

**ERICH GROTEWOLD, Ph.D.**  
**CURRICULUM VITAE**

**PRESENT ADDRESS**

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**EDUCATION**

1985-1988            Ph.D., Chemistry, Instituto de Ingeniería Genética y Biología Molecular (INGEBI), and University of Buenos Aires, Buenos Aires, Argentina.  
1981-1985            B.Sc., Chemistry, Faculty of Science, University of Buenos Aires, Argentina

**POSTDOCTORAL TRAINING**

1989 - 1993            Post-Doctoral Research Fellow, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

**ACADEMIC APPOINTMENTS**

8/17 – present        Professor, Department of Biochemistry and Molecular Biology, Michigan State University, East Lansing, MI.  
8/17 – 8/22            Chair, Department of Biochemistry and Molecular Biology, Michigan State University, East Lansing, MI.  
10/11 – 7/17           Director, Center for Applied Plant Sciences (CAPS), The Ohio State University, Columbus, OH.  
10/11 – 8/17           Founder and Director, Translational Plant Sciences Graduate Program, The Ohio State University, Columbus, OH.  
8/09 – 8/17            Director, Arabidopsis Biological Resource Center (ABRC), The Ohio State University, Columbus, OH.  
9/06 – 8/17            Professor, Department of Molecular Genetics (College of Arts & Sciences) and Department of Horticulture and Crop Sciences (College of Food, Agriculture & Environmental Sciences), The Ohio State University, Columbus, OH.  
9/07 - 6/08            Visiting Professor (Sabbatical), Mathematical Bioscience Institute, The Ohio State University, Columbus, OH.  
9/01 – 8/06            Associate Professor, Department of Plant Cellular & Molecular Biology and Department of Horticulture and Crop Sciences, The Ohio State University, Columbus, OH.  
2/98 – 8/01            Assistant Professor, Department of Plant Biology and Department of Horticulture and Crop Sciences, The Ohio State University, Columbus, OH.  
3/95 – 1/98            Assistant Investigator, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.  
6/93 – 2/95            Staff Associate, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

**HONORS AND AWARDS**

2023                    MSU College of Natural Sciences Outstanding Faculty Award  
2022                    Elected Fellow of the American Society of Plant Biologists (ASPB)  
8/18 - present        Chair Guest Professor in Plant Molecular Biology, National Chung Hsing University, Taiwan  
2012 – 2014           OSU Faculty Entrepreneurial Scholar

2009	Elected Fellow of the American Association for the Advancement of Science (AAAS)
2006	The Ohio State University College of Biological Sciences Dean's Award for Excellence in Undergraduate Research Mentoring
1995	Demerec-Kaufmann-Hollaender Fellow in Developmental Genetics
1989 - 1990	Long Island Biological Association Fellowship
1986 - 1989	Fellow of the National Research Council of Argentina
1985 - 1986	University of Buenos Aires Fellow

### CONSULTING AND MAJOR SERVICE ACTIVITIES

10/21 – 12/24	Member, Advisory Committee for the NSF Directorate for Biological Sciences
9/21 – 10/25	Member, Board of Trustees, American Society of Plant Biologists (ASPB)
1/04 – 12/05	Consultant CERES, Inc. Thousand Oaks, CA

### EDITORIAL BOARDS

2024 – 2028	Editorial Board, <i>Journal of Biological Chemistry (JBC)</i>
2024 – present	Reviewing Editor, <i>The Plant Cell</i>
2021 - 2024	Guest Editor, <i>The Plant Cell</i>
2021 - 2022	Associate Editor, <i>Journal of Genome Editing and Regulation</i>
2019 - 2022	Faculty Member, F1000Prime Plant Biochemistry & Physiology Section
2019	Guest Editor, <i>Proceedings National Academy of Sciences, USA</i>
2016 - 2020	Editorial Board, <i>Plant and Cell Physiology</i>
2016	Guest Co-Editor, <i>Plant Gene Regulatory Mechanisms</i> Special Issue for <i>BBA-Gene Regulatory Mechanisms</i>
2014 – 2017	Editorial Board, <i>G3: Genes   Genomes   Genetics</i>
2014 – present	Editorial Board, <i>Genome Biology</i>
2013	Guest Co-Editor, 2013 <i>Plant Genomics</i> Special Issue of <i>Genome Biology</i>
2011 – 2022	Editor-in-Chief, <i>Plant Science</i>
2011 – 2013	Member, Review Editorial Board of <i>Frontiers in Plant Metabolism and Chemodiversity</i>
2010 – 2012	Editor, <i>Biochemistry and Physiology Section, BMC Plant Biology</i>
2011 – 2015	Editorial Board, <i>Scientific Reports</i>
2010 – 2018	Honorary Editorial Board, <i>Research and Reports in Biology</i>
2010 – 2013	Member, Review Editorial Board, <i>Frontiers in Plant Physiology</i>
2009 – 2017	Editorial Board, <i>BBA – Gene Regulatory Mechanisms</i>
2009 – present	Editorial Board, <i>Plant Science Journal</i>
2008 – 2010	Associate Editor, <i>BMC Plant Biology Journal</i>
2005 – 2008	Member Editorial Board, <i>BMC Plant Biology Journal</i>
2007 – 2008	Guest Co-Editor, 2008 <i>Plant Issue of Current Opinions in Biotechnology</i>
2006 – 2010	Member, Faculty of 1000 Plant Biology
2005 – 2008	Member Editorial Board, <i>Molecular Biotechnology</i>
2004 – 2005	Editorial Board, MaizeGDB ( <a href="http://www.maizegdb.org/">http://www.maizegdb.org/</a> )

### WORKSHOP AND SCIENTIFIC CONFERENCE ORGANIZER

9/23 – present	Chair, Scientific Committee, International Camelina Conference (2024)
3/15 - 3/18	Maize Genetics Conference Steering Committee Meeting (Organizer for 2017 Conference)
2014 - 2018	Organizing Committee, International Conference on Arabidopsis Research (ICAR).
7/05, 7/10, 7/12, 7/14, 6/16	Organizer and Director, Practical Summer Workshop in Functional Genomics, The Ohio State University, Columbus, OH

6/14	Co-Chair, Department of Energy (DoE) Biological and Environmental Research Bioenergy Workshop, Washington DC
6/10	Co-Chair, Ohio Conference Computational Biology (OCCBIO). Columbus, OH
4/09	Co-Chair, The DNA-Proteome: Recent Advance Towards Establishing the Protein-DNA Interaction Space. Barcelona BioMed Conference, Spain
7/07	Co-Founder and Co-Chair Gordon Kenan Research Seminars in Plant Metabolic Engineering, Tilton, NH
7/07	Chair, Gordon Research Conference in Plant Metabolic Engineering, Tilton, NH
7/05	Co-Founder and Co-Chair, Gordon Research Conference in Plant Metabolic Engineering, Tilton, NH
8/03	Chairperson, Symposium on Maize Phytochemicals at the Phytochemical Society of North America Annual Conference, Peoria, IL
7/03 – 7/04, 7/10	Member, Scientific Program Committee for the 2004 & 2010 International Workshop on Anthocyanins.

### MEMBERSHIPS AND OFFICES IN PROFESSIONAL SOCIETIES

2015 - 2018	Elected Member of the Maize Genetics Conference Steering Committee
2014 - 2018	Elected Member of the North American Arabidopsis Steering Committee (NAASC)
2009 -	Member, American Association for the Advancement of Science
2004 -	Member, American Society for Biochemistry and Molecular Biology
2002 – 2007; 2020 -	Member, Phytochemical Society of North America
2000 - 2017	Member, American Society of Cell Biology
1997 -	Member, Genetics Society of America
1997 -	Member, American Society of Plant Biology

### PEER REVIEWED PUBLICATIONS (Google Scholar *h*-index 74; total citations 27,928)

Google Scholar: <https://scholar.google.com/citations?user=qJ8iOCsAAAAJ&hl=en>

ORCID: 0000-0002-4720-7290

1. Sugimoto, K., Irani, N., Grotewold, E., and Howe, G. (2024) Catalytically impaired chalcone isomerase retains flavonoid biosynthetic capacity. *Plant Physiol*, Accepted for publication
2. Sudhakaran, M., Arango, D., García Navarrete, L.T., Mejía-Guerra, M.K., Mukundi, E., Eubank, T.D., Grotewold, E., and Doseff, A.I. (2023) Transcriptome reprogramming through alternative splicing triggered by apigenin drives cell death in triple-negative breast cancer. *Cell Death Dis.* **14**: 824.
3. Ying, S., Webster, B., Gomez-Cano, L. Shivaiah, K.-K., Wang, Q., Newton, L., Grotewold, E., Thompson, A., Lundquist, P.K. (2023) Multi-scale physiological responses to nitrogen supplementation of maize hybrids. *Plant Physiol*. <https://doi.org/10.1093/plphys/kiad583>
4. Ellison, E.L., Zhou, P., Hermanson, P., Chu, Y.-H., Read, A., Hirsch, C.N., Grotewold, E., and Springer, N. (2023) *Mutator* transposon insertions within maize genes often provide a novel outward reading promoter. *Genetics*, **225**: iyad171
5. Arias, C., Garcia Navarrete, L., Mukundi, E., Swanson, T., Yang, F., Hernandez, J., Grotewold, E., and Alonso, AP. (2023) Metabolic and transcriptomic study of pennycress natural variation identifies targets for oil improvement. *Plant Biotech J.* **21**: 1887 – 1903. <https://doi.org/10.1111/pbi.14101> [Includes the cover of the issue]
6. Lee, Y.S., Shiu, S.-H., and Grotewold, E. (2023) Evolution and diversification of the ACT-like domain associated with plant basic helix-loop-helix transcription factors. *Proc Natl Acad Sci USA*, **120**: e2219469120
7. Johnston, C., García Navarrete, L.T., Ortiz, E., Romsdahl, T.B., Guzha, A., Chapman, K.D., Grotewold, E., and Alonso, A.P. (2022) Effective mechanisms for improving seed oil production in

- pennycress (*Thlaspi arvense* L.) highlighted by integration of comparative metabolomics and transcriptomics. *Front Plant Sci.* **13**: 943585
8. Rodrigues, J., Gomez-Cano, L., Grotewold, E., and de Leon, N. (2022) Normalizing and correcting variable and complex LC–MS metabolomic data with the R package pseudoDrift. *Metabolites*, **12**: 435
  9. García Navarrete, L.T., Arias, C., Mukundi, E., Alonso, A.P., and Grotewold, E. (2022) Natural variation and improved genome annotation of the emerging biofuel crop field pennycress (*Thlaspi arvense*). *G3 – Genes Gen Genet.* **12**: jkac084. doi: 10.1093/g3journal/jkac084
  10. Gomez-Cano, F., Chu, Y.-H., Cruz-Gomez, M., Abdullah, H.M., Lee, Y.S., Schnell, D.J., and Grotewold, E. (2022) Exploring *Camelina sativa* lipid metabolism regulation by combining gene co-expression and DNA-affinity purification analyses. *Plant J.* **110**: 589-606. doi: 10.1111/tpj.15682
  11. Ding, X., Zhang, X., Paez Valencia, J., McLoughlin, F., Reyes Marquez, F., Morohashi, K., Grotewold, E., Vierstra, R.D., Otegui, M. (2022) Microautophagy mediates vacuolar delivery of storage proteins in maize aleurone cells. *Front Plant Sci.* **13**:833612. doi: 10.3389/fpls.2022.833612
  12. Zhou, P., Enders, T.A., Myers, Z.A., Magnusson, E., Crisp, P.A., Noshay, J., Gomez-Cano, F., Grotewold, E., Greenham, K., and Springer, N. (2022) Prediction of conserved and variable heat and cold stress response in maize using *cis* regulatory information. *Plant Cell*, **34**: 514-534 doi: 10.1093/plcell/koab267 [Selected for In Brief Commentary]
  13. Moore, B.M., Lee, Y.S., Wang, P., Azodi, C., Grotewold, E., and Shiu, S.-H. (2022) Modeling temporal and hormonal regulation of plant transcriptional response to wounding. *Plant Cell*, **34**: 867 – 888. doi: 10.1093/plcell/koab287.
  14. Mann, J., Larson, J., Pomeranz, M., Knee, E.M., Shin, D., Miller, J.A., Price, C.G., Grotewold, E., and Brkljacic, J. (2021) Linking genotype to phenotype: The effect of a mutation in gibberellic acid production on plant germination. *CourseSource*, <https://doi.org/10.24918/cs.2017.18>.
  15. Lee, Y.S., Herrera Tequia, E.A., Silwal, J., Geiger, J., and Grotewold, E. (2021). A hydrophobic residue stabilizes dimers of regulatory ACT-like domains in plant basic helix-loop-helix transcription factors. *J Biol Chem*, **296**: 100708. doi: 10.1016/j.jbc.2021.100708.
  16. Gomez-Cano, F., Carey, L., Lucas, K., García Navarrete, T., Mukundi, E., Lundback, S., Schnell, D., and Grotewold, E. (2020) CamRegBase: a gene regulation database for the biofuel crop, *Camelina sativa*. *Database*, **2020**, baaa075.
  17. Jiang, N., Gutierrez-Diaz, A., Mukundi, E., Lee, Y.S., Meyers, B.C., Otegui, M.S., and Grotewold, E. (2020) Synergy between the anthocyanin and RDR6/SGS3/DCL4 siRNA pathways expose hidden features of *Arabidopsis* carbon metabolism. *Nature Comm*, **11**, 2456.
  18. Zhou, P., Li, Z., Magnusson, E., Gomez-Cano, F.A., Crisp, P.A., Noshay, J.M., Grotewold, E., Hirsch, C.N., Briggs, S.P., and Springer, N.M. (2020) Meta gene regulatory networks in maize highlight functionally relevant regulatory interactions. *Plant Cell*, **32**: 1377-1396.
  19. Gomez-Cano, L., Gomez-Cano, F., Dillon, F.M., Alers-Velazquez, R., Doseff, A.I., Grotewold, E., and Gray, J. (2020) Discovery of modules involved in the biosynthesis and regulation of maize phenolic compounds. *Plant Sci*, **291**: 110364.
  20. Jian, N., Lee, Y.S., Mukundi, E., Gomez-Cano, F., Rivero, L., and Grotewold, E. (2020) Diversity of genetic lesions characterizes new *Arabidopsis* flavonoid pigment mutant alleles from T-DNA collections. *Plant Sci*, **291**: 110335.
  21. Milutinovica, M., Lindsey IIIa, B.L., Wijeratne, A., Hernandez, J.M., Grotewold, N., Fernández, V., Grotewold\*, E., and Brkljacic\*, J. (2019) *Arabidopsis* EMSY-like (EML) histone readers are necessary for post-fertilization seed development but prevent fertilization-independent seed formation. *Plant Sci*, **285**: 99-109.
  22. Jones, M.A., Morohashi, K., Grotewold, E., and Harmer, S.L. (2019) *Arabidopsis* JMJD5/JMJ30 acts independently of LUX ARRHYTHMO within the plant circadian clock to enable temperature compensation. *Front Plant Sci*, **10**: (57).

23. Cocuron, J.C., Casas, M.I., Yang, F.; Grotewold, E, and Alonso, A.P. (2019) Beyond the wall: High-throughput quantification of plant soluble and cell-wall bound phenolics by liquid chromatography tandem mass spectrometry. *J Chromatogr A*, **1589**: 93-104.
24. Righini, S., Rodriguez, E.J., Berosich, C.; Grotewold, E., Casati, P., and Falcone Ferreyra, M.L. (2019) Apigenin produced by maize flavone synthase I and II protects plants against UV-B-induced damage. *Plant Cell Environ*, **42**:495-508.
25. Silva, G., Silva, E.; Correa, J., Vicente, M., Jiang, N., Notini, M., Carvalho Junior, A., De Jesus, F., Castilho, P., Carrera, E., Lopez, I., Grotewold, E., Peres, Peres, LEP, Nogueira, F. (2019) Tomato floral induction and flower development are orchestrated by the interplay between gibberellin and two unrelated microRNA-controlled modules. *New Phytol*, **221**:1328-1344.
26. Kovinich, N., Wang, Y., Adegboye, J., Chanoca, A., Otegui, M.S., Durkin, P., and Grotewold, E. (2018) Arabidopsis MATE45 antagonizes local abscisic acid signaling to mediate development and abiotic stress responses. *Science Direct*, **2**: e00087
27. Ouma, W.Z., Pogacar, K., and Grotewold, E. (2018) Topological and statistical analyses of gene regulatory networks reveal unifying yet quantitatively different emergent properties. *PLoS Comp Biol*, **14**: e1006098.
28. Price, C.G., Knee, E.M., Miller, J.A., Shin, D., Mann, J., Crist, D.K., Grotewold, E., and Brkljacic, J. (2018) Following phenotypes: An exploration of Mendelian genetics using *Arabidopsis* plants. *Am Biol Teach*, **80**: 291-300.
29. Lindsey III, B.E., Rivero, L., Calhoun, C.S., Grotewold, E., and Brkljacic, J. (2017). Standardized method for high-throughput sterilization of *Arabidopsis* seeds. *JoVE*, **17** (128).
30. Iwase, A., Harashima, H., Ikeuchi, M., Rymen, B., Ohnuma, M., Komaki, S., Morohashi, K., Kurata, T., Nakata, M., Ohme-Takagi, M., Grotewold, E. and Sugimoto, K. (2017). WIND1 promotes shoot regeneration through transcriptional activation of ESR1 in *Arabidopsis*. *Plant Cell*, **44**: 124-129.
31. Casas, M.I., Vaughan, M.J., Bonello, P., McSpadden Gardener, B., Grotewold, E., and Alonso, A.P. (2017) Identification of biochemical features of defective *Coffea arabica* L. beans. *Food Res Int*, **95**: 59-67.
32. Yang, F., Li, W., Jiang, N., Yu, H., Morohashi, K., Ouma, W.Z., Morales-Mantilla, D., Gomez-Cano, F., Mukundi, E., Prada-Salcedo, L.D., Alers Velazquez, R., Valentin, J., Mejía-Guerra, M.K., Gray, J., Doseff, A.I., and Grotewold, E. (2017). A maize gene regulatory network for phenolic metabolism. *Mol Plant*, **10**: 489-515.
33. Chanoca, A., Burkel, B., Kovinich, N., Grotewold, E., Eliceiri, K., and Otegui, M. (2016) Using fluorescence lifetime microscopy to study the subcellular localization of anthocyanins. *Plant J*, **85**: 895-903.
34. Casas, M.I., Falcone-Ferreyra, M.L., Jiang, N., Mejía-Guerra, K.M., Rodriguez, E.J., Wilson, T., Casati, P., and Grotewold, E. (2016) Identification and characterization of maize salmon silks genes involved in insecticidal maysin biosynthesis. *Plant Cell*, **28**: 1297-1309. [Includes the cover of the issue]
35. Agarwal, T., Grotewold, E., Doseff, A.I., and Gray, J. (2016) MYB31/MYB42 syntelogs exhibit divergent regulation of phenylpropanoid genes in maize, sorghum, and rice. *Sci Rep*, **6**: 28502.
36. Cardenas, H., Arango, H., Nicholas, C., Duarte, S., He, W., Nuovo, G., Voss, O., Gonzalez-Mejia, E., Guttridge, D., Grotewold, E., Doseff, A.I. (2016) Dietary apigenin exerts immune-regulatory activity in vivo by reducing NF- $\kappa$ B activity, halting leukocyte infiltration and restoring normal metabolic function. *Intl J Mol Sci*, **17**: E323.
37. Mejía-Guerra, K.M., Li, W., Galeano, N.F., Vidal, M., Gray, J., Doseff, A.I., and Grotewold, E. (2015) Core promoter plasticity between maize tissues and genotypes contrasts with predominance of sharp transcription initiation sites. *Plant Cell*, **27**: 3309-3320.
38. Vélez-Bermúdez, I.C., Salazar-Henao, S.H., Fornalé, S., López-Vidriero, I., Franco-Zorrilla, J.M., Grotewold, E., Gray, J., Solano, R., Pagés, M., Riera, M., and Caparros-Ruiz, D. (2015) A MYB/ZML complex regulates wound-induced lignin genes in maize. *Plant Cell*, **27**: 3245-3259.

39. Wang, H-Z., Yang, K-Z., Zou, J-J., Zhu, L-L., Xie, Z., Morita, M.T., Tasaka, M., Friml, J., Grotewold, E., Vanneste, S., Sack, F., and Le, J. (2015) Transcriptional regulation of PIN genes by FOUR LIPS and MYB88 during Arabidopsis root gravitropism. *Nature Comm*, **6**: 8822.
40. Chen, Q., Liu, Y., Maere, S., Lee, E., Van Isterdael, G., Xie, Z., Xuan, W., Lucas, J., Vassileva, V., Kitakura, S., Mahrhavy, P., Wabnik, K., Geldner, N., Benkova, E., Le, J., Fukaki, H., Grotewold, E., Li, C., Friml, J., Sack, F., Beeckman, T., and Vanneste, S. (2015) A coherent transcriptional feed-forward motif controls auxinsensitive *PIN3* expression for lateral root development. *Nature Comm*, **6**: 8821.
41. Falcone-Ferreira, M.L., Emiliani, J., Rodriguez, E.J., Grotewold, E., and Casati, P. (2015) The identification of maize and *Arabidopsis* type I flavone synthases links flavones with hormones and biotic interactions. *Plant Physiol*, **169**: 1090-107.
42. Chanoca, A., Kovinich, N., Burkel, B., Stecha, S., Bohorquez-Restrepo, A., Ueda, T., Elicein, K.W., Grotewold, E. and Otegui, M.S. (2015) Formation of anthocyanin vacuolar inclusions is mediated by a microautophagy mechanism. *Plant Cell*, **27**: 2545-2559. [Includes the cover of the issue and commentary in *Nature News & Views*]
43. Gray, J., Burdo, B., Goetting-Minesky, M. P., Wittler, B., Hunt, M., Li, T., Velliquette, D., Thomas, J., Agarwal, T., Key, K., Gentzel, I., Brito, M. d., Mejía-Guerra, M. K., Connolly, L. N., Qaisi, D., Li, W., Casas, M. I., Doseff, A. I. and Grotewold, E. (2015). Protocol for the generation of a transcription factor open reading frame collection (TFome). *Bio-protocol*, **5**: e1547. (<http://www.bio-protocol.org/e1547>)
44. Kovinich, N., Kayanja, G., Chanoca, A., Otegui, M., and Grotewold, E. (2015). Abiotic stresses induce different anthocyanin localizations in *Arabidopsis*. *Plant Signal Behav*, **10**: e1027850.
45. Ouma, W.Z., Mejía-Guerra, M.K., Yilmaz, A., Pareja Tobes, P., Li, W., Doseff, A.I., and Grotewold, E. (2015) Important biological information uncovered in previously unaligned reads from chromatin immunoprecipitation experiments (ChIP-Seq). *Sci Rep*, **5**: 8635.
46. Casas, M.I., Duarte, S.M., Doseff, A.I., and Grotewold, E. (2014) Flavone-rich maize: An opportunity to improve the nutritional value of an important commodity crop. *Frontiers Plant Sci*, **5**: 1-11.
47. Burdo, B., Gray, J., Goetting-Minesky, M.P., Wittler, B., Hunt, M., Li, T., Velliquette, D., Thomas, J., Gentzel, I., Brito, M.D., Mejía-Guerra, M.K., Connolly, L.N., Qaisi, D., Li, W., Casas, M.I., Doseff, A.I., and Grotewold, E. (2014) The Maize TFome - Development of a transcription factor open reading frame collection for functional genomics. *Plant J*. **80**: 356-366.
48. Kovinich, N., Kayanja, G., Chanoca, A., Riedl, K., Otegui, M., and Grotewold, E. (2014) Not all anthocyanins are born equal: Distinct patterns induced by stress in *Arabidopsis*. *Planta* **240**: 356-366.
49. Zhiponova, M.K., Morohashi, K., Vanhoutte, I., Machemer-Noonan, K., Revalska, M., Van Montagu, M., Grotewold, E., and Russinova, J. (2014) HLH/bHLH transcription factor network represses cell elongation in *Arabidopsis* via an apparently incoherent feed-forward loop. *Proc Natl Acad Sci USA*, **111**: 2824-2829.
50. Eveland, A.L., Goldschmidt, A., Pautler, M., Morohashi, K., Liseron-Monfils, C., Lewis, M.W., Kumari, S., Hiraga, S., Yang, F., Unger-Wallace, E., Olson, A., Hake, S., Vollbrecht, E., Grotewold, E., Ware, D., and Jackson, D. (2014) Regulatory modules controlling maize inflorescence architecture. *Genome Res*, **24**:431-443.
51. Falcone Ferreira, M.F., Rodriguez, E., Casas, M.I., Labadie, G., Grotewold, E., and Casati, P. (2013) Identification of a bifunctional maize C- and O-glucosyltransferase. *J Biol Chem*, **288**: 31678-31688.
52. Arango, D., Morohashi, K., Yilmaz, A., Kuramonchi, K., Brahimaj, B., Grotewold, E., and Doseff, A.I. (2013) Molecular basis for the action of a dietary flavonoid revealed by the comprehensive identification of apigenin human targets. *Proc Natl Acad Sci USA*, **110**: E2153-2162.

53. Pourcel, L., Irani, N.G., Koo, A.J.K., Bohorquez-Restrepo, A., Howe, G.A., and Grotewold, E. (2013) A chemical complementation approach reveals genes and interactions of flavonoids with other pathways. *Plant J*, **74**: 383-397.
54. Emiliani, J., Grotewold, E., Falcone Ferreyra, M.F., and Casati, P. (2013) Flavonols protect *Arabidopsis* plants against UV-B deleterious effects. *Molecular Plant*, **6**: 1376-1379.
55. Pomeranz, M., Campbell, J., Siegal-Gaskins, D., Engelmeier, J., Wilson, T., Fernandez, V., Brkljacic, J. and Grotewold, E. (2013) High-resolution computational imaging of leaf hair patterning using polarizing light microscopy. *Plant J*, **73**: 701-708.
56. Breuer, C. Morohashi, K., Kawamura, A., Takahashi, N., Ishida, N., Umeda, M., Grotewold, E., and Sugimoto, K. (2012) Transcriptional repression of the APC/C activator CCS52A1 contributes to the active termination of cell growth. *EMBO J*, **31**: 4488-4501.
57. Arango, D., Parihar, A., Villamena, F.A., Wang, L., Freitas, M.A., Grotewold, E., and I. Doseff, A. (2012) Apigenin induces DNA damage through the PKC $\delta$ -dependent activation of ATM and H2AX causing down-regulation of genes involved in cell cycle control and DNA repair. *Biochem Pharmacol*, **84**: 1571-1580.
58. Morohashi, K., Casas, M.I., Ferreyra, M.F., Mejía-Guerra, M.K., Pourcel, L., Yilmaz, A., Feller, A., Carvalho, B., Emiliani, J., Rodriguez, E., Pellegrinet, S., McMullen, M., Casati, P., and Grotewold, E. (2012) A genome-wide regulatory framework identifies maize *Pericarp Color1 (P1)* controlled genes. *Plant Cell*, **24**: 2745-2764.
59. Kong, Q., Pattanaik, S., Feller, A., Werkman, J.R., Chai, C., Wang, Y., Grotewold, E., and Yuan, L. (2012) A regulatory switch enforced by bHLH and ACT domain-mediated dimerizations of the maize transcription factor R. *Proc Natl Acad Sci USA*, **109**: E2091-E2097.
60. Bolduc, N., Yilmaz, A., Mejia-Guerra, M.K., Morohashi, K., O'Connor, D., Grotewold, E. and Hake, S. (2012) Unraveling the KNOTTED1 regulatory network in maize meristems. *Genes & Dev*, **26**: 1685-1690.
61. Rius, S., Grotewold, E., and Casati, P. (2012) Analysis of the *P1* promoter in response to UV-B radiation in allelic variants of high-altitude maize. *BMC Plant Biology*, **12**: 92.
62. Falcone-Ferreyra, M.L., Casas, M.I., Questa, Q., Herrera, L., Deblasio, S., Wang, J., Jackson, D., Grotewold, E., and Casati, P. (2012) Evolution and expression of tandem duplicated maize flavonol synthase genes. *Frontiers Plant Gen & Genom*, **3**: Article 101.
63. Sharma, M., Chai, C., Morohashi, K., Grotewold, E., Snook, M.E., and Chopra, S. (2012) Expression of flavonoid 3'-hydroxylase is controlled by P1 the regulator of 3-deoxyflavonoid biosynthesis in maize. *BMC Plant Biology*, **12**: 196.
64. Cannon, E.K.S., Birkett, S.M., Braun, B.L., Kodavali, S., Jennewein, D.M., Yilmaz, A., Antonescu, V., Antonescu, C., Harper, L.C., Gardiner, J.M., Schaeffer, M.L., Campbell, D.A., Andorf, C.M., Andorf, D., Lisch, D.R., Koch, K.E., McCarty, D., Lawrence, C.J. (2011) POPcorn: an online resource providing access to distributed and diverse maize project data. *Intl J Plant Genomics*, **2011**: ID923035.
65. Vanneste, S., Coppens, F., Lee, E., Donner, T., Xie, A., Van Isterdael, G., Dhondt, S., De Winter, F., De Rybel, B., De Veylder, L., Friml, J., Inze, D., Grotewold, E., Scarpella, E., Sack, F., Beemster, G., Vuylsteke, M. and Beeckman, T. (2011) Developmental regulation of *CYCA2s* contributes to tissue-specific proliferation in *Arabidopsis*. *EMBO J*, **30**: 3430-3441.
66. Machemer, K., Shaiman, O., Salts, Y., Shabtai, S., Sobolev, I., Belausov, E., Grotewold, E., and Barg, R. (2011) MYB factors interplay in differential cell expansion and consequences for tomato fruit development. *Plant J*, **68**: 337-350.
67. Anastasio, A.E., Platt, A., Horton, M., Grotewold, E., Scholl, R., Borevitz, J.O., Nordborg, M., and Bergelson, J. (2011) Source verification of misidentified *Arabidopsis thaliana* accessions. *Plant J*, **67**: 554-566.
68. Siegal-Gaskins, D., Mejia-Guerra, M.K., Smith, G.D., and Grotewold, E. (2011) Emergence of switch-like behavior in a large family of simple biochemical networks. *PLoS Comp Biol*, **7**: e1002039.

69. Yilmaz, A., Mejia-Guerra, M.K., Kurz, K., Liang, X., Welch, L., Grotewold, E. (2011) Arabidopsis Gene Regulatory Information Server, an update. *Nucl Acids Res*, **39**: D1118-1122.
70. Fornale, S., Shi, X., Chai, C., Encina, A., Irar, S., Capellades, M., Fuguet, E., Torres, J-L., Rovira, P., Puigdomenech, P., Rigau, J., Grotewold, E., Gray, J., and Caparros-Ruiz, D. (2010). ZmMYB31 directly represses maize lignin genes and redirects the phenylpropanoid metabolic flux. *Plant J*, **64**: 633-644.
71. Xie, Z., Li, D., Wang, L., Sack, F., and Grotewold, E. (2010). Role of the stomatal development regulators FLP/MYB88 in abiotic stress responses. *Plant J*, **64**: 731-739.
72. Xie, Z., Lee, E., Lucas, J.R., Morohashi, K., Li, D., Murray, J.A.H., Sack, F.D., and Grotewold, E. (2010). Regulation of stomatal lineage cell proliferation by the *Arabidopsis* MYB *four lips* via direct targeting of core cell cycle genes. *Plant Cell* **22**: 2306-2321.
73. Falcone Ferreyra, M., Rius, S., Emiliani, J., Pourcel, L., Feller, A., Morohashi, K., Casati, P., and Grotewold, E. (2010). Cloning and characterization of a UV-B inducible maize flavonol synthase. *Plant J*, **62**: 77-91.
74. The International Brachypodium Initiative. (2010) Genome sequence and analysis of the model grass *Brachypodium distachyon*. *Nature*, **463**: 763-768.
75. Pourcel, L. Irani, NG, Lu, Y., Riedl, K., Schwartz, S., and Grotewold, E. (2010) The formation of anthocyanic vacuolar inclusions in *Arabidopsis thaliana* and implications for the sequestration of anthocyanin pigments. *Molecular Plant*, **3**: 78-90.
76. Lichtenberg, J., Yilmaz, A., Welch, J.D., Kurz, K., Liang, X., Drews, F., Ecker, K., Lee, S.S., Geisler, M., Grotewold E., and Welch, L.R. (2009) The word landscape of the non-coding segments of the *Arabidopsis thaliana* genome. *BMC Genomics*, **10**: 463.
77. Siegal-Gaskins, D., Grotewold, E., and Smith, G.D. (2009) The capacity for multistability in small gene regulatory networks. *BMC Syst Biol*, **3**: 96.
78. Gray, J., Bevan, M., Brutnell, T., Buell, R., Cone, K., Hake, S., Jackson, D., Kellogg, E.A., Lawrence, C., McCouch, S., Mockler, T., Moose, S.P., Paterson, A., Peterson, T., Rokshar, D., Souza, G.M., Springer, N., Stein, N., Timmermans, M.C., Wang, G.-L., and Grotewold, E. (2009) A recommendation for naming transcription factor proteins in the grasses. *Plant Physiol*, **149**: 4-6.
79. Morohashi, K. and Grotewold, E. (2009) A systems approach reveals regulatory circuitry for *Arabidopsis* trichome initiation by the GL3 and GL1 selectors. *PLoS Genetics*, **5**: e1000396.
80. Yilmaz, A., Nishiyama, M.Y., Garcia-Fuentes, B., Souza, G.M., Janies, D., Gray J. and Grotewold, E. (2009) GRASSIUS: A platform for comparative regulatory genomics across the grasses. *Plant Physiol*, **149**: 171-180.
81. Xie, Z., and Grotewold, E. (2008) Serial ChIP as a tool to investigate the co-localization or exclusion of proteins on plant genes. *Plant Methods*, **4**: 25.
82. Zhao, M., Morohashi, K., Hatlestad, G., Grotewold, E. and Lloyd, A. (2008) The TTG1-bHLH-MYB complex controls trichome cell fate and patterning through direct targeting of regulatory loci. *Development*, **135**: 1991-1999.
83. Poustka, F., Irani, N.G., Feller, A., Lu, Y., Pourcel, L., Frame, K., Grotewold, E. (2007) A trafficking pathway for anthocyanins overlaps with the endoplasmic reticulum-to-vacuole protein sorting route in *Arabidopsis* and contributes to the formation of vacuolar inclusions. *Plant Physiol*, **145**: 1323-1335.
84. Hernandez, J.M., Feller, A., Morohashi, K., Frame, K. and Grotewold, E. (2007) The bHLH domain of maize R links transcriptional regulation and histone modifications by recruitment of an EMSY-related factor. *Proc Natl Acad Sci USA*, **104**: 17222-17227.
85. Morohashi, K., Zhao, M., Yang, M., Read, B., Lloyd, A., Lamb, R., and Grotewold, E. (2007) Participation of the *Arabidopsis* bHLH factor GL3 in trichome initiation regulatory events. *Plant Physiol*, **145**: 736-746.
86. Nicholas, C., Batra, S., Vargo, M.A., Voss, O.H., Gavrilin, M., Wewers, M.D., Guttdridge, D.C., Grotewold, E., and Doseff, A.I. (2007) Apigenin blocks lipopolysaccharide-induced lethality *in vivo*

- and pro-inflammatory cytokines expression by inactivating NF- $\kappa$ B through the suppression of p65 phosphorylation. *J Immunol*, **179**: 7121-7127.
87. Heine, G.F., Malik, V., Dias, A.P., and Grotewold, E. (2007) Expression and molecular characterization of ZmMYB-IF35 and related R2R3-MYB transcription factors. *Mol Biotech*, **37**: 155-164.
  88. Serpa, V., Vernal, J., Lamattina, L., Grotewold, E., Cassia, R., Terenzi, H. (2007) Inhibition of AtMYB2 DNA-binding by nitric oxide involves cysteine S-nitrosylation. *Biochem Biophys Res Comm*, **361**: 1048-1053.
  89. Cheng, L., Xu, Y., Grotewold, E., Jin, Z., Wu, F., Fu, C., and Zhao, D. (2007) Characterization of anthocyanidin synthase (ANS) gene and anthocyanidin in rare medicinal plant - *Saussurea medusa*. *Plant Cell Tiss Organ Cult*, **89**: 63-73.
  90. Feller, A., Hernandez, J.M., and Grotewold, E. (2006) An ACT domain participates in the dimerization of several plant bHLH transcription factors. *J Biol Chem*, **281**: 28964 - 28974.
  91. Vargo, M.A., Voss, O.H., Poustka, F., Cardounel, A.J., Grotewold, E., and Doseff, A.I. (2006) Apigenin-induced-apoptosis is mediated by the activation of PKC $\delta$  and caspases in leukemia cells. *Biochem Pharmacol*, **72**: 681-692.
  92. Palaniswamy, K., James, S., Sun, H., Lamb, R., Davuluri, R.V. and Grotewold, E. (2006) AGRIS and AtRegNet: A platform to link *cis*-regulatory elements and transcription factors into regulatory networks. *Plant Physiol*, **140**: 818-829.
  93. Lu, Y., Irani, N.G., and Grotewold, E. (2005) Covalent attachment of the plant natural product naringenin to small glass and ceramic beads. *BMC Chemical Biology*, **5**: 3.
  94. Jin, Z., Grotewold, E., Qu, W., Fu, G., and Zhao, D. (2005) Cloning and characterization of a flavanone 3-hydroxylase gene from *Saussurea medusa*. *DNA Sequence*, **16**: 121-129.
  95. Irani, N.G., and Grotewold, E. (2005) Light-induced morphological alteration in anthocyanin-accumulating vacuoles of maize cells. *BMC Plant Biology*, **5**: 7.
  96. Molina, C., and Grotewold, E. (2005) Genome-wide analysis of *Arabidopsis* core promoters. *BMC Genomics*, **6**: 25.
  97. Barg, R., Sobolev, I., Eilon, T., Gur, A., Chmelnitsky, I., Shabtai, S., Grotewold, E. and Salts, Y. (2005) The tomato early fruit specific gene *Lefsm1* defines a novel class of plant-specific SANT/MYB domain proteins. *Planta*, **221**: 197-211.
  98. Grotewold, E. (2005) Plant metabolic diversity: A regulatory perspective. *Trends Plant Sci*, **10**: 57-62.
  99. Hernandez, J., Heine, G., Irani, N.G., Feller, A., Kim, M.-G., Matulnik, T., Chandler, V.L., and Grotewold, E. (2004) Different mechanisms participate in the R-dependent activity of the R2R3 MYB transcription factor C1. *J Biol Chem*, **279**: 48205-48213.
  100. Heine, G.F., Hernandez, J.M., and Grotewold, E. (2004) Two cysteines in plant R2R3 MYB domains participate in REDOX-dependent DNA binding. *J Biol Chem*, **279**: 37878-37885.
  101. Rangarajan, S., Raj, M.L.S., Hernandez, J.M., Grotewold, E., Gopalan, V. (2004) RnaseP as a tool for disrupting gene expression in maize cells. *Biochem. J*, **380**: 611-616.
  102. Henry, I.M., Wilkinson, M.D., Hernandez, J.M., Schwarz-Sommer, Z., Grotewold, E., and Mandoli, D.F. (2004) Comparison of ESTs from juvenile and adult phases of the giant unicellular green alga *Acetabularia acetabulum*. *BMC Plant Biology*, **4**: 3.
  103. Lin, Y., Irani, N.G., and Grotewold, E. (2003) Sub-cellular trafficking of phytochemicals explored using auto-fluorescent compounds in maize cells. *BMC Plant Biology*, **3**: 10.
  104. Davuluri, R.V., Sun, H., Palaniswamy, S.K., Matthews, N., Molina, C., Kurtz, M., and Grotewold, E. (2003) AGRIS: Arabidopsis Gene Regulatory Information Server, an information resource of *Arabidopsis cis*-regulatory elements and transcription factors. *BMC Bioinformatics*, **4**: 25 - 35.
  105. Dias, A.P., Braun, E.L., McMullen, M.D., and Grotewold, E. (2003) Recently duplicated maize *R2R3 Myb* genes provide evidence for distinct mechanisms of evolutionary divergence after duplication. *Plant Physiol*, **131**: 610-620.

106. Dias, A.P., and Grotewold, E. (2003) Manipulating the accumulation of phenolics in maize cultured cells using transcription factors. *Biochem Engineering J*, **14**: 207-216.
107. Pooma, W., Gersos, C., and Grotewold, E. (2002) Transposon insertions in the promoter of the *Zea mays al* gene differentially affect transcription by the Myb factors P and C1. *Genetics*, **161**: 793-801.
108. Dong, X., Braun, E.L., and Grotewold, E. (2001) Functional conservation of plant secondary metabolic enzymes revealed by complementation of *Arabidopsis* flavonoid mutants with maize genes. *Plant Physiol*, **127**: 46-57.
109. Braun, E.L., and Grotewold, E. (2001) Fungal Zuotin proteins evolved from MIDA1-like factors by lineage-specific loss of MYB domains. *Mol Biol & Evol*, **18**: 1401-1412.
110. Grotewold, E., Sainz, M.B., Tagliani, L., Hernandez, J.M., Bowen, B., and Chandler, V.L. (2000) Identification of the residues in the Myb domain of C1 that provide the specificity of the interaction with the bHLH cofactor R. *Proc Natl Acad Sci USA*, **97**: 13579-13584.
111. Rabinowicz, P.D., and Grotewold, E. (2000) A novel reverse-genetic approach (SIMF) identifies *Mutator* insertions in new *Myb* genes. *Planta*, **211**: 887-893.
112. Braun, E.L., and Grotewold, E. (1999) Newly discovered plant *c-myb*-like genes rewrite the evolution of the plant *myb* gene family. *Plant Physiol*, **121**: 21-24.
113. Rabinowicz, P. D., E. L. Braun., A. D. Wolfe, B. Bowen, and E. Grotewold. (1999) Maize *R2R3 Myb* genes: Sequence analysis reveals amplification in higher plants. *Genetics*, **153**: 427-444.
114. Grotewold, E., Chamberlain, M., St. Claire, G., Swenson, J., Siame, B.A., Butler, L.G., Snook, M. and Bowen, B. (1998) Engineering secondary metabolism in maize cells by ectopic expression of transcription factors. *Plant Cell*, **10**: 721-740. (Featured in This Issue commentary)
115. van Aalten, D.M.F., Grotewold, E. and Joshua-Tor, L. (1998) Essential dynamics from NMR structures: dynamic properties of the Myb DNA-binding domain and a hinge-bending enhancing variant. *Methods - A companion to Methods in Enzymology*, **14**: 318-328.
116. Sainz, M., Grotewold, E. and Chandler, V. (1997) Evidence for direct activation of an anthocyanin promoter by the maize C1 protein and comparison of DNA-binding by related Myb-domain proteins. *Plant Cell*, **9**: 611-625.
117. Williams, C.E. and Grotewold, E. (1997) Differences between plant and animal Myb domains are fundamental for DNA-binding activity and chimeric Myb domains have novel DNA-binding specificities. *J Biol Chem*, **272**: 563-571.
118. Rabinowicz, P.D., Roberts, C., and Grotewold, E. (1996). A gene encoding a putative Mixta-homologous Myb-domain protein from *Arabidopsis thaliana*. *Plant Physiol*, **112**: 863.
119. Grotewold, E., Drummond, B., Bowen, B. and Peterson, T. (1994). The Myb-homologous gene controls phlobaphene pigmentation in maize floral organs by directly activating a flavonoid biosynthetic gene subset. *Cell*, **76**: 543-553.
120. Grotewold, E. and Peterson, T. (1994). Isolation and characterization of a maize gene encoding chalcone flavanone isomerase. *Mol Gen Genet*, **242**: 1-8.
121. Athma, P., Grotewold, E. and Peterson, T. (1992). Insertional mutagenesis of the maize *P* gene by intragenic transposition of *Ac*. *Genetics*, **131**: 199-209.
122. Grotewold, E., Athma, P. and Peterson, T. (1991). A possible hot spot for *Ac* insertion in the maize *P* gene. *Mol Gen Genet*, **230**: 329-331.
123. Grotewold, E., Athma, P. and Peterson, T. (1991). Alternatively spliced products of the maize *P* gene encode proteins with homology to the DNA-binding domain of Myb-like transcription factors. *Proc Natl Acad Sci USA*, **88**: 4587-4591.
124. Taccioli, G.E., Grotewold, E., Aisemberg, G.O. and Judewicz, N.D. (1991). The cDNA sequence and expression of an ubiquitin-tail gene fusion in *Neurospora crassa*. *Gene*, **102**: 133-137.
125. Grotewold, E., Aisemberg, G.O., Taccioli, G.E. and Judewicz, N.D. (1990). Genes responsive to the alteration of polyamine biosynthesis in *Neurospora crassa*. *Cell Biology International Reports*, **14**: 69-77.

126. Grotewold, E., Taccioli, G.E., Aisemberg, G.O. and Judewicz, N.D. (1989). Early response and induced tolerance to cycloheximide in *Neurospora crassa*. *Current Genetics*, **15**: 429-434.
127. Aisemberg, G.O., Grotewold, E., Taccioli, G.E. and Judewicz, N.D. (1989). A major transcript in the response of *Neurospora crassa* to protein synthesis inhibition by cycloheximide. *Experimental Mycol.* **13**: 121-128.
128. Attar, R.M., Grotewold, E., Taccioli, G.E., Aisemberg, G.O., Torres, H.N. and Judewicz, N.D. (1989). A cycloheximide inducible gene of *Neurospora crassa* belongs to the cytochrome P-450 superfamily. *Nucl Acid Res*, **17**: 7535-7536.
129. Taccioli, G.E., Grotewold, E., Aisemberg, G.O. and Judewicz, N.D. (1989). Ubiquitin expression in *Neurospora crassa*: cloning and sequencing of a polyubiquitin gene. *Nucl Acid Res*, **17**: 6153-6164.
130. Grotewold, E., Taccioli, G.E., Aisemberg, G.O. and Judewicz, N.D. (1988). A single-step purification of an exocellular fungal laccase. *MIRCEN J*, **4**: 357-363.
131. Aisemberg, G.O., Taccioli, G.E., Grotewold, E. and Judewicz, N.D. (1987). Differential gene expression promoted by cycloheximide in *Neurospora crassa*. *Experimental Mycol*, **11**: 122-127.

### REVIEWS (PEER REVIEWED)

132. Marathe, S.K., Grotewold, E., and Otegui, M. (2024) Should I stay or should I go? Trafficking of plant extra-nuclear transcription factors. *Plant Cell*, In Press.
133. Li, Y., Grotewold, E., and Dudareva, N. (2023) Enough is enough: Feedback control of specialized metabolism. *Trends Plant Sci*, In Press.
134. Schmitz, R.J., Grotewold, E., and Stam, M. (2022) *Cis*-regulatory sequences in plants: their importance, discovery and future challenges. *Plant Cell*, **34**: 718-741. <https://doi.org/10.1093/plcell/koab281>.
135. Jiang, N., Dillon, F.M., Silva, A., Gomez-Cano, L., and Grotewold, E. (2021) Rhamnose in plants – From biosynthesis to diverse functions. *Plant Sci*, **302**: 110687.
136. Springer, N., de León, N., and Grotewold, E. (2019) Challenges of translating gene regulatory information into agronomic improvements. *Trends Plant Sci*, **24**: 1075-1082 [Includes the cover of the issue].
137. McCluskey, K., Boundy-Mills, K., Dye, G., Ehmke, E., Gunell, G., Kiaris, H., Polihronakis Richmond, M., Yoder, A.D., Zeigler, D.R., Zehr, S., and Grotewold, E. (2017) Impact of USA public living collections and challenges to meet evolving community needs. *eLIFE*, **6**: e24611.
138. Francis, D., Finer, J., and Grotewold, E. (2017) Challenges and opportunities for improving food quality and nutrition through plant biotechnology. *Curr Opin Biotech*, **44**: 124-129.
139. Brkljacic J, and Grotewold E. (2017) Combinatorial control of plant gene expression. *BBA - Gene Regulatory Mechanisms*, **1860**: 31-40.
140. Jiang, N., Doseff, A.I. and Grotewold, E. (2016) Flavones: From biosynthesis to health benefits. *Plants*, **5**: E27.
141. Provar, N., Alonso, J., Assmann, S., Bergmann, D., Brady, S., Brkljacic, J., Browse, J., Chapple, J., Colot, V., Cutler, S., Dangl, J., Ehrhardt, D., Friesner, J., Frommer, W., Grotewold, E., Meyerowitz, E., Nemhauser, J., Nordborg, M., Pikaard, C., Shanklin, J., Somerville, C., Somerville, S., Stitt, M., Torii, K., Waese, J., Wagner D., and McCourt, P. (2016) 50 years of *Arabidopsis* research: highlights and future directions. *New Phytol*, **209**: 921-944.
142. Yuan, L., and Grotewold, E. (2015) Metabolic engineering to enhance the value of plants as green factories. *Metabolic Eng.* **27**: 83-91.
143. Mejia-Guerra, M.K., Pomeranz, M., Morohashi, K., and Grotewold, E. (2012) From plant gene regulatory grids to network dynamics. *BBA - Gene Regulatory Mechanisms*, **1819**: 454-465.
144. Gray, J., Caparrós, D., and Grotewold, E. (2012). Grass phenylpropanoids: Regulate before using! *Plant Sci*, **184**: 112-120.
145. Brkljacic, J., Grotewold, E., Scholl, R., Mockler, T., Garvin, D.F., Vain, P., Brutnell, T., Sibout, R., Bevan, M., Budak, M., Caicedo, A.L., Gao, C., Gu, Y., Hazen, S.P., Holt III, B.F., Hong, S.-Y., Jordan, M., Manzaneda, A.J., Mitchell-Olds, T., Mochida, K., Mur, L.A.J., Park, C.-M., Sedbrook,

- J., Watt, M., Zheng, S.J., and Vogel, J.P. (2011) Brachypodium as a model for the grasses: Today and the future. *Plant Physiol*, **157**: 3-13.
146. Feller, A., Machemer, K., Braun, E.L., and Grotewold, E. (2011) Evolutionary and comparative analysis of MYB and bHLH plant transcription factors. *Plant J*, **66**: 94-116.
147. Dubos, C., Stracke, R., Grotewold, E., Weisshaar, B., Martin, C., and Lepiniec, L. (2010) MYB transcription factors in *Arabidopsis*. *Trends Plant Sci*, **15**: 573-581.
148. Grotewold, E. and Davies, K. (2008) Trafficking and sequestration of anthocyanins. *Nat Prod Comm*, **3**: 1251-1258.
149. Grotewold, E. (2008) Transcription factors for predictive plant metabolic engineering: Are we there yet? *Curr Opin Biotech*, **19**: 138-144.
150. Grotewold, E. (2006) The genetics and biochemistry of flower pigments. *Ann Rev Plant Biol*, **57**: 761-780.
151. Taylor, L. P., and Grotewold, E. (2005) Flavonoids as developmental regulators *Curr Opin Plant Biol*, **8**: 317-323.
152. Grotewold, E. (2004) The challenges of moving chemicals within and out of cells: Insights into the transport of plant natural products. *Planta*, **219**: 906-909.
153. Walker, T.S., Bais, H.P., Grotewold, E. and Vivanco, J.M. (2003) Root exudation and rhizosphere biology. *Plant Physiol*, **132**: 44-51.
154. Mol, J., Grotewold, E., and Koes, R. (1998) How genes paint flowers and seeds. *Trends Plant Sci*, **3**: 212-217.

#### INVITED PUBLICATIONS, EDITORIALS, METHODS, AND BOOK CHAPTERS

155. Gavgani, H.N., Grotewold, E., and Gray, J. (2023) Methodology for constructing a knowledgebase for plant gene regulation information. *Methods Mol Biol* **2698**: 277-300.
156. Calhoun, C.S., Crist, D.K., Knee, E.M., Price, C.G., Lindsey, B.E., Castrejon, D.M., Nagy, E., Mann, J.W., Miller, J.A., Grotewold, E., Slotkin, R.K., and Brkljacic, J. (2019) The Genetics Resources of *Arabidopsis thaliana* - The Arabidopsis Biological Resource Center. In: The Biological Resources of Model Organisms. Robert L. Jarret and Kevin McCluskey (eds). CRC Press. Pp 13 – 34.
157. Mejia-Guerra, M.K., Li, W., Doseff, A.I. and Grotewold, E. (2018) Genome-wide TSS identification in maize. *Methods Mol Biol*. **1830**, 239-256.
158. Chanoca, A., Burkel, B., Grotewold, E., Eliceiri, K.W., and Otegui, M.S. (2018) Imaging vacuolar anthocyanins with fluorescence lifetime microscopy (FLIM). *Methods Mol Biol* **1789**, 131-141.
159. Roxey, D., Burnett, A., and Grotewold, E. (2017) Building teams in academia for synergy in interdisciplinary research. In: Pathway to Collaboration. J. Fowler, R. Holowinsky, A. Channell, O.J. Crocomo, J. P. Kreier and W.R. Sharp (eds). CreateSpace Independent Publishing Platform. Volume 2, pp 498 – 529.
160. Friesner, J., Assmann, S., Bastow, R.M. Bailey-Serres, J., Beynon, J., Brendel, V., Buell, R., Buksch, A., Dinneny, J., Doherty, C., Eveland, C., Gehan, M., Gonzalez, M, Grotewold, E., Kramer, U., Markelz, C., Megraw, M., Meyers, B.C., Murray, J., Provart, N.J., Rhee, S., Smith, R., Spalding, E., Taylor, C., Teal, T., Torii, K., Town, C., Vaughn, M., Vierstra, R., Ware, D., Wilkins, O., Williams, C., and Brady, S.M. (2017) The next generation of training for Arabidopsis researchers: Bioinformatics and quantitative biology. *Plant Physiol*, **175**: 1499-1509.
161. Feller, A., Yuan, L., and Grotewold, E. (2017) The BIF Domain in plant bHLH proteins is an ACT-like domain. *Plant Cell*, **29**: 1800-1802.
162. Mukundi, E., Gomez-Cano, F., Ouma, W.Z., and Grotewold, E. (2017) Design of knowledge bases for plant gene regulatory networks. *Methods Mol Biol*, **1629**: 207-223.
163. Springer, N.M., and Grotewold, E. (2017) News from the plant world: Listening to transcription. *BBA - Gene Regulatory Mechanisms*, **1860**: 1-2.
164. Grotewold, E. (2016) Flavonols drive plant microevolution. *Nature Genet*, **48**:112-113.

165. Yang, F., Ouma, W.Z., Li, W., Doseff, A.I., and Grotewold, E. (2016) Establishing the architecture of plant gene regulatory networks. *Meth. Enzymol*, **576**: 251-304.
166. Parihar, A., Grotewold, E., and Doseff, A.I. (2015) Flavonoids Dietetics: Mechanisms and emerging roles of plant nutraceuticals. In: *Pigments in Fruits and Vegetables*. C. Chen (ed.). Springer Science+Business Media New York. pp 93-126.
167. Rivero, L., Scholl, R., Holomuzki, N., Crist, D., Grotewold, E., and Brkljacic, J. (2014) Handling *Arabidopsis* plants: growth, preservation of seeds, transformation, and genetic crosses. *Methods Mol Biol*, **1062**: 3-25.
168. Li, D., Dreher, K., Knee, E., Brkljacic, J., Grotewold, E., Berardini, T.Z., Lamesch, P., Garcia-Hernandez, M., Reiser, L., and Huala, E. (2014) *Arabidopsis* database and stock resources. *Methods Mol Biol*, **1062**: 65-96.
169. Caccamo, M., and Grotewold, E. (2013) Turning over a new leaf in plant genomics. *Genome Biol*, **14**: 403.
170. International Arabidopsis Informatics Consortium. (2012) Taking the next step: Building an Arabidopsis Information Portal. *Plant Cell*, **24**: 2248-2256.
171. Chai, C., Xie, Z., and Grotewold, E. (2011) SELEX (Systematic Evolution of Ligands by Exponential Enrichment), as a Powerful Tool for Deciphering the Protein-DNA Interaction Space. *Methods Mol Biol*, **754**: 249-258.
172. Lichtenberg, J., Yilmaz, A., Kurz, K., Liang, X., Nelson, C., Bitterman, T., Stockinger, E., Grotewold, E., Welch, L.R. (2011) Encyclopedias of DNA elements for plant genomes. In *Advances in Genomic Sequence Analysis and Pattern Discovery*. Elnitski, L., Piontkivska, H., Welch, L. (ed.). Hackensack, NJ: World Scientific Publishing Company Volumen 7, pp. 159-178.
173. Knee, E.M., Rivero L., Crist, D., Grotewold, E., and Scholl, R. (2011) Germplasm and molecular resources. In: I. Bancroft and R. Schmidt (eds) *Genetics and Genomics of the Brassicaceae*. Plant Genetics and Genomics: Crops and Models. Springer, New York. pp 437-468.
174. Gray, J., and Grotewold, E. (2011) Transcription factors, gene regulatory networks and agronomic traits. In *Sustainable Agriculture and New Biotechnologies*. N. Benkeblia (ed.). CRC Press, Boca Raton, FL. Pp 65-94.
175. International Arabidopsis Informatics Consortium. (2010) An international bioinformatics infrastructure to underpin the *Arabidopsis* community. *Plant Cell*, **22**: 1-7.
176. Yilmaz, A. and Grotewold, E. (2010) Components and mechanisms of regulation of gene expression. *Methods Mol Biol*, **674**: 23-32.
177. Pourcel, L., and Grotewold, E. (2009) Phytochemicals, plant development and growth – Who is in control? In *Plant-Derived Natural Products: Synthesis, Function and Application*. Osbourn, A., and Lanzotti, V. (eds). Springer, New York, NY. Pp. 269-279.
178. Grotewold, E. and Gray, J. (2009) Maize transcription factors. In *The Maize Handbook*. Hake, S. and Bennetzen, J. (ed). Springer, New York, NY. Vol 2 pp. 693 - 714.
179. Morohashi, K., Xie, Z., and Grotewold, E. (2009) Gene-specific and genome-wide ChIP approaches to study plant transcriptional networks. *Methods Mol Biol* **553**: 3-12.
180. Grotewold, E. and Springer, N. (2009) Decoding the transcriptional hardwiring of the plant genome. In *Annual Plant Reviews: Systems Biology*. Coruzzi, G. and Gutierrez, R. (eds). Blackwell Publishing. **35**: 196-227.
181. Chappell, J. and Grotewold, E. (2008) Plant biotechnology -- predictive, green and quantitative. *Curr Opin Biotechnol*, **19**:129-130.
182. Quattrocchio, F., Baudry, A., Lepiniec, L., and Grotewold, E. (2006) The regulation of flavonoid biosynthesis. In *The Science of Flavonoids*. Grotewold, E. (ed.) Springer, New York, NY. pp. 97-122.
183. Wurtzel, E.T., and Grotewold, E. (2006) Plant Metabolic Engineering. In *Encyclopedia of Chemical Processing*. Taylor & Francis, pp. 2191-2200
184. Onyilagha, J., and Grotewold, E. (2004) The biology and structural distribution of surface flavonoids. *Recent Res Devel Plant Sci*, **2**: 53-71

185. Pooma, W., and Grotewold, E. (2003) Transposons and the regulation of plant gene expression. *Adv Plant Physiol*, **6**: 37-58.
186. Dias, A., Brown, J., Bonello, P., and Grotewold, E. (2003) Metabolite profiling as a functional genomics tool. In *Plant Functional Genomics: Methods & Protocols*. Grotewold, E. (ed) Humana Press, NJ. pp. 415-426.
187. Irani, N., Hernandez, J.M., and Grotewold, E. (2003) Regulation of anthocyanin pigmentation. *Recent Adv Phytochem*, **37**: 59-78.
188. Grotewold, E. Subcellular trafficking of phytochemicals. (2001) *Recent Res Dev Plant Physiol*, **2**: 31-48.
189. Braun, E.L., Matulnik, T., Dias, A., and Grotewold, E. (2001) Transcription factors and metabolic engineering: Novel applications for ancient tools. *Recent Adv Phytochem*, **35**: 79-109.

## PROCEEDINGS AND REPORTS

190. Chacko, J.V., Tsuchida, M.A., Lee, H.-N., Grotewold, E., Otegui, M.S., and Elicieri, K. (2021) Autofluorescence anisotropy-based investigation of cellular heterogeneity and metabolism. Multiphoton Microscopy in the Biomedical Sciences XXI, 11648: 116480M.
191. Gomez-Cano, L., Yang, F. and Grotewold, E. (2019). Isolation and efficient maize protoplast transformation. *Bio-protocol*: e3346.
192. Gray, J., Burdo, B., Goetting-Minesky, M. P., Wittler, B., Hunt, M., Li, T., Velliquette, D., Thomas, J., Agarwal, T., Key, K., Gentzel, I., Brito, M. d., Mejía-Guerra, M. K., Connolly, L. N., Qaisi, D., Li, W., Casas, M. I., Doseff, A. I. and Grotewold, E. (2015). Protocol for the generation of a transcription factor open reading frame collection (TFome). *Bio-protocol* 5: e1547.
193. Grotewold, E., and Auer, H. (2010) The DNA-Proteome: Recent advances towards establishing the protein-DNA interaction space. *Intl J Comp Biosci*, **1**:1-3.
194. Yilmaz, A., Davuluri, R., Palaniswamy, S., and Grotewold, E. (2009) Discovery of regulatory networks in plants by linking promoter and transcription factor databases. *Proceedings of the Ohio Collaborative Conference on Bioinformatics*, IEEE Computer Society Press, June 2009, pp. 61-64.
195. Lichtenberg, J., Alam, M., Bitterman, T., Drews, F., Ecker, K., Elnitski, L., Evans, S., Grotewold, E., Gu, G., Jacox, E., Kurz, K., Lee, S.S., Liang, X., Majmudar, P.M., Morris, P., Nelson, C., Stockinger, E., Welch, J.D., Wyatt, S., Yilmaz, A., and Welch, L.R. Construction of genomic regulatory encyclopedias: Strategies and case studies,” *Proceedings of the Ohio Collaborative Conference on Bioinformatics*, IEEE Computer Society Press, June 2009, pp. 65-70.
196. Smialek, J.L., Hernandez, J.M., and Grotewold, E. (2001). The C-terminal domain of the maize *pl* gene has a putative activation domain. *Maize Genet Coop Newsl*, **75**: 18.
197. Lin, Y., Dong, X., and Grotewold, E. (2000). Preliminary analysis of green fluorescent compounds induced by ectopic expression of the *P* gene. *Maize Genet Coop Newsl*, **74**: 24-26.
198. Hernandez, J.M., Pizzirusso, M., and Grotewold, E. (2000). The maize *MP1* gene encodes a WD-protein similar to An11 and TTG. *Maize Genet Coop Newsl*, **74**: 24.
199. Braun, E.L., and Grotewold, E. (1999). Diversification of the *R2R3 Myb* gene family and the segmental allotetraploid origin of the maize genome. *Maize Genet. Coop. Newsl*. **73**: 26-27.
200. Grotewold, E. (1999). Ectopic expression of P and R+C1 induce few new proteins. *Maize Genet Coop Newsl*, **73**: 23-24.
201. Wang, H., and Grotewold, E. (1999). Aleurone and pericarp pigmentation in the *al-mum2* allele. *Maize Genet Coop Newsl*, **73**: 24-25.
202. Rabinowicz, P.D., Ma, H., and Grotewold, E. (1997). Consequences of the ectopic expression of the Myb-domain protein P. *Maize Genet Coop Newsl*, **71**: 21-22.
203. Grotewold, E. (1995). Does P protein require a partner, as C1 protein does? *Maize Genet Coop Newsl*, **69**: 32.
204. Grotewold, E., Peterson, T., Drummond, B., Roth, B. and Bowen, B. (1992). Differential regulation of flavonoid biosynthetic genes by the *PI* gene. *Maize Genet Coop Newsl*, **66**: 33-34.

205. Grotewold, E. and Peterson, T. (1991). Cloning of a *PI*-regulated chalcone-flavanone isomerase gene from maize. *Maize Genet Coop Newsl*, **65**: 46-47.
206. Grotewold, E. and Peterson, T. (1990). Isolation of cDNA clones homologous to the *P*-gene flanking regions. *Maize Genet Coop Newsl*, **64**: 37.

### BOOKS AUTHORED

Grotewold, E., Chappell, J., and Kellogg, E. Plant Genes, Genomes and Genetics. (2015) John Wiley & Sons, Ltd, Chichester, West Sussex, PO19 8SQ, UK; and American Society of Plant Biologist (ASPB).

### BOOKS EDITED

Grotewold, E. (Editor) The Science of Flavonoids. (2006 & 2008) Springer, New York, NY.

Grotewold, E. (Editor) Plant Functional Genomics: Methods & Protocols. (2003) Humana Press, Totowa, NJ.

### PATENTS AND INVENTIONS

1. Transgenic plants with altered levels of phenolic compounds. Pat. No. 7,154,023.
2. Transgenic turfgrasses which signal exposure to chemicals and stress conditions. Pat. No. 6,709,867
3. Inhibition of monocyte survival, differentiation, or proliferation. Application No. PCT/US06/020905
4. Synthetic Jet Actuator. Provisional No. 62/150,534.
5. Transcription factor genes associated with high lipid production in *Camelina sativa* seeds.” MSU disclosure TEC2019-0154

### GRANT SUPPORT (\*indicates non-cost extension included)

#### **Current**

Michigan Translational Research & Commercialization (MTRAC) Starter 12/01/23 – 08/31/24  
 PI: Grotewold  
 Title: Metabolic Engineering of Camelina Seed Oil Using Transcription Factors  
 Total Funding: \$33,900

AgSpectrum Company 08/01/23 – 07/31/25  
 PI: Thompson, co-PIs: Lundquist & Grotewold  
 Title: Predicting maize hybrid yield response to nitrogen  
 Total Funding: \$374,997

DOE-BER DE-SC0022987  
 PI: Grotewold, co-PI: Edger 9/15/22 – 9/14/25  
 Title: A Systems Framework to Enhance the Potential of Camelina as Oilseed Crop  
 Total Funding: \$2,071,720

NIFA 2022-67013-37079  
 PI: Thompson, co-PIs: Grotewold, Chilvers 5/1/22 – 4/30/25  
 Title: Great Lakes Tar Spot Initiative II: Elucidating Mechanisms of Resistance  
 Total Funding: \$590,768

NIFA 2022-67013-36388  
 PI: Grotewold 01/15/22 – 01/14/25  
 Title: Biosynthesis and Regulation of Insecticidal and Nutritional Maize Flavones  
 Total Funding: \$648,000

DOE-BER DE-SC0020325

PI: Alonso, co-PIs: Grotewold, Chapman

09/15/19 – 09/14/24\*

Title: Functional Analysis of Candidate Genes Involved in Oil Storage and Stability in Pennycress

Total Funding: \$2,388,847

**Completed**

NSF IOS-1733633

PI: Grotewold, co-PIs: Doseff, DeLeon, Gray, Springer

02/1/18 – 01/31/24\*

Title: RESEARCH-PGR: Elucidating Maize Gene Regulatory Networks to Accelerate Translational Genomics

Total Funding: \$4,884,153

AgSpectrum Company

07/01/20 – 12/31/23\*

PI: Lundquist, co-PIs: Thompson & Grotewold

Title: Adaptive biochemical and physiological responses of maize hybrid lines to managed variables under abiotic stress

Total Funding: \$589,200

NSF DGE-1828149

PI: Shiu, co-PIs: Buell, Cichy, Grotewold, O'Shea

09/01/18 – 08/31/23

Title: NRT-HDR: Leveraging Computational and Data Science to Address Grand Challenges in Plant Biology

Total Funding: \$2,999,967

DOE DE-SC0018269

09/15/17 – 09/14/23\*

PI: Schnell, co-PIs: Grotewold/Sachar-Hill/Snell/Sederoff (became PI 1/22 because Dr. Schnell passed away)

Title: A Systems Approach to Increasing Carbon Flux to Seed Oil for Biofuels and Bioproducts Production in *Camelina sativa*

Total Funding: \$10,206,641

DOE-BER DE-SC0019233

09/01/16 – 08/31/21

PI: Alonso, co-PIs: Shah & Grotewold

Title: Development of Resources and Tools to Improve Oil Content and Quality in Pennycress

Total Funding: \$1,165,226

NIFA 2017-07240

PI: Grotewold

02/1/18 – 01/31/21

Title: Engineering the Pathways for Insecticidal and Nutritional Maize Flavones

Total Funding: \$499,031

BARD IS-5010-17

12/01/17 – 11/31/20

PIs: Grotewold & Arazi

Title: Improving Fleshy Fruit Set by Dissecting the AGL6 Regulatory Pathway

Total Funding: \$310,000

NIFA 2015-67017-23187

2/01/15-1/31/19

PI: Doseff; co-PIs: Grotewold, E., Schwartz, S.

Title: Anti-Inflammatory Mechanisms of Plant Flavones in Whole Food Settings

Total funding: \$500,000

NSF MCB-1513807 (MCB-1822343 after transfer to MSU) PI: Grotewold Title: Modulation of Plant bHLH Function by Small Molecules Total funding: \$810,000	08/01/15 – 07/31/19
NIFA 2015-67013-22810 PI: Grotewold Title: Elucidating the Pathway for Insecticidal and Nutritional Maize Flavones Total funding: \$490,000	02/01/15 – 08/15/17
ASPB PI: Grotewold Title: Plant solutions for global problems: Bringing plant science to life through interactive videoconferencing Total funding: \$29,409	9/01/16 – 8/31/17
NSF DBI-1561210 PI: Grotewold, co-PI: Brkljacic Title: CSBR: Living stocks: Enhancing the Quality and Efficiency of the Arabidopsis Biological Resource Center Total funding: \$499,540	04/15/16 – 03/31/19
NSF IIP-1362092 PI: Grotewold, co-PI: Parquette Title: Planning Grant: I/UCRC for Sustainable Use of Greenhouse Gases Total funding: \$16,105	03/23/14 – 01/01/16
NSF IOS-1125620 PI: Grotewold, co-PI: Gray & Doseff Title: Systems Approaches to Identify Gene Regulatory Networks in the Grasses Total funding: \$4,234,908	01/15/12 – 01/14/16
NSF MCB-1048847 PI: Grotewold, co-PI: Otegui Title: Trafficking and Sequestration of Anthocyanins Total funding: \$868,757	03/01/11 – 02/28/16
NSF DBI-0542034 PI: Grotewold, co-PI: Brkljacic The Arabidopsis Biological Resource Center at the Ohio State University Total funding: \$ 1,843,728	04/01/11 – 03/31/16
NSF MCB-1062348 PI: Meyers, co-PI Grotewold (+3 others) Title: RCN – An International Arabidopsis Informatics Consortium Total funding: \$499,373	11/01/10 – 10/31/15
NSF MCB-1143813 PI: Grotewold, co-PI: Brkljacic Title: Making the Arabidopsis Biological Resource Center Business Model Possible	03/15/12 – 03/14/15

Total Funding: \$573,590

ASPB

PI: Grotewold, co-PI: Brkljacic 08/15/11 – 10/31/13  
 Title: TRAINED - Translating Research on Arabidopsis Into a Network of Educational resources  
 Total Funding: \$28,641

USDA 2010-65115-20408

PI: Grotewold 11/01/09 – 10/31/13  
 Title: Regulation of anthocyanin biosynthesis  
 Total funding: \$350,000

NSF PGRP-0701405

PI: Grotewold, co-PI: Gray 09/01/07 – 08/31/12  
 Title: Grass Regulome Initiative: Integrating control of gene expression and agronomic traits across the grasses  
 Total funding: \$2,480,000

BARD

PI: Barg, co-PI Grotewold 09/01/07 – 08/31/11  
 Title: Regulation of tomato fruit development by interacting MYB proteins  
 Total funding: \$275,000

DOE DE-FG02-07ER15881

PI: Grotewold 08/01/07 – 06/30/11  
 Title: Engineering phenolic metabolism in the grasses using transcription factors  
 Total funding: \$520,000

NSF DBI-0542034

PI: Grotewold, co-PI: Scholl 05/01/06 – 03/31/11  
 The Arabidopsis Biological Resource Center at the Ohio State University  
 Total funding: \$ 2,943,879

USDA-NRICGP 2007-01697

PI: Grotewold 09/01/07 – 08/31/10  
 Title: Transposons as gene control elements  
 Total funding: \$201,025

USDA-NRICGP 2006-03334

PI: Grotewold 12/01/06 – 11/30/09  
 Title: Regulation of anthocyanin biosynthesis  
 Total funding: \$380,648

NSF MCB-0705415

PI: Grotewold 03/01/07 – 02/28/09  
 Title: Development of CREMA: A high throughput method for the identification of promoter mutations  
 Total funding: \$189,557

NSF MCB-0418891

PI: Grotewold, co-PI: Read, Davuluri, Lamb 09/01/04 – 08/31/08

Title: Establishing regulatory networks in Arabidopsis: Integrating AGRIS with the Identification of direct targets for transcription factors

Total funding: \$2,012,000

Ohio Plant Biotechnology Consortium

PI: Grotewold

07/01/07 – 06/30/08

Title: Mutation enrichment: enhancing the opportunities for the identification of plant mutants

Total funding: \$10,000

Ohio Plant Biotechnology Consortium

PI: Gray, co-PI: Grotewold

07/01/07 – 06/30/09

Title: Identification of carbohydrate and phenolic metabolism regulatory genes in corn

Total funding: \$80,000

OARDC

PI: Francis, co-PIs: Schwartz & Grotewold

05/01/05 – 04/30/07

Tomato as a functional food: Metabolic engineering of carotenoid biosynthesis

Total funding: \$100,000

NIH

PI: Grotewold, co-PI: Chappell

04/07/07 – 12/31/07

Title: 2007 Gordon Research Conference Plant Metabolic Engineering

Total funding: \$3,000

DOE

PI: Grotewold, co-PI: Chappell

04/07/07 – 12/31/07

Title: 2007 Gordon Research Conference Plant Metabolic Engineering

Total funding: \$15,000

NSF

PI: Grotewold, co-PI: Chappell

04/07/07 – 12/31/07

Title: 2007 Gordon Research Conference and Graduate Seminar in Plant Metabolic Engineering

Total funding: \$5,000

Office of Naval Research

PI: Grotewold, co-PI: Chappell

04/07/07 – 12/31/07

Title: 2007 Gordon Research Conference and Graduate Seminar in Plant Metabolic Engineering

Total funding: \$5,000

NSF-MCB 0210413

PI: Grotewold

9/1/02 – 8/31/06

Title: Investigating promoter function *in vivo* and the role of transposons as control elements

Total funding: \$388,485

USDA-NRICGP 2003-35318-13689

PI: Grotewold

10/01/03 – 09/30/06

Title: Regulation of anthocyanin biosynthesis

Total funding: \$210,000

NSF-MCB 0437318

PI: Grotewold

07/01/04 – 06/30/05

Title: Solid support-assisted screen of complex protein libraries with small molecules

Total funding: \$100,000

USDA-NRICGP 2002-01267

PI: Grotewold

7/1/02 – 6/30/05

Title: Regulation of important agronomic traits by *P*

Total funding: \$200,000

NSF-MCB-0130062

PI: Grotewold

2/1/02 – 1/31/05

Title: Organization of plant metabolic pathways and subcellular trafficking of phytochemicals

Total funding: \$360,000

MCB-9974474

PI: Grotewold

9/1/99 - 8/31/02

Title: Dissecting promoter function *in vivo*

Total funding: \$367,000

CPBR Inc./DOE

PI: Gopalan, co-PI: Grotewold

1/1/01 - 12/31/02

Title: Ribozyme-mediated disruption of gene expression in plants

Total funding: \$40,000

NSF-MCB-9896111

PI: Grotewold

10/1/97 - 6/01/01

Title: Regulatory specificity of the maize Myb-domain proteins P and C1

Total funding: \$312,000

Pioneer Hi-Bred Intl

PI: Grotewold

1/10/98 - 9/30/00

Title: Elucidation of the role of maize Myb-domain proteins

Total funding: \$70,000

NSF-DBI-9970610

PI: Verma, co-PI: Grotewold

10/1/99 - 9/30/00

Title: Protein purification and detection system for plant biology

Total funding: \$101,430

NSF-MCB-9406233

PI: Grotewold

11/1/94 -10/31/97

Title: Transcriptional regulation by P and C1, two maize Myb-homologs

Total funding: \$331,168

## **OTHER SCIENTIFIC ACTIVITIES**

### *Program/Department Evaluator*

- |      |   |
|------|---|
| 2023 | Member, Committee for the Evaluation of the Department of Chemistry and Biochemistry at The Ohio State University, Columbus, OH |
| 2021 | Chair, Center for Plant Science Innovation (PSI) Program Review Panel, University of Nebraska-Lincoln                           |
| 2019 | Chair, External Advisory Board, University of Nebraska-Lincoln Center for Plant Science Innovation (PSI)                        |

- 2012 Member, Committee for the 5<sup>th</sup> Annual Evaluation of the Joint BioEnergy Institute, Emeryville, CA
- 2012 Member, Committee for the Evaluation of the Unidad de Biotecnología Vegetal (UBV) at the Universidad Javeriana, Bogotá, Colombia.
- 2010 Member, Committee for the Evaluation of the Department of Biochemistry at Purdue University, Purdue, IN.

*Services to Professional Societies (not listed elsewhere)*

- 2019 - present Evaluation Committee, ASPB Summer Undergraduate Research Fellowships (SURF)

*Scientific Publication Reviewer*

- 2024 - Cell Reports
- 2024 - Biomass & Bioenergy
- 2023 - Developmental Cell
- 2023 - PNAS Nexus
- 2023 - Computational and Structural Biotechnology Journal
- 2019 - Theoretical and Applied Genetics
- 2019 - Scientific Reports
- 2015 - Science Advances
- 2015 - Medicinal Research Reviews
- 2014 - Nature Plants
- 2013 - eLife
- 2013 - Nature Genetics
- 2013 - Science Signaling
- 2011 - Nature Chemical Biology
- 2011 - PLoS Genetics
- 2010 - Nature Review Genetics
- 2009 - Bioinformatics
- 2008 - Development
- 2008 - BMC Biotechnology
- 2008 - PLoS Biology
- 2008 - Sexual Plant Reproduction
- 2007 - Annals of Applied Biology
- 2007 - Genome Biology
- 2007 - Journal of Biological Chemistry
- 2006 - BMC Bioinformatics
- 2006 - Marine Biotechnology
- 2005 - BMC Plant Biology
- 2005 - Plant Biology
- 2005 - Physiologia Plantarum
- 2005 - BMC Evolutionary Biology
- 2005 - Molecular Biotechnology
- 2005 - Australian Journal of Agriculture
- 2004 - Journal of Biomedicine & Biotechnology
- 2004 - Electronic Journal of Biotechnology
- 2004 - Biochimica et Biophysica Acta
- 2004 - Journal of Experimental Botany
- 2004 - BMC Biology
- 2004 - Plant Biotechnology Journal
- 2004 - Biochemistry
- 2004 - Trends in Plant Science
- 2004 - Plant, Cell & Environment

2003 – Molecular Genetics & Genomics  
 2003 – Plant Functional Biology  
 2003 – Plant Science  
 2003 – Genome Research  
 2002 Eukaryotic Cell  
 2002 Biochemical Engineering Journal  
 2002 - Journal of Agricultural and Food Chemistry  
 2001 - Plant Science  
 2001 - Molecular and Cellular Biology  
 2001 - Nucleic Acids Research  
 2001 - Journal of Heredity  
 2000 - Science  
 1999 - Proc. Natl. Acad. Sci. USA  
 1999 - Genetics  
 1999 - Molecular Plant-Microbe Interactions  
 1999 - Plant Journal  
 1998 - Genes & Development  
 1998 - Plant Physiology  
 1998 - Plant Molecular Biology  
 1998 - Biotechnology Progress  
 1997 - The Plant Cell  
 1997 - Gene

*Grant Panel Member & Reviewer*

2023 Panel Member, NIFA-AFRI Foundational Knowledge of Plant Products  
 2022 – 2023 Chair, USDA ARS Scientific Review Panel  
 2020 – present European Science Foundation College of Expert Reviewers  
 2020 Panel Member, Genetics Mechanisms at the National Science Foundation  
 2019 Panel Member, Emerging Frontiers in Research and Innovation Program (EFRI) at the National Science Foundation  
 2019 Panel Member, BARD US-Israel Agricultural Research and Development Fund  
 2016 Panel Member, Enabling Discovery through Genomic Tools (EDGE) Program at the National Science Foundation  
 2014, 2016 Panel Member, Signaling and Regulation Program at the National Science Foundation  
 2013 Panel Member, NIH Program Project (P01) Evaluation Virtual Panel  
 2012 Panel Member, Metabolism and Signaling Panel at the National Science Foundation (Virtual Panel)  
 2012 Panel Member, Basic Research to Enable Agricultural Development (BREAD) at the National Science Foundation  
 2011 Panel Member, Metabolism & Bacterial Communities Program at the National Science Foundation  
 2011 Panel Member, FONCyT, Buenos Aires, Argentina  
 2009 Panel Member, Plant Genome Project at the National Science Foundation  
 2006 Ad hoc reviewer for GABI-FUTURE, German Federal Ministry of Education and Research  
 2006 Ad hoc reviewer for Netherlands Organization for Scientific Research  
 2005 Panel Member, Functional Utilization of Plant Genomes US Dept. of Agriculture-ARS  
 2005, 2002 Panel Member, Interagency Activity in Metabolic Engineering at the National Science Foundation  
 2004 Panel Member, Plant Biochemistry at the US Dept. of Agriculture  
 2004 - Ad hoc reviewer for FONCyT, Ministerio de Educación, Ciencia y Tecnología, Argentina

- 2003 Ad hoc reviewer for AAAS Research Competitiveness Service  
 2002 Panel Member, Eukaryotic Genetics at the National Science Foundation  
 2002 Ad hoc reviewer for the International Foundation for Sciences  
 2001 Ad hoc reviewer for the Ministry of Agriculture & Rural Development, Israel  
 2000 - Ad hoc reviewer for the Consortium of Plant Biotechnology Research Inc. grants  
 2000 - Ad hoc reviewer for US Dept. of Agriculture grants  
 1999, '04, '05 Panel Member, Biochemistry of Gene Expression Program at the National Science Foundation  
 1997 - Ad hoc reviewer for National Science Foundation grants

## ORAL PRESENTATIONS

### *International*

- 2021 “Plant Gene Regulation *in Colors*”. INGEBI-University of Buenos Aires, Buenos Aires, Argentina (virtual).  
 2020 “Mutants in the RDR6/SGS3/DCL4 Small RNA Pathway Expose Hidden Features of *Arabidopsis* Metabolism”. In International Virtual Conference on Plant Specialized Metabolism and Metabolic Engineering. CSIR-Central Institute of Medicinal and Aromatic Plants. Bengaluru, India (virtual).  
 2019 “Combinatorial Control of Plant Gene Expression”. National Chung Hsing University (NCHU), Taichung, Taiwan.  
 2019 “Systems Approaches to Study Plant Gene Regulatory Networks”. National Chung Hsing University (NCHU), Taichung, Taiwan.  
 2019 “Biosynthesis, Regulation of Flavonoids and...”. Academia Sinica, University of Taiwan, Taipei, Taiwan.  
 2018 “Emerging Patterns in Plant Gene Regulation”. In SAIB 2018 (Argentine Society of Biochemistry) Conference. Paraná, Argentina.  
 2018 “Combinatorial Gene Regulation and Other Tales”. INGEBI-University of Buenos Aires, Buenos Aires, Argentina.  
 2018 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. In iGRAD-Plant Symposium & Retreat, Düsseldorf, Germany.  
 2017 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. In Taiwan-Japan Plant Biology Conference. Taipei, Taiwan.  
 2016 “Plant Gene Regulatory Networks”. Instituto de Biología Molecular y Celular de Rosario (IBR), Rosario, Argentina.  
 2015 “Elucidating Plant Gene Regulatory Grids”. CEFODI & University of Rosario, Rosario, Argentina.  
 2015 “Combinatorial Gene Regulation Modulated by Small Molecules”. Universidad de Mar del Plata, Mar del Plata, Argentina.  
 2014 “Control of Lignin and General Phenylpropanoid Pathway in Maize”. In XV Congreso Latinoamericano & XXX Reunión Argentina de Fisiología Vegetal. Mar del Plata, Argentina.  
 2014 “Target Gene Selection by Transcription Factors: Where is the Switch?”. CEFODI & University of Rosario, Rosario, Argentina.  
 2013 “Plant Gene Regulatory Networks”. In VIII Encuentro Latinoamericano y del Caribe de Biotecnología REDBIO-Argentina 2013. Mar del Plata, Argentina.  
 2013 “Plant Gene Regulatory Networks”. Fundación para Investigaciones Biológicas Aplicadas (FIBA), Mar del Plata, Argentina.  
 2013 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Universidad de Lavras, Lavras, Brazil.  
 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. In Reunión Annual XXXV Sociedad de Bioquímica y Biología Molecular de Chile, Puerto Varas, Chile.

- 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Universidad Nacional. Bogotá, Colombia.
- 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Universidad Javeriana. Bogotá, Colombia.
- 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Universidad de los Andes. Bogotá, Colombia.
- 2011 “Combinatorial Control of Plant Gene Expression”. Volcani Center, Bet-Dagan, Israel.
- 2011 “Systems Approaches to Unravel Regulatory Networks”. Weizmann Institute, Rehovot, Israel.
- 2010 “Trafficking and Sequestration of Anthocyanins”. CEFABI & University of Rosario, Rosario, Argentina.
- 2010 “Plant Regulatory Networks and Development”. In SAIB 2010 (Argentine Society of Biochemistry) Conference. Puerto Madryn, Argentina.
- 2010 “Trafficking and Sequestration of Anthocyanins”. In XXVth International Conference on Polyphenols. Montpellier, France. (Plenary lecture)
- 2010 “The Arabidopsis Biological Resource Center”. RIKEN, Tsukuba, Japan.
- 2010 “The Arabidopsis Biological Resource Center”. In 21<sup>th</sup> International Conference on Arabidopsis Research, Yokohama, Japan.
- 2010 “From Gene Sequence to Systems Biology: The Emergence of Plant Model Systems”. Tokyo University of Science, Tokyo, Japan.
- 2010 “Systems Approaches to Unravel Plant Regulatory Networks”. Fundación Instituto Leloir, Buenos Aires, Argentina.
- 2010 “Plant Regulatory Networks and Development”. CEFABI & University of Rosario, Rosario, Argentina.
- 2009 “From Gene Regulatory Networks to Plant Metabolic Engineering”. In Tripartite Workshop of the Americas in Biotechnology and Bioenergy. University of São Paulo, São Paulo, Brazil.
- 2009 “Systems Approaches to Unravel Plant Regulatory Networks”. RIKEN Center, Yokohama, Japan.
- 2009 “Trafficking and Sequestration of Anthocyanins”. In 5<sup>th</sup> International Workshop on Anthocyanins”. Nagoya University, Nagoya, Japan. (Plenary Lecture)
- 2009 “Systems Approaches to Unravel Plant Regulatory Networks”. In The DNA Proteome: Recent Advances Towards Establishing the Protein-DNA Interaction Space. BBVA Foundation – IRB Barcelona, Spain.
- 2009 “Anthocyanins: From Regulation to Sequestration”. Centre de Recerca en AgriGenomica (CRAG) – CSIS. Barcelona, Spain.
- 2008 “Combinatorial Control of Plant Gene Expression”. University of São Paulo, Brazil.
- 2008 “Establishing the Architecture of Regulatory Networks in Maize and Other Grasses”. In 54<sup>th</sup> Congresso Brasileiro de Genética. Salvador de Bahia, Brazil.
- 2008 “Intriguing Aspects of Flavonoids and their Biosynthesis”. In Plant Metabolism. Banff, Canada.
- 2008 “Anthocyanins: From Regulation to Sequestration”. Plenary Talk in 19<sup>th</sup> International Conference on Arabidopsis Research. Montreal, Canada.
- 2008 “Flavonoids: From Regulation to Sequestration”. Interdisciplinary Studies in the Chemical Biology of the Tropics. Explorer's Inn, Tambopata National Reserve, Peru.
- 2008 “Combinatorial Control of Plant Gene Expression”. Flanders Institute for Biotechnology (VIB), Gent, Belgium.
- 2008 “A Regulatory Perspective on Plant Metabolic Diversity”. Institute for Plant Biology, Halle, Germany.
- 2007 “Combinatorial Control of Plant Gene Expression by MYB and bHLH Proteins”. HortResearch, Auckland, New Zealand.

- 2007 “From Gene Sequences to Regulatory Networks”. In Queenstown Molecular Biology Satellite Meeting on Gene Expression and Development. Queenstown, New Zealand.
- 2007 “Combinatorial Control of Plant Gene Expression by MYB and bHLH Proteins”. CEFODI and University of Rosario, Rosario, Argentina.
- 2006 “Transcription Factors, Evolution and Metabolic Engineering: Beyond Establishing Plant Regulatory Networks”. Miami University, Oxford, OH.
- 2006 “Combinatorial Control of Gene Expression by MYB and bHLH Transcription Factors”. Colorado State University, Fort Collins, CO.
- 2006 “Establishing Plant Regulatory Networks”. Ohio University, Athens, OH.
- 2006 “Plant Regulatory Networks”. Nebraska Research Expo, Lincoln, NE.
- 2006 “Plant Transcription Factors and Metabolic Engineering”. U. Minnesota, Twin Cities, MN.
- 2005 “Trafficking and Storage of Anthocyanins”. Suntory Ltd, Mishima, Japan.
- 2005 “Building Regulatory Networks in Arabidopsis: A Complex Puzzle with Too Many Pieces”. In CREST-JST International Symposium 2005: Functional Network of Transcription Factors in Plants. Tsukuba, Japan.
- 2004 “Regulation of Flavonoid Biosynthesis”. Free University Amsterdam, The Netherlands.
- 2003 “Subcellular Trafficking of Phytochemicals”. In 5<sup>th</sup> Symposium Mexico-USA, Acapulco, Mexico.
- 2003 “Regulación de la Expresión Génica en Plantas” (Regulation of Plant Gene Expression). INGEBI-University of Buenos Aires, Buenos Aires, Argentina.
- 2003 “Metabolic Engineering with Transcription Factors and Subcellular Trafficking of Phytochemicals”. Lecture for Graduate Course in Plant Biotechnology, Faculty of Pharmacy and Biochemistry, University of Buenos Aires, Argentina.
- 2003 “The Next Generation: Plant Metabolic Engineering with Transcription Factors”. 3<sup>rd</sup> Biotechnology Workshop, Piracicaba, Brazil.
- 2002 “Regulatory Specificity of Myb Transcription Factors”. Brock University, St. Catherine, Ontario, Canada.
- 2002 “Transcription Factors and Metabolic Diversity”. Phytochemical Society of North America 2002 Conference, Mérida, Mexico.
- 2002 “Regulatory Specificity of R2R3 Myb Transcription Factors”. CSIRO, Canberra, Australia.
- 2002 “Biosynthesis and Trafficking of Phytochemicals”. Univ. of Adelaide, Adelaide, Australia.
- 2002 “Transcriptional Regulation of Flavonoid Biosynthetic Genes”. International Workshop of Anthocyanins, Adelaide, Australia.
- 2001 “Regulation of Flavonoid Biosynthesis”. Symposium presentation at X Congreso Nacional de Bioquímica y Biología Molecular de Plantas, La Paz, Mexico.
- 2000 “Evolution and Regulatory Specificity of Myb Transcription Factors”. Free University Amsterdam, The Netherlands.
- 2000 “Transcription Factors and Plant Metabolic Engineering”. Plenary lecture at the Fifth International Symposium on P450 Biodiversity, Elsinore, Denmark.
- 2000 “Regulatory Specificity of Plant Myb-Domain Proteins: Tools for Metabolic Engineering?” Institut des Sciences Vegetales, CNRS, Gif-sur-Yvette, France.
- 1999 “Myb Proteins and Plant Diversity: Tools for Metabolic Engineering?” IX Congreso Nacional de Bioquímica y Biología Molecular de Plantas, Mérida, Mexico.
- 1996 “Regulation of Flavonoid Biosynthesis in Maize”. Free University Amsterdam, The Netherlands.
- 1996 “Transcriptional Regulation by Plant Myb-Domain Proteins”. Institut fuer Allgemeine Botanik, University Hamburg, Germany.
- 1996 “Regulation of Transcription by Myb-Domain Proteins”. John Innes Centre, Norwich, UK.

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- 2024 “Regulatory activities of specialized metabolism intermediates”. Iowa State University, Ames, IA.
- 2024 “Regulatory activities of specialized metabolism intermediates”. Purdue University, West Lafayette, IN.
- 2024 “The Secret Behaviors of Plant Specialized Metabolites”. University of Northern Texas, Denton, TX.
- 2023 “Regulation of Insecticidal Maize Phenolic Compounds”. In Plant Biology 2023, Savannah, GA.
- 2023 “Stress, Genes, Metabolites, and Improving Crop Yield”. In AgSpectrum Company National Dealer Seminar. Tucson, AZ.
- 2023 “Stress, Genes, Metabolites, and Improving Crop Yield”. In AgSpectrum Company Maximum Farming Club Conference. Tucson, AZ.
- 2022 “Unveiling the Secret Life of Specialized Metabolites”. In Plant Biotechnology for Health and Sustainability 2022 Symposium. Michigan State University, East Lansing, MI.
- 2022 Invited to present at the 3<sup>rd</sup> International Conference on Cell and Experimental Biology (CEB-2022) in Boston, MA, but declined and arranged for Postdoc Dr. Nan Jiang to present instead.
- 2021 “The Power of Colors in Understanding Plant Gene Regulation”. City University of New York, Lehman College, NY (virtual).
- 2020 “Natural Variation and Gene Regulation: The Power of Hybrids”. In Plant Biology 2020 Worldwide Summit. On-line Conference (virtual).
- 2019 “Combinatorial Control of Plant Gene Expression”. Danforth Plant Science Center, St. Louis, MO.
- 2019 “Combinatorial Control of Plant Gene Expression”. University of Nebraska, Lincoln, NE.
- 2019 “Combinatorial Control of Specialized Plant Metabolic Pathways”. In 2019 ASBMB Special Symposium, Evolution and Core Processes in Gene Expression, East Lansing, MI.
- 2019 “Modulation of Combinatorial Plant Gene Regulation by Small Molecules”. Noble Research Institute, Ardmore, OK.
- 2019 “Combinatorial Gene Regulation...and Other Flavonoid Tales”. University of Northern Texas, Denton, TX.
- 2016 “Control of Plant Gene Expression”. University of Georgia Plant Center Annual Retreat, Unicoi Park, GA.
- 2016 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. In Soy2016, Columbus, OH, plenary lecture.
- 2015 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Indiana University, Bloomington, IN.
- 2015 “Transcription *in color*: Combinatorial Gene Regulation Modulated by Small Molecules”. Virginia Tech, VA.
- 2015 “Anthocyanins and Stress”. In Plant Biology 2015, Minneapolis, MN.
- 2015 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. University of Arizona, Tucson, AZ.
- 2015 “Combinatorial Gene Regulation by R is Mediated by Small Molecule Interactions”. In 57<sup>th</sup> Annual Maize Genetics Conference, St. Charles, IL.
- 2015 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. University of Florida, Gainesville, FL.
- 2015 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. University of Kentucky, Lexington, KY.

- 2014 “From Gene Regulatory Networks to Increasing Crop Nutritional Value”. Dow Agrosciences, Indianapolis, IN.
- 2013 “From Gene Networks to Flavonoid Biosynthesis: Filling Gaps for Plant Metabolic Engineering”. In Gordon Research Conference in Plant Metabolic Engineering, Waterville, NH.
- 2013 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Michigan State University, East Lansing, MI.
- 2013 “Rethinking Control of Gene Expression: Were Our Professors Usually Wrong?” University of Kentucky, Lexington, KY.
- 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Cornell University, Ithaca, NY.
- 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. University of Wisconsin-Madison, WI.
- 2012 “Systems Approaches to Unravel Plant Gene Regulatory Networks”. Institute of Biological Chemistry, Washington State University, Pullman, WA.
- 2011 “From Plant Systems Biology to Renewable Fuels”. In FAPESP Week: 50 Years of Science in Brazil and Challenges Ahead. Woodrow Wilson International Center for Scholars. Washington DC.
- 2011 “Systems Approaches to Unravel Regulatory Networks”. State University of New York at Stony Brook, NY.
- 2011 “Systems Approaches to Unravel Metabolic and Regulatory Networks”. University of Northern Texas, Denton, TX.
- 2010 “Systems Approaches to Unravel Metabolic and Regulatory Networks”. Brookhaven National Laboratory, Upton, NY.
- 2010 “Systems Approaches to Unravel Plant Regulatory Networks”. University of Michigan, Ann Arbor, MI.
- 2010 “Plant Regulatory Networks and Development”. Plant Gene Expression Center/Univ. California at Berkeley, Albany, CA.
- 2010 “Plant Regulatory Networks and Development”. University of California at Davis, Davis, CA.
- 2010 “Plant Regulatory Networks and Development”. North Carolina Biotechnology Center, Research Triangle Park, NC.
- 2009 “Trafficking and Sequestration of Anthocyanins”. In Gordon Research Conference in Plant Metabolic Engineering, Waterville, NH.
- 2008 “Combinatorial Control of Plant Gene Expression”. University of Missouri-Columbia, MI.
- 2007 “Phenolic Compounds in the Grasses: Regulation and Sequestration”. In Fifth Tripartite Workshop in Biotechnology and BioEnergy, East Brunswick, NJ
- 2006 “Transcription Factors, Evolution and Metabolic Engineering: Beyond Establishing Plant Regulatory Networks”. Miami University, Oxford, OH.
- 2006 “Combinatorial Control of Gene Expression by MYB and bHLH Transcription Factors”. Colorado State University, Fort Collins, CO.
- 2006 “Establishing Plant Regulatory Networks”. Ohio University, Athens, OH.
- 2006 “Plant Regulatory Networks”. Nebraska Research Expo, Lincoln, NE.
- 2006 “Plant Transcription Factors and Metabolic Engineering”. U. Minnesota, Twin Cities, MN.
- 2005 “Establishing Plant Regulatory Networks”. Michigan State University, East Lansing, MI.
- 2005 “Control of Flavonoid Biosynthesis in Maize: A case for the Combinatorial Control of Plant Gene Expression”. In Plant & Animal Genome XIII. San Diego, CA.
- 2004 “Regulation of Flavonoid Biosynthesis: A Window Into the Combinatorial Control of Plant Gene Expression”. University of Missouri-St. Louis, MO.
- 2004 “Regulatory Specificity of Plant MYB Transcription Factors”. Penn State University, College Station, PA.

- 2003 “Regulatory Specificity of Plant MYB Transcription Factors”. Lehman College of CUNY, New York, NY.
- 2003 “Regulation of Plant Gene Expression and Metabolic Engineering”. Ceres, Inc. Malibu, CA.
- 2003 “Combinatorial Control of Plant Gene Expression”. Duke University, Durham, NC.
- 2003 “Combinatorial Control of Plant Gene Expression”. Plant Gene Expression Center/UC Berekely, Albany, CA.
- 2003 “Combinatorial Control of Plant Gene Expression”. UC Davis, Davis, CA.
- 2003 “Understanding Combinatorial Control of Plant Gene Expression”. Purdue University, West Laffayette, IN.
- 2002 “Regulation of Plant Gene Expression”. California State University, San Marcos, CA.
- 2002 “Regulatory Specificity of Plant Myb Domain Proteins”. DuPont, Wilmington, Delaware.
- 2001 “Evolution of Novel Regulatory Functions in Plants”. Virginia Tech University, Blacksburg, VA.
- 2001 “Engineering Plant Metabolism with Transcription Factors”. Pioneer Hi-Bred. Intl., Johnston, IA.
- 2000 “Myb Transcription Factors and the Regulation of Plant Gene Expression”. University of California at Davis, CA.
- 2000 “Myb Transcription Factors and the Regulation of Plant Gene Expression”. Stanford University, CA.
- 2000 “Myb proteins and plant diversity: Tools for Metabolic Engineering?” University of Kentucky, Lexington, KY.
- 1999 “Regulation of Gene Expression by Plant Myb Proteins: New Tools for Old Questions?” Institute of Biological Chemistry, Washington University, Pullman, WA.
- 1999 “Regulatory Specificity, Function and Evolution of Plant Myb Proteins”. Univ. of Illinois, Urbana, IL.
- 1999 “Myb proteins and plant diversity: Tools for Metabolic Engineering?” DuPont, Wilmington, Delaware.
- 1999 “Evolution and Regulatory Specificity of Plant Myb-Domain Proteins”. Iowa State University, Ames, Iowa.
- 1999 “Myb Proteins and Plant Diversity: Tools for Metabolic Engineering?” Pioneer Hi-Bred, Intl, Johnston, Iowa.
- 1999 “Plant Myb-Domain Proteins and Metabolic Diversity: Tools for Engineering Secondary Metabolism?” First PBMB Symposium on Metabolic Networking in Plants, Ames, IA.
- 1997 “Specificity and Biological Functions of Plant Myb-Domain Proteins”. Lehman College, New York.
- 1997 “Plant Myb-Domain Proteins: Function and Biological Specificity”. Yale University, New Haven, CT.
- 1996 “Myb Protein Function *In Color*”. Iowa State University, Ames, Iowa
- 1994 “Transcriptional Regulation by the Maize Myb-Homologs P and C1”. Gordon Conference: Regulatory Mechanisms in Plants, New Hampton, NH.
- 1992 “Regulation of Transcription by the Maize P1 Myb Gene”. Yale University, New Haven, CT.

### **MAJOR TEACHING ACTIVITIES**

#### *Michigan State University*

- BMB 829-301 – Special Problems in Macromolecular Analysis and Synthesis: Module 1 (1 cr) – taught Autumn 2022, 2023; 10 – 22 PhD graduate students
- BMB 370 - Introductory Biochemistry Lab (3 cr) – Autumn 2022; ~60 BMB majors
- BMB 470 - Experiments in Molecular Biology: Biochemical Applications (3 cr) - taught Autumn 2018, 2019, 2020; 70 - 90 senior BMB majors each semester

BMB 960-301 - Plant Biotechnology for Health and Sustainability Seminar (1 cr) – taught Autumn 2020, 2021, 2022; 7 - 10 PhD graduate students

*The Ohio State University*

MG 660 – Integrated Molecular & Cellular Biology for Non-Biologists (5 cr) – course co-developed by Grotewold; taught Autumn 2009 & Autumn 2010; 10-15 MSc students

PCMB/MG 622 - Plant Molecular Biology (4 cr) – taught Winter quarters of 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2009, 2010, 2011; 20-30 advanced undergraduate and graduate students

PCMB 625 – Plant Metabolic Engineering (3 cr) – course developed by Grotewold; taught Spring quarter 2000 and Winter quarters of 2001, 2003, 2009 (course developed by Erich Grotewold); 7-15 advanced undergraduate and graduate students

PCMB/HCS/PP 604.02 – Research Methods in Plant Science (4 cr) – taught Winter quarter 2004; 20 advanced undergraduate and graduate students

ARTSCI 137 - Biotechnology & Society: What are the Issues Today? (1 cr) – taught Winter quarters 2004 and 2007; 7-12 freshman students

Lecturer PCMB 736 - Plant Biochemistry (4/4/06)

Lecturer PP 703 – Agricultural Genomics (5/26/06)

*Cold Spring Harbor Laboratory*

Molecular Techniques in Plant Science - Lecturer and Module Instructor (7/07; 7/08; 7/09; 7/14)

**LABORATORY PERSONNEL TRAINING ACTIVITIES**

*Postdoctoral Researchers (Current position, when known)*

Pablo Rabinowicz (Program Director, Department of Energy)

Edward Braun (Professor, University of Florida)

Manjusha Kulkarni

Lila Pooma

Vinod Malik

Alper Yilmaz (Assistant Professor, Yildiz Technical University, İstanbul)

Yuhua Lu

Joseph Onyilagha (Associate Professor, University of Arkansas at Pine Bluff)

Lucille Pourcel (Research Scientist, University of Lausanne)

Chenglin Chai (Adjunct Assistant Professor, Oxford College, GA)

Xinli Sun

Yongquin Wang

Asela Wijeratne (Assistant Professor, Arkansas State University)

Frantisek Poustka

Marcelo Pomeranz (Patent Agent, Cooley LLP)

Marko Djordjevic (Associate Professor, University of Belgrade)

Haidong Yu (Assistant Professor, Henan Agricultural University, China)

Kengo Morohashi (Professor, Chitose Institute of Science and Technology, Hokkaido, Japan)

Tomoe Kusayanagi (Researcher, Nobelpharma Co., Ltd, Japan)

Fan Yang (Researcher, Benson-Hill Biosystems, MO)

Nikola Kovicich (Assistant Professor, York University, Ontario, Canada)

Dan Siegal-Gaskin (Associate Director, Business Development, Ginkgo Bioworks)

Han Nim Lee (Postdoc, University of Wisconsin-Madison)

Hervé Begué (Postdoc, University of Burgundy, France)

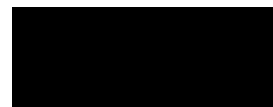
Francisco Maria Dillon (Molecular Breeder at Great Seeds, Inc)

Jagannath Silwal (Senior Scientist, Zoetis, Kalamazoo MI)

Radin Sadre (Assistant Professor, The Ohio State University)  
Hadi Nayebi Gavgani  
Nan Jiang (Assistant Professor, University of Hawaii)  
Yun Sun (Sunnie) Lee (current)  
Yi-Hsuan Chu (current)  
Suresh Gupta (current)  
Andre Wyzykowski (current)

*Graduate Students (Graduation title, year/current position)*

Anusha Dias (PhD, 2003/Senior Director, RNA Science Team, Sanofi SA)  
George Heine (PhD, 2006/Not known)  
Niloufer Irani (PhD, 2006/Assistant Facility Manager, Oxford University Micron Bioimaging Facility, UK)  
J. Marcela Hernandez (PhD, 2006/Graduate/STEM Diversity Director at The Ohio State University)  
Zidian Xie (PhD, 2009/Senior Health Information Data Analyst, Univ. of Rochester Medical Center, NY)  
Antje Feller (PhD, 2010/Lab Manager, University of Tuebingen, Germany)  
Katja Machemer-Noonan (PhD, 2014/Postdoc, Ruprecht-Karls University, Heidelberg, Germany)  
Daniel Arango-Tamayo<sup>1</sup> (PhD, 2015/Assistant Professor, Northwestern University)  
Maria Isabel Casas (PhD, 2015/Publications Director, ASBMB)  
Maria Katherine Mejia-Guerra (PhD, 2015/Bioinformatics Coordinator, Sarepta Therapeutics, NC)  
Wilberforce Ouma (PhD, 2017/Senior Systems Consultant, Ohio Supercomputer Center, Columbus, OH)  
Fabio Andres Gomez Cano (PhD, 2023/Postdoc University of Michigan)  
Lina Gomez Cano (current, Michigan State University)



February 28, 2024

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<sup>1</sup> Co-advisor. Primary advisor Dr. Andrea I. Doseff