

Teemu H. Teeri

- Born 22.7. 1956 in Helsinki, Finland
- B.Sc. 13.12. 1979, University of Helsinki, Finland
- M.Sc. 21.12. 1982, University of Helsinki, Finland
- Ph.D. 22.12. 1988, University of Helsinki, Finland

All degrees are in genetics, the other main subjects being microbiology, biochemistry, chemistry, mathematics and computer science.

Honors, grants:

- University Master thesis award 1982
- Emil Aaltonen Foundation fellowship 1983-1986
- Grants from Harry Federlay Foundation (1983), Finnish Ministry of Education (1984), Oskar Öflund Foundation (1985, 1988) and The Research Foundation for Biotechnology and Brewing Industry (1984, 1988)
- Emmanuel Merck award 1993
- Member of Biocentrum Helsinki 1994-2000
- Centre of Expertise Programme in the Helsinki Region award 1996, 1997
- Member of the Academy of Finland Center of Excellence 'Plant Molecular Biology and Forest Biotechnology Research Unit' 2000-2005
- Member of Biocentrum Helsinki 2001-2007
- Member of the Academy of Finland Center of Excellence 'Plant Signal Research Unit' 2006-2011
- Member of Biocentrum Helsinki 2008-2010
- SPPS Popularization Award 2013

Occupations:

- Research Assistant for Dr. Juhani Lokki and Dr. Anssi Saura, Department of Genetics, University of Helsinki, 1.1. 1981 – 31.12. 1982. (Restriction enzyme analysis of *Pisum sativum* cultivars and *Calamagrostis* species.)
- Research Assistant for Dr. Tapio Palva, Department of Genetics, University of Helsinki, 1.1. – 31.5. 1984. (Plant vectors from Ti-plasmids.)
- Emil Aaltonen foundation research fellow, Department of Genetics, University of Helsinki and Laboratorium Genetica (Prof. Marc Van Montagu), Rijksuniversiteit Gent, Belgium (12 months), 1.6. 1984 – 31.1. 1986. (Plant vectors from Ti-plasmids.)
- Docent in molecular genetics 14.6. 1989.
- Senior scientist in the plant molecular genetics group, Department of Genetics, University of Helsinki, 1.2. 1986 – 30.6. 1990. (Tissue specific and temperature inducible gene expression in plants; Improvement of malting barley by gene transfer.)

- Group leader, Plant molecular biology laboratory, Institute of Biotechnology, University of Helsinki, 1.7. 1990 – 31.3. 1997.
- Research Director, Research Program in Plant Molecular Biology, Institute of Biotechnology, University of Helsinki, 1.4. 1997 – 31.3. 2002.
- **Professor in Plant Breeding, Department of Applied Biology, University of Helsinki, 1.11. 2001 –**
- Professor II (part-time) in Plant Genomics and Molecular Biology, Department of Biology, University of Tromsø, 1.1. 2004 – 30.4. 2007.

Services (among others):

- PhD theses supervised (17)
- PhD theses under supervision (3)
- Prereview for PhD theses (23 times)
- Opponent for PhD theses (16 times)
- Regular reviewer of manuscripts (*Plant Cell*, *Plant J.*, *Plant Phys.*, *Plant Mol. Biol.*, *PNAS*, *Planta*, *Phytochemistry*, *Transgenic Res.*, *Gene*, *Biotechnology Letters*, *PLoS Genetics*, *J. Exp. Bot.*, *BMC Genomics*, *BMC Plant Biology*, *Molecular Biology and Evolution*, *Trends In Plant Science* etc.) and grant proposals (Vetenskapsrådet, Sweden; Formas, Sweden; Forskningsrådet, Norway; USDA, USA; NSF, USA; NSERC, Canada; BBSRC, UK)
- Vice director of the Academy of Finland Center of Excellence *Plant Molecular Biology and Forest Biotechnology* 2000-2005
- Chairman of the *Foundation for Forest Tree Breeding* (Finland) 2003 -
- Vice director of the Academy of Finland Center of Excellence *Finnish Centre of Excellence in Plant Signal Research* 2006-2011
- Director of Department of Applied Biology, University of Helsinki 2007-2009

Scientific publications:

- Refereed Journals: 98
- Books, book chapters, proceedings etc.: 37
- Publications in the national forum: 30
- Patent families and patent applications: 9
- Sum of times cited: 3005
- Hirsch-index: 33

Most important collaborators:

- Prof. Victor Albert, University at Buffalo, U.S.A.
- Prof. Paula Elomaa, University of Helsinki, Finland
- Doc. Anna Kärkönen, University of Helsinki, Finland
- Dr. Stefan Martens, Fondazione Edmund Mach, Italy
- Dr. Alberto Cassetta, Italian National Research Council, Institute of Crystallography (CNR-IC), Italy
- Dr. Julian Verdonk, Wageningen University, The Netherlands

Supervisor for M.Sc. theses (in Finnish, *in English):

1. Jussi Uotila 1988: Translation from polycistronic mRNA in plants.
2. Yrjö Helariutta 1989: Spatially and temporally regulated abundant gene products in the petal of *Gerbera* ray floret.
3. Taina Suntio 1990: In vivo labeling of promoters active in apical meristems by gene fusion vectors.
4. Laura Lindgren 1995: Vector mediated gene transfer from *Hyoscyamus niger* to *Hyoscyamus muticus* in order to increasing scopolamin production.
5. Katja Jouhikainen 1997: Somaclonal variation and increase of scopolamine production by gene transfer of the *h6h* gene in root hair cultures of *Hyoscyamus muticus*.
6. Jussi Joensuu 2000: Isolation and comparison of starchy endosperm specific gene regulatory elements in barley (*Hordeum vulgare* L.).
7. Katja Bengtsson 2001: Effects of UV-B radiation and the plant pathogens *Phytophthora* and *Fusarium* in expression of the genes encoding phenylpropanoid biosynthesis in *Gerbera hybrida*.
8. Suvi Broholm 2004: Function of the *GDEF1* gene in the inflorescence of gerbera.
9. Juha Immanen 2005: Annotation and expression analysis of gerbera (*Gerbera hybrida*) EST collection.
10. Luis Santos 2006: *Optimization of protein production in plants by agroinfiltration.
11. Hannu Hotti 2008: Biosynthesis of parasorboside in mountain ash (*Sorbus aucuparia* L.).
12. Siri Taalas 2008: Secondary metabolites in the defence of gerbera against grey mold.
13. Jukka-Pekka Verta 2008: Polymorphism in the decay resistance gene *PST-1* in pine (*Pinus sylvestris* L.).
14. Katri Molarius 2008: Biosynthesis and metabolism of the two *Gerbera hybrida* secondary metabolites gerberin and parasorboside.
15. Karel Miettinen 2009: Gerberin/parasorboside β -glucosidase in *Gerbera hybrida*.
16. Soubir Titov 2010: *Protein-protein interaction assay with split luciferase *in planta*
17. Tiia Turtiainen 2010: Effect of the women consumers' knowledge and of general attitudes on the GM-attitude and effect of the GM-attitude to information desire about genemodified crops: case Marttaliitto
18. Cuong Xuan Nguyen 2012: *Interference between gerberin/parasorboside and carotenoid biosynthesis
19. Uche Okeke 2012: *Pine transcriptomics — RNA-Seq data analysis of Scots pine (*Pinus sylvestris*) seedlings subjected to a wounding experiment
20. Zubair Rafique 2013: *Analysis of Scots pine promoter (*PST-1*) in homologous and heterologous systems via transient expression of luciferase fusions.
21. Jiale Xiang 2014: *Protein-protein interactions of the flavonoid biosynthetic enzymes in *Arabidopsis thaliana*.
22. Raisa Osama 2014: *Identification of a novel CHS-like gene in *Gerbera hybrida*.

Supervisor for Ph.D. theses:

1. Jukka Kervinen 1994: Structure, intracellular targeting and function of the barley aspartic proteinase. University of Jyväskylä.
2. Yrjö Helariutta 1995: Developmental expression and molecular evolution of the flavonoid biosynthetic genes in *Gerbera hybrida* (Asteraceae). University of Helsinki.

3. Anneli Ritala 1995: Transgenic barley by particle bombardment. (Supervised jointly with Prof. Veli Kauppinen.) University of Helsinki.
4. Pia Runeberg-Roos 1996: Mitochondrial tRNA^{Trp}, tRNA^{Pro} and vacuolar aspartic proteinase as components in the protein metabolism of plant cell organelles. University of Helsinki.
5. Paula Elomaa 1996: Genetic modification of flavonoid pathway in ornamental plants. University of Helsinki.
6. Kirsi Törmäkangas 1997: Structure, expression and intracellular targeting of barley aspartic proteinase. University of Helsinki.
7. Mika Kotilainen 2000: Flower development in *Gerbera hybrida*, Asteraceae. University of Helsinki.
8. Roosa Laitinen 2006: The gerbera cDNA microarray: A tool for large-scale identification of genes involved in flower development. (Supervised jointly with Prof. Paula Elomaa.) University of Helsinki.
9. Sanna Seppänen 2007: Interactions between transgenic trees and mycorrhizal and pathogenic fungi. (Supervised jointly with Prof. Kim von Weissenberg.) University of Helsinki.
10. Sanna Koutaniemi 2007: Lignin biosynthesis in Norway spruce: from a model system to the tree. University of Helsinki.
11. Miia Ainasoja 2008: Secondary metabolites in *Gerbera hybrida*. University of Helsinki.
12. Suvi Broholm 2009: The role of MADS and TCP transcription factors in *Gerbera hybrida* flower development. (Supervised jointly with Prof. Paula Elomaa.) University of Helsinki.
13. Xianbao Deng 2013: Development and application of *Tobacco Rattle Virus* induced gene silencing in *Gerbera hybrida*. (Supervised jointly with Prof. Paula Elomaa and Prof. Jari Valkonen) University of Helsinki.
14. Hany Bashandy 2016: Flavonoid metabolomics in *Gerbera hybrida* and elucidation of complexity in the flavonoid biosynthetic pathway. University of Helsinki.
15. Juha Kontturi 2017: Type III polyketide synthases from *Gerbera hybrida*. University of Helsinki.
16. Kean-Jin Lim 2017: Scots pine (*Pinus sylvestris* L.) heartwood formation and wounding stress: A view from the transcriptome. University of Helsinki.
17. Tanja Paasela 2017: The stilbene biosynthetic pathway and its regulation in Scots pine. University of Helsinki.

Supervisor for Ph.D. theses in progress:

1. Satu Ruokolainen: MADS-box family of transcription factors in Gerbera.
2. Inka Juntheikki-Palovaara: Molecular network connected to flower type differentiation in Gerbera. (Supervised jointly with Prof. Paula Elomaa)
3. Lingping Zhu: Identification and characterization of PKS associated enzymes in *Gerbera hybrida*.
4. Minhazur Rahman: Production of alkyl resorcinol and acyl phloroglucinol through type III polyketide synthases in heterologous hosts, and their biofunctional properties.

Research funding:

- Ministry of Agriculture and Forestry
Modification of starch by gene transfer to barley (shared with Dr. Alan Schulman), 1992–1994: FIM 753.000,-
Aspartic proteinase of barley, 1992–1994: FIM 793.000,-
- Technology Development Centre (TEKES)
Targeted modification of enzyme composition in plants, 1991–1992: FIM 801.000,-
- State Research Centre
Improvement of malting barley, 1993–1996: FIM 600.000,-
- Kemira Agro Oy
Regulation of plant genes, 1991–1992, 6 man-years.
Regulation of plant genes (shared with Prof. Mart Saarma), 1993–1996: 4.5 man-years.
- Ministry of Education
Molecular breeding of economical plants (shared with Prof. Mart Saarma), 1993–1994: FIM 650.000,-
- Academy of Finland, Projects for Novel Industrialization (decision notification n:o 40057)
Molecular breeding of economical plants (shared with Prof. Mart Saarma), 1994–1996: FIM 693.000,-
- Academy of Finland, Projects for Novel Industrialization (decision notification n:o <unknown>)
Biosynthesis of novel starches in transgenic barley (shared with Dr. Alan Schulman), 1994–1996: FIM 450.000,-
- Academy of Finland, Genome Research Programme (decision notification n:o <unknown>)
Integration and transposition in barley, Subproject 4, 1995–1997: FIM 773.300,-
- Academy of Finland, Research Project (decision notification n:o 46567, 53687)
Gene regulation and flower development in *Gerbera hybrida* (Asteraceae), 1996–1998: FIM 828.600,-
- Culminatum Oy
Barley seed as a factory, 1996–1997: FIM 200.000,-
- Academy of Finland, Genome Research Programme (decision notification n:o 59298)
Retrotransposon vectors for integration and transformation in barley, Subproject 2, 1998–2000: FIM 750.000,-
- Technology Development Centre (TEKES)
Disease resistance and wood durability in birch and aspen through gene technology (shared with Prof. Kim von Weissenberg), 1998–2001: FIM 2.295.000,- (38% for T.T.)
- Technology Development Centre (TEKES)
Isolation and regulation of the lignin forming enzymes and their genes in Norway spruce (shared with Prof. Liisa Simola and Doc. Ilkka Kilpeläinen), 1998–2001: FIM 3.040.000,- (33% for T.T.)
- Academy of Finland, Research Project (decision notification n:o 63904)
Novel functions for MADS box genes in *Gerbera hybrida* (Asteraceae), 1999–2001: FIM 1.567.200,-
- Academy of Finland and matching funds through Ministry of Education
Plant Molecular Biology and Forest Biotechnology Research Unit, Membership in Centre of Excellence (50% participation), 2000–2002: FIM 430.000,- (annually)
- Technology Development Centre (TEKES)

- Functional characterisation of lignin forming enzymes (shared with Prof. Liisa Simola and Doc. Ilkka Kilpeläinen), 2001–2002: FIM 1.800.000,- (33% for T.T.)
- Technology Development Centre (TEKES)
 - New cell wall and fibre modifying enzymes from plants; part of a larger project with the Technical Research Centre of Finland VTT (shared with Doc. Yrjö Helariutta), 2001–2002: FIM 1.040.000,- (50% for T.T.)
 - Nordtest
 - Transgenic raw materials in food production - Detection of transgene and heterologous protein levels, 2001–2003: ca. FIM 110.000,-
 - Academy of Finland and matching funds through Ministry of Education
 - Plant Molecular Biology and Forest Biotechnology Research Unit, Membership in Centre of Excellence (100% participation), 2003–2005: EUR 104.000,- (annually)
 - Technology Development Centre (TEKES)
 - Functional characterisation of lignin forming enzymes and their genes in norway spruce (shared with Prof. Liisa Simola and Prof. Ilkka Kilpeläinen), 2003–2004: EUR 330.000,- (33% for T.T.)
 - Technology Development Centre (TEKES)
 - Fibre modifying proteins from plants; part of a larger project with the Technical Research Centre of Finland VTT (shared with Doc. Yrjö Helariutta), 2003–2004: EUR 106.000,- (75% for T.T.)
 - Academy of Finland, Postdoctoral Researcher (decision notification n:o 204196)
 - Flower development beyond the ABC model in *Gerbera hybrida*, 2003–2005: EUR 100.000,-
 - Academy of Finland (decision notification n:o 207410)
 - Metabolic changes in genetically modified plants (shared with Doc. Pia Vuorela and Dr. Kamran Fakhimzadeh), 2004–2007: EUR 503.700,- (37% for T.T.)
 - Technology Development Centre (TEKES)
 - Ligniinin biosynteesi kuusella, 2005–2006: EUR 138.300,-
 - Academy of Finland and matching funds through Ministry of Education
 - Plant Molecular Biology and Forest Biotechnology Research Unit, Membership in Centre of Excellence, 2006–2011: EUR 100.000,- (annually)
 - Technology Development Centre (TEKES)
 - Functional genomics of wood formation (shared with Prof. Yrjö Helariutta and Prof. Jaakko Kangasjärvi), 2005–2007: EUR 1.368.000,- (33% for T.T.)
 - Academy of Finland DAAD funding (decision notification n:o 121610)
 - Expression systems and biochemical synthesis of phenylpropanoids, 2007–2008: EUR 7.400,-
 - Nikolai ja Ljudmila Borisoffin Puutarhasäätiö (private foundation)
 - Metabolic profiles as a measure to estimate disease resistance in horticultural plants, 2009-2010: EUR 15.000,-
 - Technology Development Centre (TEKES)
 - Functional genomics of wood formation II (shared with Prof. Yrjö Helariutta, Prof. Jaakko Kangasjärvi and Doc. Kurt Fagerstedt), 2008–2010: EUR 804.100,- (32% for T.T.)
 - Technology Development Centre (TEKES)
 - Functional genomics of wood formation III (shared with Prof. Yrjö Helariutta, Prof. Jaakko Kangasjärvi and Doc. Kurt Fagerstedt), 2008–2013: EUR 1.125.000,- (30% for T.T.)
 - Academy of Finland (decision notification n:o 139513)

- Isolation and characterization of polyketide reductases in plants (shared with Dr. Heiko Rischer), 2011–2014: EUR 472.670,- (for T.T.)
- Academy of Finland DAAD funding (decision notification n:o259706)
Comparative carpel transcriptomics – deciphering common developmental pathways across flowering plants, 2012-2013: EUR 9000,-
 - Academy of Finland (decision notification n:o 264621)
GENOCHEM: High throughput genetic and chemical analysis of birch wood towards new biorefinery products (shared with six PIs), 2013-2015: EUR 629.185,- (17% for T.T.)
 - Academy of Finland (decision notification n:o 307579)
Genomic Selection: Towards more Efficient, Financially Viable and Resilient Wood Production (shared with Prof. Fred Asiegbu, Prof. Katri Kärkkäinen and Prof. Outi Savolainen), 2017-2020: EUR 312.063.- (for T.T.)

PUBLICATIONS:

Teemu H. Teeri
September 21, 2018

Refereed Journals:

1. Suomalainen, E., Saura, A., Lokki, J. and Teeri, T. 1980: Genetic polymorphism and evolution in parthenogenetic animals. *Theor. Appl. Genet.*, 57:129-132.
2. Teeri, T., Saura, A. and Lokki, J. 1984: Chloroplast DNA from *Calamagrostis* species by selective lysis of organelles. *Hereditas*, 101:123-126.
3. Linden, H. and Teeri, T. 1985: Genetic differentiation in the capercaillie, *Tetrao urogallus*, populations. *Hereditas*, 102:297-299.
4. Teeri, T.H., Saura, A. and Lokki, J. 1985: Insertion polymorphism in pea chloroplast DNA. *Theor. Appl. Genet.*, 69:567-570.
5. Teeri, T.H., Herrera-Estrella, L., Depicker, A., Van Montagu, M. and Palva, E.T. 1986: Identification of plant promoters in situ by T-DNA mediated transcriptional fusions to the npt-II gene. *EMBO J.*, 5:1755-1760.
6. Lång, H., Teeri, T., Kurkela, S., Bremer, E. and Palva, E.T. 1987: A plasmid vector for simultaneous generation of lacZ protein fusions and npt-II operon fusions in vivo. *FEMS Microbiol. Lett.*, 48:305-310.
7. Kurkela, S., Lehvälaiho, H., Palva, E.T and Teeri, T.H. 1988: Cloning, nucleotide sequence and characterization of genes encoding naphthalene dioxygenase of *Pseudomonas putida* strain NCIB9816. *Gene*, 73:355-362.
8. Teeri, T.H., Lehvälaiho, H., Franck, M., Uotila, J., Heino, P., Palva, E.T., Van Montagu, M. and Herrera-Estrella, L. 1989: Gene fusions to lacZ reveal new expression patterns of chimeric genes in transgenic plants. *EMBO J.*, 8:343- 350.
9. Teeri, T.H., Patel, G.K., Aspegren and K., Kauppinen, V. 1989: Chloroplast targeting of NPTII with a pea transit peptide in electroporated barley mesophyll protoplasts. *Plant Cell Rep.*, 8:187-190.
10. Angenon, G., Uotila, J., Kurkela, S.A., Teeri, T.H., Botterman, J., Van Montagu, M. and Depicker, A. 1989: Expression of dicistronic transcriptional units in transgenic tobacco. *Mol. Cell. Biol.*, 9:5676-5684.
11. Salmenkallio, M., Hannus, R., Teeri, T.H. and Kauppinen, V. 1990: Regulation of α -amylase promoter by gibberellic acid and abscisic acid in barley protoplasts transformed by electroporation. *Plant Cell Rep.*, 9:352-355.
12. Elomaa, P., Honkanen, J., Puska, R., Seppänen, P. Helariutta, Y., Mehto, M., Kotilainen, M., Nevalainen, L. and Teeri, T.H. 1993: Agrobacterium mediated transfer of antisense chalcone synthase cDNA to *Gerbera hybrida* inhibits flower pigmentation. *Bio/Technology*, 11:508-511.
13. Ritala, A., Mannonen, L., Salmenkallio, M., Kurtén, U., Hannus, R., Aspegren, K., Mendez-Lozano, J., Teeri, T.H. and Kauppinen, V. 1993: Stable transformation of barley tissue culture by particle bombardment. *Plant Cell Rep.*, 12:435-440.

14. Helariutta, Y., Elomaa, P., Kotilainen, M., Seppänen, P. and Teeri, T.H. 1993: Cloning of cDNA coding for dihydroflavonol-4-reductase (DFR) and characterization of *dfr* expression in the corollas of *Gerbera hybrida* var. *Regina* (Compositae). *Plant Mol. Biol.*, 22:183-193.
15. Truve, E., Aaspõllu, A., Honkanen, J., Puska, R., Mehto, M., Hassi, A., Teeri, T.H., Kelve, M., Seppänen, P. and Saarma, M. 1993: Transgenic potato plants expressing mammalian 2'-5' oligoadenylate synthase are protected from potato virus X infection under field conditions. *Bio/Technology*, 11:1048-1052.
16. Ritala, A., Aspegren, K., Kurtén, U., Salmenkallio-Marttila, M., Mannonen, L., Hannus, R., Kauppinen, V., Teeri, T.H. and Enari, T.-M. 1994: Fertile transgenic barley by particle bombardment of immature embryos. *Plant Mol. Biol.*, 24:317-325.
17. Suntio, T.M. and Teeri, T.H. 1994: A new bifunctional reporter gene for in-vivo tagging of plant promoters. *Plant Mol. Biol. Reporter*, 12:43-57.
18. Törmäkangas, K., Kervinen, J., Östman, A. and Teeri, T.H. 1994: Tissue-specific localization of aspartic proteinase in developing and germinating barley grains. *Planta* 195: 116-125.
19. Holmström, K.-O., Welin, B., Mandal, A., Kristiansdottir, I., Teeri, T.H., Lamark, T., Strøm, A. and Palva, E.T. 1994: Production of the *Escherichia coli* betaine-aldehyde dehydrogenase, an enzyme required for the synthesis of the osmoprotectant glycine betaine, in transgenic plants. *Plant Journal* 6:749-758.
20. Kotilainen, M., Helariutta, Y., Elomaa, P., Paulin, L. and Teeri, T.H. 1994: A corolla- and carpel-abundant, nonspecific lipid transfer protein gene is expressed in the epidermis and parenchyma of *Gerbera hybrida* var. *Regina* (Compositae). *Plant Mol. Biol.* 26:971-978.
21. Saito, K., Hamajima, A., Ohkuma, M., Murakoshi, I., Ohmori, S., Kawaguchi, A., Teeri, T.H. and Cronan, J.E. Jr. 1995: Expression of the *Escherichia coli* *fabA* gene encoding β -hydroxydecanoyl thioester dehydrase and transport to chloroplasts in transgenic tobacco. *Transgenic Research* 4:60-69.
22. Aspegren, K., Mannonen, L., Ritala, A., Puupponen-Pimiä, R., Kurtén, U., Salmenkallio-Marttila, M., Kauppinen, V. and Teeri, T.H. 1995: Secretion of a heat-stable fungal β -glucanase from transgenic, suspension-cultured barley cells. *Molecular Breeding* 1:91-99.
23. Helariutta, Y., Elomaa, P., Kotilainen, M., Griesbach, R.J., Schröder, J. and Teeri, T.H. 1995: Chalcone synthase-like genes active during corolla development are differentially expressed and encode enzymes with different catalytic properties in *Gerbera hybrida* (Asteraceae). *Plant Mol. Biol.* 28:47-60.
24. Helariutta, Y., Kotilainen, M., Elomaa, P. and Teeri, T.H. 1995: *Gerbera hybrida* (Asteraceae) imposes regulation at several anatomical levels during inflorescence development on the gene for dihydroflavonol-4-reductase. *Plant Mol. Biol.* 28:935-941.
25. Elomaa, P., Helariutta, Y., Griesbach, R.J., Kotilainen, M., Seppänen, P. and Teeri, T.H. 1995: Transgene inactivation in *Petunia hybrida* is influenced by the properties of the foreign gene. *Mol. Gen. Genet.* 248:649-656.
26. Salmenkallio-Marttila, M., Aspegren, K., Åkerman, S., Kurtén, U., Mannonen, L., Ritala, A., Teeri, T.H. and Kauppinen, V. 1995: Transgenic barley (*Hordeum vulgare* L.) by electroporation of protoplasts. *Plant Cell Rep.*, 15:301-304.

27. Elomaa, P., Helariutta, Y., Kotilainen, M. and Teeri, T.H. 1996: Transformation of antisense constructs of the chalcone synthase gene superfamily into *Gerbera hybrida*: differential effect on the expression of family members. *Molecular Breeding*, 2:41-50.
28. Truve, E., Nigul, L., Teeri, T.H. and Kelve, M. 1996: The effects of 2-5A on protein synthesis in wheat germ extracts and tobacco protoplasts. *Nucleos. Nucleot.*, 15:1097-1111.
29. Helariutta, Y., Kotilainen, M., Elomaa, P., Kalkkinen N., Bremer, K., Teeri, T.H. and Albert, V. 1996: Duplication and functional divergence in the chalcone synthase gene family of Asteraceae: evolution with substrate change and catalytic simplification. *Proc. Natl. Acad. Sci. U.S.A.*, 93:9033-9038.
30. Kervinen, T., Peltonen, S., Utriainen, M., Kangasjärvi, J., Teeri, T.H. and Karjalainen, R. 1997. Cloning and characterization of cDNA clones encoding phenylalanine ammonia-lyase in barley. *Plant Science*, 123:143-150.
31. Kervinen, T., Peltonen, S., Teeri, T.H. and Karjalainen, R. 1998: Differential expression of phenylalanine ammonia-lyase genes in barley induced by fungal infection or elicitors. *New Phytol.*, 139:293-300.
32. Elomaa, P., Mehto, M., Kotilainen, M., Helariutta, Y., Nevalainen, L. and Teeri, T.H. 1998: A bHLH transcription factor mediates organ-, region- and flower type specific signals on dihydroflavonol-4-reductase (dfr) gene expression in the inflorescence of *Gerbera hybrida* (Asteraceae). *Plant J.*, 16:93-99.
33. Eckermann, S., Schröder, G., Schmidt, J., Strack, D., Edrada, R.A., Helariutta, Y., Elomaa, P., Kotilainen, M., Kilpeläinen, I., Proksch, P., Teeri, T.H. and Schröder, J. 1998: New pathway to polyketides in plants. *Nature*, 396:387-390.
34. Yu, D., Kotilainen, M., Pöllänen, E., Mehto, M., Elomaa, P., Helariutta, Y., Albert, V.A. and Teeri, T.H. 1999: Organ identity genes and modified patterns of flower development in *Gerbera hybrida* (Asteraceae). *Plant J.*, 17:51-62.
35. Jouhikainen, K., Lindgren, L., Jokelainen, T., Hiltunen, R., Teeri, T.H. and Oksman-Caldentey, K.-M. 1999: Enhancement of scopolamine production in *Hyoscyamus muticus* L. hairy root cultures by genetic engineering. *Planta*, 208:545-551.
36. Kotilainen, M., Helariutta, Y., Mehto, M., Pöllänen, E., Albert, V.A., Elomaa, P. and Teeri, T.H. 1999: GEG participates in the regulation of cell and organ shape during corolla and carpel development in *Gerbera hybrida*. *Plant Cell*, 11:1093-1104.
37. Helenius, E., Boije, M., Niklander-Teeri, V., Palva, E.T. and Teeri, T.H. 2000: Gene delivery into intact plants using the Helios(TM) gene gun. *Plant Mol. Biol. Reporter*, 18:287a-287l.
38. Kotilainen, M., Elomaa, P., Uimari, A., Albert, V., Yu, D., and Teeri, T.H. 2000: GRCD1, an AGL2-like MADS box gene, participates in the C function during stamen development in *Gerbera hybrida*. *Plant Cell*, 12:1893-1902.
39. Törmäkangas, K., Hadlington, J.L., Pimpl, P., Hillmer, S., Brandizzi, F., Teeri, T.H. and Denecke, J. 2001: A vacuolar sorting domain may also influence the way in which proteins leave the endoplasmic reticulum. *Plant Cell*, 13:2021-2032.
40. Gustafsson, M., Kärkönen, A., Simola, L., Teeri, T.H., Sipilä, J., Kilpeläinen, I. and Brunow, G. 2001: β -Fluoro-coniferyl alcohol does not inhibit lignin biosynthesis in suspension cultures of *Picea abies*. *Phytochemistry*, 58:243-248.

41. Kärkönen, A., Koutaniemi, S., Mustonen, M., Syrjänen, K., Brunow, G., Kilpeläinen, I., Teeri, T.H. and Simola, L.K. 2002: Lignification related enzymes in *Picea abies* suspension cultures. *Phys. Plantarum*, 114:343-353.
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