

**Fredy Altpeter**

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**A. Professional Preparation**

Farms and estates in Germany	Crop and Animal Production	Farm Manager 1989
Univ. Hohenheim, Germany	Crop Science	Dipl. Ing. agr. 1990
Univ. Hohenheim, Germany	Plant Breeding & Biotechnology	Dr. sc. agr. 1994
Univ. of Florida, USA	Crop Biotechnology	Postdoc 1994-1997

**B. Appointments**

2012-present Professor	Agronomy Department	University of Florida
2008-2012 Associate Professor	Agronomy Department	University of Florida
2001-2008 Assistant Professor	Agronomy Department	University of Florida
1997-2001 Research Group Leader	Plant Genome Res. Center	IPK Gatersleben
1994-1997 Postdoc Research Associate	Horticulture Department	University of Florida
1991-1994 Graduate Research Assistant	Plant Breeding Department	University Hohenheim

**C. Areas of Specialization**

Synthetic biology, metabolic engineering, genome editing to optimize crop performance and sustainably produce value added bio products, fuels, cereals and turf and forage grasses. Risk management of genetically modified crops.

**D. Awards and Honors**

Rasila and Chandrakant Kadia Endowed Visiting Professorship, Ahmedabad University, 2023  
 Fellow Crop Science Society of America, 2021  
 Distinguished Scientist Award Society for In Vitro Biology, 2020  
 Fellow Society for In Vitro Biology, 2018  
 UF Research Foundation Professorship for distinguished research program, 2013 & 2018  
 UF Term Professorship for distinguished academic program, 2018  
 UF-IFAS High Impact Publication Award, 2014 & 2018  
 Gamma Sigma Delta Senior Faculty Award of Merit, 2016  
 Distinguished Service Award, Society for In Vitro Biology, 2012  
 Gamma Sigma Delta Junior Faculty Award of Merit, 2009

**E. Professional Service and Editorial Boards**

Chair C7 Division Crop Science Society of America 2020  
 Fundraiser and Symposium Organizer C7 Division Crop Science Society of America 2018 & 2020  
 Associate Editor Frontiers in Gene Editing 2022-present  
 Associate Editor Scientific Reports 2019-present  
 Associate Editor Crop Science 2004 – 2009  
 Associate Editor The Plant Genome 2017-2020  
 Associate Editor Plant Cell Tissue and Organ Culture: Journal of Plant Biotechnol. 2008 – 2020  
 Subject Editor Plant Breeding 2008 – 2019  
 Member Board of Directors, Society for In Vitro Biology (SIVB) 2011 – 2012; 2014 – 2019  
 Program Chair SIVB conference 2011 – 2012; 2018 – 2019  
 Chair 2nd International Conference on Plant Synthetic Biology 2018  
 Member Program Committee International Forage and Turf Breeding Conference 2018 – 2019  
 Chair Plant Biology Section, SIVB 2010 – 2012  
 Chair Plant Biotechnology Program Committee, SIVB 2008 – 2009  
 Fundraiser & Co-Chair Plant Biotechn. Program Committee, SIVB 2007 – 2008

## F. Present Job Responsibilities (20 % Teaching, 80 % Research)

### Courses Taught

**AGR 5307**, Molecular Genetics for Crop Improvement  
**PCB 5530**, Plant Molecular Biology and Genomics  
**AGR5321**, Genetic Improvement of Plants  
**AGR4320**, Plant Breeding

### Research Description

Dr. Altpeter's research program integrates translational genomics, molecular physiology and metabolic engineering for crop improvement and sustainable production of value added products. The approaches include precision genome editing, synthetic biology, and molecular dissection of regulatory networks. These research activities focus on identifying, isolating and engineering limiting factors for genetic improvement of cereals, turf, forage and biomass/bioenergy grasses. Re-designing photosynthesis, plant architecture and stress response pathways will enhance the productivity and persistence of commercially important grasses and will result in a more sustainable use of natural resources. Alternatively, quality improvement in biofuel feedstocks that are well adapted to stress can significantly increase their value. Metabolic engineering of high biomass crops like sugarcane and energycane will drive the emerging bioeconomy by generating next generation biofuels and chemicals. Risk assessment and development of risk management strategies are essential components of this molecular breeding program for grass improvement.

## G. Contracts and Grants

### Extramural Grants (Directly) Supporting Dr. Altpeter's Research, Career Total:

PI	Co-PI	Total
\$7,931,316	\$167,318,640	\$175,249,956
(\$7,147,849)	(\$9,716,500)	(\$16,864,349)

Major funding sources (\$ 15.6M in direct support) include DOE, NSF, USDA-NIFA, US-AID, CPBR, SWFWD, Plant Biotechnology Industry

Summary of External Grant Funding Received (Share of Grant Funding Supporting F. Altpeter's Research Program), Year 2013 – 2023			
Role	Total	Direct Costs	Indirect Costs
Principal Investigator	\$2,720,899	\$2,109,993	\$610,906
Co-Principal Investigator	\$9,537,966	\$6,212,424	\$3,325,542
<b>Totals</b>	<b>\$12,258,865</b>	<b>\$8,322,417</b>	<b>\$3,936,448</b>

## H. Management and Training of Human Resources

Graduate student committees chaired: 18

Undergraduate students trained: 46

Postdoctoral research associates supervised: 27

Visiting scientists hosted: 26

## I. Refereed Journal Articles

Senior/principal author(s) = Underline.

Self = bold

Graduate Student in Dr. Altpeter's program = g

Post-Doctoral Associate/Fellow in Dr. Altpeter's program = p

Visiting Scientist in Dr. Altpeter's program = v

Biological Scientist/Lab Technician in Dr. Altpeter's program = b

1. Cao, V.D.(p), Kannan, B.(b), Luo, G.(p), Liu, H., Shanklin, J. and **Altpeter, F.** 2023. Triacylglycerol, total fatty acid and biomass accumulation of metabolically engineered energycane grown under field conditions. *Global Change Biology - Bioenergy* (accepted for publication).
2. Cao, V.D.(p), Luo, G.(p), Korynta, S.(b), Liu, H., Liang, Y., Shanklin, J. and **Altpeter, F.** 2023. Intron-mediated enhancement of *DIACYLGLYCEROL ACYLTRANSFERASE1* expression in energycane promotes a step change for lipid accumulation in vegetative tissues. *Biotechnology for Biofuels and Bioproducts* (accepted for publication).
3. Hooghvorst, I.(p), and **Altpeter, F.** 2023. dCas9-3xSRDX-mediated transcriptional repression in sugarcane. *Plant Cell Rep.* (published online first). <https://doi.org/10.1007/s00299-023-03062-1>
4. Li, Y., Kontos, G.A., Cabrera, D.V, Avila, N.M., Parkinson, T.W., Viswanathan, M.B., Singh, V., **Altpeter, F.**, Labatut, R.A. and Guest, J.S. 2023. Design of a high-rate wastewater treatment process for energy and water recovery at biorefineries. *ACS Sustainable Chemistry & Engineering* 11:3861-3872. <https://doi.org/10.1021/acssuschemeng.2c07139>
5. Liang, Y., Yu, X., Anaokar, S., Shi, H., Dahl, W., Cai, Y., Luo, G. (p), Chai, J., Molla-Morales, A., **Altpeter, F.** 2023. Ernst, E., Schwender, J., Martienssen, R. and Shanklin, J. Engineering triacylglycerol accumulation in Duckweed (*Lemna japonica*). *Plant Biotechnology J.* 21:313-330. <https://doi.org/10.1111/pbi.13943>
6. Li, Y., Kontos, G. A., Cabrera, D. V., Avila, N. M., Parkinson, T., Viswanathan, M. B., Singh, V., **Altpeter, F.**, Labatut, R. and Guest, J. S. 2023. Design of a high-rate wastewater treatment process for energy and water recovery at biorefineries. *ACS Sustainable Chemistry & Engineering.* 11:3861-3872. <https://doi.org/10.1021/acssuschemeng.2c07139>
7. May, D.(g), Paldi, K.(p) and **Altpeter, F.** 2023. Targeted mutagenesis with sequence-specific nucleases for accelerated improvement of polyploid crops: progress, challenges, and prospects. *The Plant Genome* e20298. <https://doi.org/10.1002/tpg2.20298>
8. Yang, J, Sooksa-nguan, T., Kannan, B. (b), Cano-Alfano, S. (b), Liu, H., Kent, A., Shanklin, J., **Altpeter, F.** and Howe, A. 2023. Microbiome differences in sugarcane and metabolically engineered oilcane accessions and their implications for bioenergy production. *Biotechnology for Biofuels and Bioproducts* 16: 1-14. <https://doi.org/10.1186/s13068-023-02302-6>
9. Baskaran K. (b), Liu H., Shanklin J., **Altpeter F.** 2022. Towards oilcane: Field evaluation of metabolically engineered sugarcane with hyper-accumulation of triacylglycerol in vegetative tissues. *Molecular Breeding* 42:64. <https://doi.org/10.1007/s11032-022-01333-5>
10. Luo G. (p), Viet D.C. (p), Kannan B. (b), Liu H., Shanklin J., **Altpeter F.** 2022. Metabolic engineering of energycane to hyperaccumulate lipids in vegetative biomass. *BMC Biotechnol* 22: 24. <https://doi.org/10.1186/s12896-022-00753-7>
11. Maitra, S., Viswanathan, M., Park, K., Kannan, B. (b), Cano-Alfano, S. (b), McCoy, S., Cahoon, E., **Altpeter, F.**, Leakey, A. and Singh, V. 2022. Bioprocessing, recovery, and mass balance of vegetative lipids from metabolically engineered "oilcane" demonstrates its potential as an alternative feedstock for drop-in fuel production. *ACS Sustainable Chemistry & Engineering.* 10:16833–16844. <https://doi.org/10.1021/acssuschemeng.2c05327>

12. Brant E.J. (g), Baloglu M.C. (v), Parikh A. (b), **Altpeter F.** 2021. CRISPR/Cas9 mediated targeted mutagenesis of *LIGULELESS-1* in sorghum provides a rapidly scorable phenotype by altering leaf inclination angle. *Biotechnol J.* 16: e21002373. <https://onlinelibrary.wiley.com/doi/10.1002/biot.202100237>
13. Eid A. (p), Mohan C. (v), Sanchez S. (b), Wang D. (p), **Altpeter F.** 2021. Multiallelic, targeted mutagenesis of magnesium chelatase with CRISPR-Cas9 provides a rapidly scorable phenotype in highly polyploid sugarcane. *Front. Genome Ed.* 3:654996. <https://www.frontiersin.org/articles/10.3389/fgeed.2021.654996/full>
14. Faleiro, F.G. (v), Kim, J.Y. (p), Parikh, A. (b), **Altpeter F.** 2021. Generation of transgenic Napier grass (*Cenchrus purpureus* Schum.) plants by biolistic gene transfer of a minimal expression cassette. *Tropical Plant Biol.* 14, 371–380. <https://doi.org/10.1007/s12042-021-09298-z>
15. Oz MT (p), Altpeter A (b) Karan R (p) Merotto A (v), **Altpeter F.** 2021. CRISPR/Cas9 mediated multi-allelic homologous recombination in sugarcane confers herbicide tolerance. *Front. Genome Ed.* 3:673566. <https://www.frontiersin.org/articles/10.3389/fgeed.2021.673566/full>
16. Parikh, A. (b), Brant, E.J. (g), Baloglu, M.C. (v), **Altpeter F.** 2021. CRISPR/Cas-mediated genome editing in sorghum — recent progress, challenges and prospects. *In Vitro Cell.Dev.Biol.-Plant* 57, 720–730 (2021). <https://doi.org/10.1007/s11627-021-10215-y>
17. Zhao Y. (g), Karan R. (p), **Altpeter F.** 2021. Error-free recombination in sugarcane mediated by Cas9 induced DNA breaks and only 30 nucleotides of homology and its efficiency in comparison to *Cre*-recombinase. *Biotechnol J.* 16:e2000650. <https://onlinelibrary.wiley.com/doi/full/10.1002/biot.202000650>
18. Sinche M. (g), Kannan B. (b), Paudel D. (g), Corsato C. (v), Lopez Y., Wang J., **Altpeter F.** 2021. Development and characterization of a Napier grass (*Cenchrus purpureus* Schumach) mapping population for flowering-time- and biomass-related traits reveal individuals with exceptional potential and hybrid vigor. *GCB Bioenergy*, 13, 1561–1575. <https://doi.org/10.1111/gcbb.12876>
19. Parajuli S. (g), Kannan B. (b), Karan R. (p), Sanahuja G. (p), Liu H, Garcia-Ruiz E., Kumar D., Singh V., Zhao H., Long S., Shanklin J., **Altpeter F.** 2020. Towards oilcane: Engineering hyperaccumulation of triacylglycerol into sugarcane stems. *Global Change Biology – Bioenergy* 12:476–490. <https://onlinelibrary.wiley.com/doi/10.1111/gcbb.12684>
20. Zhao Y. (g), Kim YJ (p.), Karan R. (p), Jung J-H. (p), Pathak B. (b), Wang D (p). Williamson B. (b), Fan C, Yu W., Dong S., Srivastava V., **Altpeter F.** 2019. Generation of a safe harbor locus for transgene stacking in sugarcane. *Plant Mol. Biol.* 100: 247-263. <https://link.springer.com/article/10.1007/s11103-019-00856-4>
21. Kannan B. (p), Jung J.H. (p), Moxley G.W., Lee S.-M., **Altpeter F.** 2018. TALEN mediated targeted mutagenesis of more than 100 COMT copies/alleles in highly polyploid sugarcane improves saccharification efficiency without compromising biomass yield. *Plant Biotech. J.* 16: 856-866. <http://onlinelibrary.wiley.com/doi/10.1111/pbi.12833/full>
22. Ko, J. K., Jung, J. H.(p), **Altpeter, F.**, Kannan, B.(p), Kim, H. E., Kim, K. H., Alper, H. S., Um, Y. and Lee, S. M. 2018. Synergistic improvement of ethanol production by targeted mutagenesis of lignin biosynthesis in sugarcane and utilizing an engineered *Saccharomyces cerevisiae*. *Bioresour. Technol.* 256: 312-320. <https://www.sciencedirect.com/science/article/pii/S0960852418301457?via%3Dihub>
23. Paudel, D.(g), Kannan, B. (p), Yang X., Harris-Shultz K., Thudi M., Varshney R.K., **Altpeter, F.** and Wang, J. Surveying the genome and constructing a high-density genetic map of napiergrass (*Cenchrus purpureus* Schumach.). 2018. *Sci. Rep.* 8, 14419 2018 <https://www.nature.com/articles/s41598-018-32674-x>.
24. Lopez, Y., Kurashev, A., Chase, C., Gallo, M., Sollenberger, L., **Altpeter, F.** and Wang, J. Developing and validating microsatellite markers in elephantgrass (*Pennisetum purpureum* S.). 2018. *Euphytica* 214: 185 <https://link.springer.com/content/pdf/10.1007%2Fs10681-018-2256-6.pdf>

25. Rios, E., Kenworthy, K., Blount, A. R., Quesenberry, K., Unruh, B., Erickson, J., **Altpeter, F.** and Munoz, P. 2017. Breeding apomictic bahiagrass (*Paspalum notatum* Flugge) with improved turf traits. *Plant Breeding*. 136: 253-260. <http://onlinelibrary.wiley.com/doi/10.1111/pbr.12459/epdf>
26. Huang, H., Moreau, R. A., Powell, M. J., Wang, Z., Kannan, B. (p), **Altpeter, F.**, Grennan, A. K., Long, S. and Singh, V. 2017. Evaluation of the quantity and composition of sugars and lipid in the juice and bagasse of lipid producing sugarcane. *Biocat. Agric. Biotechn.* 10: 148-155. <https://www.sciencedirect.com/science/article/pii/S1878818116305059>
27. **Kim, J. Y.**(p), Nong, G., Rice, J. D., Gallo, M., Preston, J. F. and **Altpeter, F.** 2017. *In planta* production and characterization of a hyperthermostable GH10 xylanase in transgenic sugarcane. *Plant Mol. Biol.* 93: 465-478. <http://link.springer.com/article/10.1007%2Fs11103-016-0573-5>
28. **Altpeter F.**, Springer N.M., Bartley L.E., Blechl A.E., Brutnell T.P., Citovsky V., Conrad L.J., Gelvin S.B., Jackson D.P., Kausch A.P., Lemaux P.G., Medford J.I., Orozco-Cárdenas M.L., Tricoli D.M., Van Eck J., Voytas D.F., Walbot V., Wang K., Zhang Z.J., Stewart C.N. 2016. Advancing Crop Transformation in the Era of Genome Editing. *Plant Cell*. 28: 1510-1520. <http://www.plantcell.org/content/early/2016/06/22/tpc.16.00196.full.pdf+html>
29. **Jung, J. H.** (p) and **F. Altpeter**. 2016. TALEN mediated targeted mutagenesis of the caffeic acid O-methyltransferase in highly polyploid sugarcane improves cell wall composition for production of bioethanol. *Plant. Mol. Biol.* 92: 131-142. <http://link.springer.com/article/10.1007%2Fs11103-016-0499-y>.
30. **Zale, J.** (p), J.H. Jung (p), J.Y. Kim, B (p). B. Pathak (b), R. Karan (p), H. Liu, X. Chen, H. Wu (p), J. Candreva, Z. Zhai, J. Shanklin, **F. Altpeter**. 2016. Metabolic engineering of sugarcane to accumulate energy-dense triacylglycerols in vegetative biomass. *Plant Biotech. J.* 14: 661-669. <http://onlinelibrary.wiley.com/doi/10.1111/pbi.12411/epdf>.
31. **Dermawan H.** (g), R. Karan (p), J.H. Jung (p), Y. Zhao (g), S. Parajuli (g), G. Sanahuja (p), **F. Altpeter**. 2016. Development of an intragenic gene transfer and selection protocol for sugarcane resulting in resistance to acetolactate synthase-inhibiting herbicide. *J. Plant Biotechn.* 126: 459-468. <http://link.springer.com/article/10.1007/s11240-016-1014-5>.
32. **Faleiro, F.G.** (v), B. Kannan (p), **F. Altpeter**. 2016. Regeneration of fertile, hexaploid, interspecific hybrids of elephantgrass and pearl millet following treatment of embryogenic calli with antimetabolic agents. *Plant Cell Tiss. Org. Cult.* 124: 57-67. <http://link.springer.com/article/10.1007/s11240-015-0874-4>.
33. **Jung J. H.** (p), B. Kannan (p), H. Dermawan (g), G. W. Moxley and **F. Altpeter**. 2016. Precision breeding for RNAi suppression of a major 4-coumarate: coenzyme A ligase gene improves cell wall saccharification from field grown sugarcane. *Plant Mol. Biol.* 92:505-517. <http://link.springer.com/article/10.1007%2Fs11103-016-0527-y>.
34. **Wu, H.** (p), F.S. Awan (v), A. Vilarinho (v), Q. Zeng (v), B. Kannan (p), T. Phipps (b), J. McCuiston, W. Wang, K. Caffall, **F. Altpeter**. 2015. Transgene integration complexity and expression stability following biolistic or *Agrobacterium*-mediated transformation of sugarcane. *In Vitro Cell. Dev. Biol. Plant* 51: 603-611.
35. **Kannan, B.** (p), N. H. Davila-Olivas (u), P. Lomba (g) and **F. Altpeter**. 2015. In vitro chemical mutagenesis improves the turf quality of bahiagrass. *Plant Cell Tiss. Org. Cult.* 120: 551-561.
36. **Fouad, W. M.** (p), H. Wu (p), Y. Xiong (g), C. Steeves (u), S. Sandhu (v) and **F. Altpeter**. 2015. Generation of transgenic energy cane plants with integration of minimal transgene expression cassette. *Curr. Pharm. Biotechnol.* 16: 407-413.
37. **Jung, J. H.** (g), W. E. Vermerris, M. Gallo, J. R. Fedenko, J. E. Erickson, and **F. Altpeter**. 2013. RNAi suppression of lignin biosynthesis increases fermentable sugar yields for biofuel production from field-grown sugarcane. *Plant Biotech. J.* 11: 709-716.
38. **Xiong, Y.** (g), J. H. Jung (g), Q. Zeng (v), M. Gallo and **F. Altpeter**. 2013. Comparison of procedures for DNA coating of microcarriers in the transient and stable biolistic transformation of sugarcane. *Plant Cell Tiss. Org. Cult.* 112: 95-99.

39. Rios, E., A. R. Blount, J. E. Erickson, K. Quesenberry, **F. Altpeter**, C. Cellon and K. Kenworthy. 2013. Root and shoot characterization of mutant turf-type bahiagrasses. Intern. Turfgrass Soc. Res. J. 12: 509-516.
40. Joshi, S., Jain, M., Tillman, B.L., **Altpeter F.** and M. Gallo. 2013. Comparative analysis of direct plant regeneration from immature leaf whorl and floral explants for three elite US sugarcane (*Saccharum* spp. hybrids) genotypes. In Vitro Cell.Dev.Biol.-Plant 49: 674-681.
41. Jung, J. H. (g), W. M. Fouad (p), W. Vermerris, M. Gallo and **F. Altpeter**. 2012. RNAi suppression of lignin biosynthesis in sugarcane reduces recalcitrance for biofuel production from lignocellulosic biomass. Plant Biotech. J. 10: 1067-1076.
42. Kim, J. Y. (g), M. Gallo and **F. Altpeter**. 2012. Analysis of transgene integration and expression following biolistic transfer of different quantities of minimal expression cassette into sugarcane (*Saccharum* spp. hybrids). J. Plant Biotech. 108: 297-302.
43. Taparia, Y. (g), M. Gallo and **F. Altpeter**. 2012. Comparison of direct and indirect embryogenesis protocols, biolistic gene transfer and selection parameters for efficient genetic transformation of sugarcane. Plant Cell Tiss. Org. Cult. 111: 131–141.
44. Taparia, Y. (g), W. M. Fouad (p), M. Gallo and **F. Altpeter**. 2012. Rapid production of transgenic sugarcane with the introduction of simple loci following biolistic transfer of a minimal expression cassette and direct embryogenesis. In Vitro Cell. Dev. Biol. – Plant. 48: 15-22.
45. Kim, J. Y. (p), M. Kavas (v), W. M. Fouad (p), G. Nong, J. F. Preston and **F. Altpeter**. 2011. Production of hyperthermostable GH10 xylanase Xyl10B from *Thermotoga maritima* in transplastomic plants enables complete hydrolysis of methylglucuronoxylan to fermentable sugars for biofuel production. Plant Mol. Biol. 76: 357-369.
46. Sandhu, S. (g), A. R. Blount, K. E. Quesenberry and **F. Altpeter**. 2010. Apomixis and ploidy barrier suppress pollen mediated gene flow in field grown transgenic turf and forage grass (*Paspalum notatum* Flugge). Theor. Appl. Genet. 121: 919-929.
47. Xiong, X. (g), V. A. James (p) and **F. Altpeter**. 2010. Constitutive expression of the barley HvWRKY38 transcription factor enhances drought tolerance in turf and forage grass (*Paspalum notatum* Flugge) Mol. Breeding 25: 419-432.
48. Sandhu, S. (g), V. A. James (p), K. H. Quesenberry and **F. Altpeter**. 2009. Risk assessment of transgenic apomictic tetraploid bahiagrass, cytogenetics, breeding behavior and performance of intra-specific hybrids Theor. Appl. Genet. 119: 1383-1395.
49. Fouad, W. (p) and **F. Altpeter**. 2009. Chloroplast engineering to express the *E. coli* L-aspartate-a-decarboxylase enhances photosynthesis and biomass accumulation following heat stress. Transgenic Res. 18: 707-718.
50. Neibaur, I. (g), M. Gallo and **F. Altpeter**. 2008. The effect of auxin type and cytokinin concentration on callus induction and plant regeneration frequency from immature inflorescence segments of seashore paspalum. In Vitro Cell. Dev. Biol. – Plant 44: 480-485.
51. Sandhu, S. (g) and **F. Altpeter**. 2008. Co-integration, co-expression and inheritance of unlinked minimal transgene expression cassettes in apomictic turf and forage grass (*Paspalum notatum* Flugge). Plant Cell Rep. 27: 1755-1765.
52. James, V. A. (p), I. Neibaur (g) and **F. Altpeter**. 2008. Stress inducible expression of the DREB1A transcription factor from xeric, *Hordeum spontaneum* enhances abiotic stress tolerance in turf and forage grass (*Paspalum notatum* Flugge). Transgenic Res. 17: 93-104.
53. Puri, A., G. E. MacDonald, **F. Altpeter** and W. Haller. 2007. Mutations in Phytoene Desaturase Gene in Fluridone-Resistant Hydrilla (*Hydrilla verticillata*) Biotypes in Florida. Weed Science 55: 412-420.
54. Agharkar, M. (g), P. Lomba (g), **F. Altpeter**, H. Zhang, K. Kenworthy and T. Lange. 2007. Stable expression of AtGA2ox1 in a low-input turfgrass (*Paspalum notatum* Flugge) reduces



- bioactive gibberellin levels and improves turf quality under field conditions. *Plant Biotech. J.* 5: 791-801.
55. Luciani, G. (g), **F. Altpeter**, J. Yactayo-Chang (v), H. Zhang (b), M. Gallo, R. Meagher and D. Wofford. 2007. Expression of cry1Fa in bahiagrass enhances resistance to fall armyworm. *Crop Sci.* 47: 2430-2436.
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  57. Zhang, H. (b), P. Lomba (g) and **F. Altpeter**. 2007. Improved turf quality of transgenic bahiagrass constitutively expressing the ATHB16 gene, a repressor of cell expansion. *Mol. Breeding* 20: 415-423.
  58. **Altpeter, F.**, N. Baisakh, R. Beachy, R. Bock, T. Capell, P. Christou, H. Daniell, K. Datta, S. Datta, P. J. Dix, C. Fauquet, N. Huang, A. Kohli, H. Mooibroek, L. Nicholson, T. T. Nguyen, G. Nugent, K. Raemakers, A. Romano, D. A. Somers, E. Stoger, N. Taylor and R. Visser. 2005. Particle bombardment and the genetic enhancement of crops: myths and realities. *Mol. Breeding* 15: 305-327.
  59. Wieser, H., W. Seilmeier, R. Kieffer and **F. Altpeter**. 2005. Flour protein composition and functional properties of transgenic rye lines expressing HMW subunit genes of wheat. *Cereal Chem.* 82: 594-600.
  60. **Altpeter, F.** and V. A. James (p). 2005. Genetic transformation of turf-type bahiagrass (*Paspalum notatum* Flugge) by biolistic gene transfer. *Int. Turfgrass Soc. Res. J.* 10: 485-489.
  61. **Altpeter, F.** and M. Positano (g). 2005. Efficient plant regeneration from mature seed derived embryogenic callus of turf-type bahiagrass (*Paspalum notatum* Flugge). *Int. Turfgrass Soc. Res. J.* 10: 479-484.
  62. **Altpeter, F.**, A. Varshney, O (p). Abderhalden, D. Douchkov, C. Sautter, J. Kumlehn, R. Dudler and P. Schweizer. 2005. Stable expression of a defense-related gene in wheat epidermis under transcriptional control of a novel promoter confers pathogen resistance. *Plant Mol. Biol.* 57: 271-283.
  63. **Altpeter, F.**, J. C. Popelka (g) and H. Wieser. 2004. Stable expression of 1Dx5 and 1Dy10 high-molecular-weight glutenin subunit genes in transgenic rye, drastically increases the polymeric glutenin fraction in rye flour. *Plant Mol. Biol.* 54: 783-792.
  64. Popelka, J. C. (g) and **F. Altpeter**. 2003. Evaluation of rye (*Secale cereale* L.) inbred lines and their crosses for tissue culture response and stable genetic transformation of homozygous rye inbred line L22 by biolistic gene transfer. *Theor. Appl. Genet.* 107: 583-590.
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## J. Book Chapters

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4. **Altpeter, F.** and S. Sandhu (g): Genetic Transformation – Biolistics. In: *Plant Cell Culture: Methods Express* Davey M. and Anthony P. (eds.) Scion Publishing Ltd, Oxfordshire, United Kingdom 2009 pp. 217-240.



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**K. Number of Abstracts Presented at Conferences: 345**

**L. Number of Awards and Honors for Graduate Students in Dr. Altpeter's Research Program: 58**

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