journal of Experimental Botany</i> , 70, 2839–2855. Available at: https://academic.oup.com/jxb/article/70/10/2839/5356941	2019
Erik Murchie	McAusland, L., Vialet-Chabrand, S., Jauregui, I., Burridge, A., Hubbart-Edwards, S., Fryer, M.J., King, I.P., King, J., Pyke, K., Edwards, K.J., Carmo-Silva, E., Lawson, T. and Murchie, E.H. (2020), Variation in key leaf photosynthetic traits across wheat wild relatives is accession dependent not species dependent. <i>New Phytol</i> , 228: 1767-1780. https://doi.org/10.1111/nph.16832	2020
Erik Murchie	Sabrina Flütsch, Yizhou Wang, Atsushi Takemiya, Silvere R. M. Vialet-Chabrand, Martina Klejchová, Arianna Nigro, Adrian Hills, Tracy Lawson, Michael R. Blatt, Diana Santelia, Guard Cell Starch Degradation Yields Glucose for Rapid Stomatal Opening in Arabidopsis, <i>The Plant Cell</i> , Volume 32, Issue 7, July 2020, Pages 2325–2344, https://doi.org/10.1105/tpc.18.00802	2020
Erik Murchie	Vialet-Chabrand S., Lawson T. (2020) Thermography methods to assess stomatal behaviour in a dynamic environment Ed J. Evans. <i>Journal of Experimental Botany</i> . Available at: https://academic.oup.com/jxb/advance-article/doi/10.1093/jxb/erz573/5698117	2020
Erik Murchie	Robles-Zazueta CA, Molero G, Pinto F, Foulkes MJ, Reynolds MP, Murchie EH. Field-based remote sensing models predict radiation use efficiency in wheat. <i>J Exp Bot</i> . 2021;72(10):3756-3773. doi:10.1093/jxb/erab115	2021
Jared Crain	Crain, J., Wang, X., Evers, B., & Poland, J. Evaluation of field-based single plant phenotyping for plant breeding. <i>The Plant Phenome Journal</i> . DOI: 10.1002/ppj2.20045	2022
Jesse Poland	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 and M. E. Sorrells (2019) High-throughput phenotyping platforms enhance genomic selection for wheat grain yield across populations and cycles in early stage. <i>Theoretical and Applied Genetics</i> 132(6): 1705-1720. DOI: 10.1007/s00122-019-03309-0	2019

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Jesse Poland	Wang X., C. Amos, M. Lucas, G. Williams, J. Poland. (2019) Small plot identification from video streams for high-throughput phenotyping of large breeding populations with unmanned aerial systems. <i>Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping IV</i> . 11008(2019), 110080D. International Society for Optics and Photonics	2019
Jesse Poland	Xu Wang, Hong Xuan, Byron Evers, Sandesh Shrestha, Robert Pless, Jesse Poland, High-throughput phenotyping with deep learning gives insight into the genetic architecture of flowering time in wheat, <i>GigaScience</i> , Volume 8, Issue 11, November 2019, giz120, https://doi.org/10.1093/gigascience/giz120	2019
Jesse Poland	Wang X., P. Silva, N. Bello, D. Singh, B. Evers, S. Mondal, F. Pinto, R.P. Singh, and J. Poland (2020) Improved accuracy of high-throughput phenotyping from Unmanned Aerial Systems by extracting traits directly from orthorectified images. <i>Frontiers in plant science</i> 11: 1616. https://doi.org/10.3389/fpls.2020.587093	2020
John Laurie & Andre Laroche	Tock AJ, Holland DM, Jiang W, Osman K, Sanchez-Moran E, Higgins JD, Edwards KJ, Uauy C, Franklin FCH, Henderson IR. Crossover-active regions of the wheat genome are distinguished by DMC1, the chromosome axis, H3K27me3, and signatures of adaptation. <i>Genome Res.</i> 2021 Sep;31(9):1614-1628. doi: 10.1101/gr.273672.120. Epub 2021 Aug 23. PMID: 34426514; PMCID: PMC8415368.	2021
Jorge Dubcovsky	Debernardi JM, Lin H, Chuck G, Faris JD, Dubcovsky J. microRNA172 plays a crucial role in wheat spike morphogenesis and grain threshability. <i>Development.</i> 2017;144(11):1966-1975.	2017
Jorge Dubcovsky	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 impact quality characteristics in hard red spring wheat. <i>Crop Sci.</i> 58:1954-1963	2018
Jorge Dubcovsky	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. <i>Agronomy</i> 8: 133. doi:10.3390/agronomy8080133	2018
Jorge Dubcovsky	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 (<i>Triticum aestivum</i> L.). <i>Crop Sci.</i> 58: 2289-2301	2018

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Jorge Dubcovsky	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. <i>Crop Science</i> 58:1232-1241. doi:10.2135/cropsci2017.11.0710	2018
Jorge Dubcovsky	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. <i>Crop Science</i> 58:1838-1852	2018
Jorge Dubcovsky	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. <i>Euphytica</i> , 214: 128. doi:10.1007/s10681-018-2199-y	2018
Jorge Dubcovsky	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. <i>Molecular Genetics and Genomics</i> . doi:10.1007/s0043	2018
Jorge Dubcovsky	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. <i>Crop Science</i> . doi:10.2135/cropsci2018.04.0232	2018
Jorge Dubcovsky	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. <i>Mol. Genet. Genom.</i> 293: 463-477. doi:10.1007/s00438-017-1401-6	2018
Jorge Dubcovsky	Mo, Y., Vanzetti, L.S., Hale, I. et al. 2018. Identification and characterization of Rht25, a locus on chromosome arm 6AS affecting wheat plant height, heading time, and spike development. <i>Theor Appl Genet</i> (2018) 131: 2021. https://doi.org/10.1007/s00122-018-3130-6	2018
Jorge Dubcovsky	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. <i>G3</i> 9:125-133. G3/2018/200664	2018
Jorge Dubcovsky	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. <i>Mol. Bred.</i> 38:135	2018

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Jorge Dubcovsky	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. <i>Theor. Appl. Genet.</i> 131: 1741–1759. doi:10.1007/s00122-018-3111-9	2018
Jorge Dubcovsky	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. 2019. Sequence based mapping identifies AWNS1, a candidate transcription repressor underlying awn suppression at the B1 locus in wheat. <i>New Phytologist</i> . doi: 10.1111/nph.16152	2019
Jorge Dubcovsky	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. <i>Euphytica</i> . DOI: 10.1007/s10681-019-2478-2	2019
Jorge Dubcovsky	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. <i>Nat Genet.</i> 51:896904.	2019
Jorge Dubcovsky	Krause, M.R., L. Gonzalez-Perez, J. Crossa, P. Perez-Rodriguez, O. Montesinos-Lopez, 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. <i>Genes Genomes Genetics.</i> 9:1231-1247	2019
Jorge Dubcovsky	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. <i>Theor. Appl. Genet.</i> 132:26892705	2019
Jorge Dubcovsky	Larkin, D.L., D.N. Lozada, and R.E. Mason. 2019. Genomic selection considerations for successful implementation in wheat breeding programs. <i>Agronomy</i> . doi:10.3390/agronomy9090479	2019
Jorge Dubcovsky	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. <i>Development.</i> 146: On line first. doi:10.1242/dev.175398	2019

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