Publications IFAFS grant 2001-2005

1.- Large deletions in the first intron of the *VRN-1* vernalization gene are associated with spring growth habit in barley and polyploid wheat. Fu D., Szucs P., Yan L., Helguera M., Skinner J., Hayes P. and Dubcovsky J. Molecular Genetics and Genomics, 2005, 273:54-65.

2.- Registration of yellow dwarf viruses resistant wheat germplasm line P961341. Ohm H.W., Anderson J.M., Sharma H.C., Ayala L., Thompson N. and Uphaus J.J. Crop Science, 2005, 45:805-806.

3.- PCR markers for *Triticum speltoides* leaf rust resistance gene *Lr51* and their use to develop isogenic hard red spring wheat lines. Helguera M., Vanzetti L., Soria M., Khan I. A., Kolmer J., Dubcovsky J. Crop Science, 2005, 45:728–734.

4.- Nitrogen uptake and remobilization in tetraploid Langdon durum wheat and a recombinant substitution line with the high grain protein gene *Gpc-B1*. Kade M.A., Barneix A., Olmos S., Dubcovsky J. Plant Breeding, 2005,124: 343-349.

5.- Registration of KS99WGRC42 Hessian fly-resistant hard red winter wheat germplasm. Brown-Guedira G.L, Hatchett J.H., Liu X.M., Fritz A.K., Owuoche J.O., Gill B.S., Sears R.G., Cox T.S., Chen M.S. Crop Science, 2005, 45:804-805.

6.- Genetic loci related to kernel quality differences between a soft and a hard wheat. Breseghello F., Finney P.L., Gaines C., Andrews L., Tanaka J., Penner G., Sorrells M.E. Crop Science, 2005, 45:1685-1695.

7.- Molecular mapping determines that Hessian fly resistance gene *H9* is located on chromosome 1A of wheat. Kong L., Ohm H.W., Cambron S.E., Williams C.E. Plant Breeding, 2005, 124, 525-531.

8.- Quality of spaghetti made from full and partial waxy durum wheat. Vignaux N., Doehlert D.C., Elias E.M., McMullen M.S., Grant L.A., Kianian S.F. Cereal Chemistry, 2005,82:93-100.

9.- Genetic analysis of the species cytoplasm specific gene (scs^d) derived from durum wheat. Gehlhar S.B., Simons K.J., Maan S.S., Kianian S.F. Journal of Heredity, 2005, 96: 404-409.

10.- Species cytoplasm specific gene in euplasmic durum wheat does not alter field performance. Gehlhar S.B., Simons K.J., E.M.Elias, Maan S.S., Kianian S.F. Crop Science, 2005,45:1704-1707.

11.- Registration of five isogenic lines for leaf and stripe resistance genes. .Chicaiza O., Khan I.A., Zhang X., Brevis J.C., Jackson L., Chen X., Dubcovsky J. Crop Science, 2005. *In press*.

12.- *H9*, *H10*, and *H11* compose a cluster of Hessian fly-resistance genes in the distal gene-rich region of wheat chromosome 1AS Liu X. M., Fritz A. K., Reese J. C., Wilde G. E., Gill B. S. and Chen M.-S. Theoretical and Applied Genetics, 2005, 110(8):1473 - 1480.

13.- Hessian fly resistance gene *H13* is mapped to a distal cluster of resistance genes in chromosome 6DS of wheat. Liu X. M., Gill B. S. and Chen M.-S. Theoretical and Applied Genetics, 2005, 111:243-249.

14.- Molecular mapping and allelic relationships of Russian wheat aphid-resistance genes. Liu X. M., Smith C. M., Friebe B. R. and Gill B. S. Crop Science, 2005, 45:2273-2280.

15.- Molecular characterization of durum and common wheat recombinant lines carrying leaf rust resistance (*Lr19*) and yellow pigment (*Y*) genes from *Lophopyrum ponticum*. Zhang W., Lukaszewski A., Kolmer J., Soria M., Goyal S. and Dubcovsky J. Theoretical & Applied Genetics, 2005, 111:573-582.

16.- Grain quality characteristics and milling performance of full and partial waxy durum lines. Vignaux N., Doehlert D.C., Hegstad J., Elias E.M., McMullen M.S., Grant L.A., Kianian S.F. Cereal Chemistry, 2004, 81:377-383.

17.- Identification of microsatellite markers associated with a stem solidness locus in wheat. Cook J.P., Wichman D.M., Martin J. M., Bruckner P.L., Talbert L.E. Crop Science, 2004, 44:1397-1402.

18.- *Lr41*, *Lr39*, and a leaf rust resistance gene from *Aegilops cylindrica* may be allelic and are located on wheat chromosome 2DS Singh S., Franks C. D., Huang L., Brown-Guedira G. L., Marshall D. S., Gill B. S., Fritz A. Theoretical and Applied Genetics, 2004, 108(4): 586-591.

19.- Marker Assisted Selection in Public Breeding Programs: The Wheat Experience. Dubcovsky J. Crop Science, 2004, 44: 1895-1898.

20.- Sequencing of *Triticum monococcum* Hardness locus reveals good microcolinearity with rice. Chantret N., Cenci A., Sabot F., Anderson O.D., Dubcovsky J. 2004. Molecular Genetics and Genomics, 2004, 271:377-386.

21.- PCR marker for growth habit in common wheat based on allelic variation at the *Vrn-A1* gene. Sherman J.D., Yan L., Talbert L., Dubcovsky J. Crop Science, 2004, 44:1832-1838.

22.- Microcolinearity between a 2-cM region encompassing the grain protein content locus *Gpc-6B1* on wheat chromosome 6 and a 350-kb region on rice chromosome 2. Distelfeld A., Uauy C., Olmos S., Schlatter A.R., Dubcovsky J., Fahima T. Functional and Integrative Genomics, 2004, 4: 59-66.

23.- Putting genes into genetic coefficients. Baenziger P.S., McMaster G.S., Wilhelm W.W., Weiss A., Hays C.J. Field Crops Research, 2004, 90:133-143.

24.- The use of microsatellite markers for detection of genetic similarity among winter bread wheat lines for chromosome 3A. Mahmood A., Baenziger P.S., Budak H., Gill K.S., Dweikat I. Theoretical and Applied Genetics, 2004, 109(7):1494-1503.

25.- Molecular Mapping of the *Stb4* Gene for Resistance to Septoria Tritici Blotch in Wheat. Adhikari, T.B., Cavaletto J.R., Dubcovsky J., Gieco J.O., Schlatter, A.R., Goodwin, S.B. Phytopathology, 2004, 94:1198-1206.

26.- Allelic variation at the *VRN-1* promoter region in polyploid wheat. Yan L., Helguera M., Kato K., Fukuyama S., Sherman J., Dubcovsky J. Theoretical and Applied Genetics, 2004, 109: 1677-1686.

27.- Genome-specific primer sets for starch biosynthesis genes in wheat. Blake N.K., Sherman J.D., Dvorak J., Talbert L.E. Theoretical and Applied Genetics, 2004, 109:1295-1302.

28.- PCR identification of durum wheat BAC clones containing genes coding for carotenoid biosynthesis enzymes and their chromosome localization. Cenci A., Somma S., Chantret N., Dubcovsky J., Blanco A. Genome, 2004, 47:911-917.

29.- Genetic mapping of *Dn7*, a rye gene conferring resistance to the Russian wheat aphid in wheat. Anderson G.R., D. Papa, J. Peng, M. Tahir, and N. L.V. Lapitan. Theoretical Applied Genetics, 2003. 107:1297-1303.

30.- Performance and mapping of a leaf rust resistance gene transferred to wheat from *Triticum armeniacum*. Brown-Guedira G.L., S. Singh, and A.K. Fritz. Phytopathology, 2003, 93:784-789.

31.- Development of user-friendly PCR markers for wheat stripe rust resistance gene *Yr5*. Chen X., M.A. Soria, G. Yan, J. Sun, and J. Dubcovsky. Crop Science. 2003, 43:2058-2064.

32.- PCR assays for the *Lr37-Yr17-Sr38* cluster of rust resistance genes and their use to develop isogenic hard red spring wheat lines. Helguera M., Khan I.A., KolmerJ., Lijavetzky D., Zhong-qi L. and Dubcovsky J. Crop Science. 2003, 43:1839-1847.

33.- Precise mapping of a locus affecting grain protein content in durum wheat. Olmos S., Distelfeld A., Chicaiza O., Schlatter A. R., Fahima T., Echenique V. and Dubcovsky J. Theoretical. Applied. Genetics., 2003, 107:1243-1251.

34.- Agronomic and quality performance of progeny lines derived from spring wheat by durum wheat crosses. Lanning S.P., D. Habernicht, J. M. Martin, J.D. Sherman, A. Fischer, and L.E. Talbert. Cereal Chemistry, 2003, 80:717-721.

35.- Marker assisted evaluation of *Fusarium* head blight resistant wheat germplasm. Liu S., J.A. Anderson. Crop Science, 2003, 43:760-766.

36.- Targeted molecular mapping of a major wheat QTL for *Fusarium* head blight resistant using wheat ESTs and synteny with rice. Liu S., J.A. Anderson. Genome, 2003, 46:817-823.

37.- Effect of *Triticum monococcum* glutenin loci on cookie making quality and on predictive tests for bread making quality. Tranquilli G., M. Cuniberti, M.C. Gianibelli, L. Bullrich, O.R. Larroque, F. MacRitchie and J. Dubcovsky. Journal of Cereal Science, 2002, 36:9-18. .

38.- Identifying AFLP and microsatellite markers for vernalization response gene *Vrn-B1* in wheat (*Triticum aestivum* L.) using reciprocal mapping populations. Barrett B.A., M.E. Bayram and K.K. Kidwell. Plant Breeding, 2002, 121:400-406. .

39.- Substitutions and deletions of genes related to grain hardness in wheat (*Triticum aestivum* L.) and their effect on grain texture. Tranquilli G., J. Heaton, O. Chicaiza and J. Dubcovsky. Crop Science. 2002. 42:1812-1817.