



บรรณานุกรม

- จีรวัฒน์ ภู่บัวเพื่อน. (2535). การเจริญเติบโตและการพัฒนาดอกของปทุมมา. วิทยานิพนธ์ วท.ม., มหาวิทยาลัยเชียงใหม่.
- นเรศ ดำรงชัย. (2543). ผลกระทบของ GMOs ข้อมูลทางวิทยาศาสตร์และข้อเสนอแนะเชิงนโยบาย. (พิมพ์ครั้งที่ 2). กรุงเทพฯ: โครงการศึกษานโยบายด้านเทคโนโลยีชีวภาพ ศูนย์พันธุ์วิศวกรรมและเทคโนโลยีชีวภาพแห่งชาติ (BIOTEC).
- สุรินทร์ ปิยะโชคณาภุล. (2539). พันธุ์วิศวกรรมเบื้องต้น. กรุงเทพฯ: ภาควิชาพันธุศาสตร์ คณะวิทยาศาสตร์ มหาวิทยาลัยเกษตรศาสตร์.
- อาจารย์ วรัญญาวนนก. (2541). การเพาะเลี้ยงเนื้อเยื่อเพื่อการปรับปรุงพันธุ์พืช. นครราชสีมา: สำนักวิชาเทคโนโลยีการเกษตร มหาวิทยาลัยเทคโนโลยีสุรนารี.
- Agarwal, S. et al. (2004). *Agrobacterium tumefaciens* mediated genetic transformation and regeneration of *Morus alba* L. Scientia Horticulturae, (100), 183 – 191.
- Aida, R. et al. (2000a). Copigmentation gives bluer flowers on transgenic torenia plants with the antisense dihydroflavonol-4-reductase gene. Plant Sci, (160), 49-56.
- Aida, R. et al. (2000b). Modification of flower colour in torenia (*Torenia fournieri* Lin.) by genetic transformation. Plant Sci, (153), 33-42.
- Akasaka-Kennedy, Y., Tomita, K.,& Ezuara, H. (2004). Efficient plant regeneration and *Agrobacterium*-mediated transformation via somatic embryogenesis in melon (*Cucumis melo* L.). Plant Sci, (166), 763-769.
- Almeida, J. et al. (1989). Genetic interactions underlying flower color patterns in *Antirrhinum majus*. Genes Dev, (3), 1758-1767.
- Aldemita, R.R.,& Hodges, T.K. (1996). *Agrobacterium tumefaciens* mediated transformation of indica and japonica rice varieties. Planta, (199), 612 -617.
- Anuntalabchchai, S. et al. (2001). Ion-beam-induced deoxyribose nucleic acid transfer. Applied Physics Letters, 78(16), 2393-2395.
- Arokiaraj, P. et al. (1998). CaMV 35S promoter directs β -glucuronidase expression in the latexiferous system of transgenic *Hevea brasiliensis* (rubber tree). Plant Cell Rep, (17), 621 - 625.

- Azmi, A. et al. (1997). Bud regeneration from *Eucalyptus globulus* clones and seedlings through hormonal imbalances induced by *Agrobacterium tumefaciens* strain 82.139. *Plant Sci.*, (127), 81 – 90.
- Belarmino, M.M., & Mii, M. (2000). *Agrobacterium* - mediated genetic transformation of a phalaenopsis orchid. *Plant Cell Rep.*, (19), 435-442.
- Boase, M.R., Butler, R.C., & Borst, N.K. (1998). Chrysanthemum cultivar- *Agrobacterium* interactions revealed by *GUS* expression time course experiments. *Sci. Hort.*, (77), 89-107.
- Bohm, B. (1998). *Introduction to flavonoids. Chemistry and biochemistry of organic natural product vol 2.* Amstcrdam: Harwood Academic.
- Bovy, A. et al. (2002). High-flavonol tomatoes resutlion from the heterologous expression of the maize transcription fater Genes *LC* and *C1*. *The Plant Cell*, (14), 2509 - 2526.
- Brettschneider, R., Becker, D., & Lorz, H. (1997). Efficient transformation of scutellar tissue of immature maize embryos. *TAG*, (94), 737-748.
- Cao, X. et al. (1998). GUS expression in blueberry (*Vaccinium* spp.): factors influencing *Agrobacterium* - Mediated gene transfer efficiency. *Plant Cell Rep.*, (18), 266 - 270.
- Cervera, M. et al. (1998). *Agrobacterium*-mediated transformation of citrange: factors affection Transformation and regeneration. *Plant Cell Rep.*, (18), 271 - 278.
- Chaudhury, A., Maheshwari, S.C., & Tyagi, A.K. (1995). Transient expression of *gus* gene in intact seed embryos of *Indica* rice after electroporation- mediated gene delivery. *Plant Cell Rep.*, (14), 215-220.
- Cheng, M. et al. (1997). Expression and inheritance of foreign genes in transgenic peanut plants generated by *Agrobacterium*-mediated transformation. *Plant Cell Rep.*, (16), 541 - 544.
- Cheng, M et al. (2001). Genetic Transformation of Wheat Mediated by *Agrobacterium tumefaciens*. *Plant Physiol.*, (115), 971 - 980.

- Chen, L. et al. 1998. A protocol for consistent, large-scale production of fertile transgenic rice plants. Plant Cell Rep., (18), 25-31.
- Christou, P. (1997). Rice transformation: bombardment. Plant Mol. Biol., (35), 197-203.
- Confalonieri, M. et al. (2000). Transformation of elite white poplar (*Pupulus alba* L.) cv. Villafranca and Evaluation of herbicide resistance. Plant Cell Rep., (19), 978 - 972.
- Conner, A.J., & Domisse, E.M. (1992). Monocotyledonous plants as hosts for *Agrobacterium*. Int. J. Plnt Sci., 135(4), 550-555.
- Cruz-Hernandez, A. et al. (1998). *Agrobacterium tumefaciens* mediated transformation of embryogenic avocado cultures and regeneration of somatic embryos. Plant Cell Rep., (17), 497 - 503.
- Dabauza, M. et al. (1997). Plant regeneration and *Agrobacterium*-mediated transformation of cotyledon explants of *Citrullus colocynthis* (L.) Schrad. Plant Cell Rep., (16), 888 - 892.
- Datta, K. et al. (2000). *Agrobacterium*-mediated engineering for sheath blight resistance of indica rice cultivars from different ecosystems. Theor Appl Genet., (100), 832-839.
- De Jong, W.S. et al. (2003). An allele of Dihydroflavonol 4-reductase associated with the ability to produce red anthocyanin pigments in potato (*Solanum tuberosum*). Theor Appl Genet., 107(8), 1375 - 1383.
- Elomaa, P. et al. (1993). *Agrobacterium*-mediated transfer of antisense chalcone synthase cDNA to *Gerbera hybrida* inhibits flower pigmentation. Bio/Technology, (11), 508 – 511.
- Elomaa, P., & Teeri, T.H. (2001). Transgenic Gerbera. Biotechnology in Agriculture and Forestry, (48), 139 – 154.
- Elomaa, P. et al. (2003). Activation of Anthocyanin Biosynthesis in *Gerbera hybrida* (Asteraceae) Suggests Conserved Protein- Protein and Protein-Promoter Interactions between the Anciently Diverged Monocots and Eudicots. Plant Physiology, (133), 1831-1842.

- Forkman, G., & Ruhnau, B. (1987). Distinct substrate specificit of ihydroflavonal 4-reductase from flower of *Petunia hybrida*. Z. Naturforsch, (42), 1146- 1148.
- Frame, R.B. et al. (2002). *Agrobacterium tumefaciens*-Mediated Transformation of Maize Embryos Using a Standard Binary Vector System. Plant Physiol, (129), 13 - 22.
- Franklin, G. & Sita, G.L. et al. (2003). Agrobacterium tumefaciens - mediated transformation off eggplant (*Solanum melongena L.*). Springer –Verlag:
Communicated by P. Kumar.
- Fukuoka, H. et al. (2000). Agrobacterium-mediated transformation of monocot and dicot plants using the NCR promoter derived from soybean chlorotic mottle virus. Plant Cell Rep, (19), 815 -820.
- Goldsbrough, A., Belzile, F., & Yoder, I.J. (1994). Complementation of the Tomato anthocyanin without (aw) Mutant Using the Dihydroflavonol 4-Reductase Gene. Plant Physiol, (105), 491 – 496.
- Gordon-Kamm, J.W. et al. (1990). Transformation of maize cells and regeneration of fertile transgenic plants. Plant Cell, (2), 603-618.
- Gross, J. (1987). Pigment in fruit. Academic Press. London. 303p.
- Gutierrez-E, M.A., Luth, D., & Moore, G.A. (1997). Factors affecting *Agrobacterium*-mediated transformation in *Citrus* and production of sour orange (*Citrus aurantium* L.) Plants expressing the ccat protein gene of citrus tristeza virus. Plant Cell Rep, (16), 745 - 753.
- Gutterson, N. et al. (1994). Modification of flower color in Florist's Chrysanthemum : Production of a white – flowering variety through molecular genetics. Bio/Technology, (12), 268-271.
- Harbone, JB.,& Williams C. (2000). Advances in flavonoid research since 1992. Phytochemistry, (55), 481-504.
- Hirsikorpi, M. et al. (2002). *Agrobacterium*- mediated transformation of round leaved sundew (*Drosera rotundifolia L.*). Plant Science, (162), 537-542.

- Helariutta, Y. et al. (1993). Cloning of cDNA coding for Dihydroflavonol 4- reductase (DFR) and characterization of *DFR* expression in corollas of *Gerbera*. *Plant Mol. Biol.*, 22(2), 183-193
- Holton, T. (1996). Transgenic plants exhibiting altered flower color and methods for producing the same. *PCT-international patent Application*, (96), 36716.
- Holton, T.A., & Cornish, E.C. (1995). Genetic and biochemistry of anthocyanin biosynthesis. *The Plant Cell*, (7), 1071-1083.
- Ishida, Y. et al. (1996). High efficiency transformation of maize (*Zea mays*) mediated by *Agrobacterium tumefaciens*. *Nat Bio/Technol*, (14) 745 – 750.
- Jaakola, L. et al. (2002). Expression of genes involved in anthocyanin biosynthesis in relation to anthocyanin, proanthocyanidin and flavonol levels during Bilberry fruit development. *(Plant Physiol)*, (130), 729-739.
- Jan de Jong. et al. (1995). *Agrobacterium*-mediated Transformation of Chrysanthemum. *Plant Tissue Culture and Biotechnology*. 1No.1: 38 - 42.
- Jefferson, R.A., Kavanagh, R.A., & Bevan, M.W. (1987). GUS fusion β -glucuronidase as a sensitive and versatile gene fusion marker in higher plants. *EMBO*, 6(13): 3901-3907.
- Jofre-Garfias, A. E. et al. (1997). *Agrobacterium*-mediated transformation of *Amaranthus hypochondriacus*: light-And tissue-specific expression of a pea chlorophyll a/b-binding protein promoter. *Plant Cell Rep.* (16), 847 –852.
- Kamm, J.W. et al. (1990). Transformation of maize cells and regeneration of fertile transgenic plants. *Plant Cell*, (2), 603-618.
- Kamo, K. et al. (1997). Factors affecting *Agrobacterium tumefaciens*-mediated *gusA* expression and opine synthesis in *Gladiolus*. *Plant Cell Rep.*, (16), 389 - 392.
- Ke, J. et al. (2001). High-efficiency gene transfer to recalcitrant plants by *Agrobacterium tumefaciens*. *Plant Cell Rep.*, (20), 150-156.

- Knoll, K.A. et al. (1997). Shoot regeneration from cultured root explants of spinach (*Sponacia oleracea* L.) : a system for *Agrobacterium* transformation. Plant Cell Rep., (17), 96 - 101.
- Koprek, T. et al. (1996). Fertile transgenic barley of different cultivars obtained by adjustment of bombardment conditions to tissue response. Plant Sci., (119), 79-91.
- Koroch, A. et al. (2002). In Vitro Regeneration and *Agrobacterium* Transformation of *Echinacea purpurea* Leaf Explants. ASHS Press, Alexandra, (VA), 522-526.
- Kurshinov, V. et al. (1999). Agrobacterium tumefaciens-mediated transformation of greenhouse-grown *Brassica rapa* ssp. *Oleifera*. Plant Cell Rep., (18), 773 - 777.
- Kushikawa, S., Hoshino, Y., & Mii, M. (2001). Agrobacterium – mediated transformation of *Saintpaulia ionantha* Wendl. (Plant Sci.), (161), 953 – 960.
- Ledger, S.E. et al. (1997). Transformation of lisianthus (*Eustoma grandiflorum*). Plant Cell Rep., (16), 853 - 858.
- Liau, C.H. et al. (2003). *Agrobacterium tumefaciens*-mediated transformation of an *Oncidium* Orchid. Plant Cell Rep., (21), 993 -998.
- Libiakova, G. et al. (2000). Efficiency of an intron-containing kanamycin resistance gene as selectable marker in plant transformation. Plant Cell Rep., (20), 610-615.
- Liew, C.F. et al. (1998). The isolation, molecular characterization and expression of dihydroflavonol 4-reductase cDNA in the orchid , *Bromheadia finlaysoniana*. Plant Sci., (135), 161-169.
- Li, L. et al. (1993). An improved rice transformation system using the biolistic method. Plant Cell Rep., (12), 250-255.
- Liu, D. et al. (2001). Engineering Variegated Floral Patterns in Tobacco Plants Using the *Araidopsis* Transposable Element *Tag1*. Plant Cell Physiol., 42(4), 419 - 423.
- Lo Piero et al. (2006). Gene characterization, analysis of expression and in vitro synthesis of Dihydroflavonol 4-reductase from *Citrus sinnensis*. Phytochemistry, 67(7), 684 - 695.

- Martin, C.R. (1993). Structure, function, and regulation of the chalcone synthase.
International Review of Cytology : A survey of Cell Biology (K.Jeon and
J.Jarvik,eds.). New York: Academic Press.
- Mathews, H. et al. (2003). Activation Tagging in Tomato Identifies a Transcriptional
 Ragulator of Anthocyanin Biosynthesis, Modification, and Transport. The Plant
Cell, (15), 1689 - 1703.
- McBride K.E., & Summerfelt K.R. (1990). Improved binary vectors for *Agrobacterium*-
 mediated plant transformation. Plant Mol Biol, (14), 269 – 276.
- Miguel, C.M., & Oliveira, M.M. (1999). Transgenic almond (*Prunus dulcis* Mill.) plants
 obtained by *Agrobacterium*-mediated transformation of leaf explants. Plant Cell
Rep, (18), 387 - 393.
- Mol, J., Grotewold, E., & Koes, R. (1998). How genes paint flowers and seeds. Trends in
plant Sci, 3(6), 212-217.
- Nakatsuka, A. et al. (2003). Spatial and temporal expression of Chalcone synthase and
 Dihydroflavonol 4-reductase (DFR) gene in the Asiatic hybrid lily. Plant Sci,
 165(4), 759-767.
- Napoli, C., Lemieux, C., & Jorgensen, R. (1990). Introduction of a chimeric chalcone
 synthase gene into petunia results in reversible co-suppression of homologous
 genes *in trans*. Plant Cell, (2), 279-289.
- Narasimhulu, B. et al. (1996). Early Transcription of Agrobacterium T-DNA
 Genes in Tobacco and Maize. The Plant Cell, (8), 873 - 886.
- Nisha, K.K. et al. (2003). *Agrobacterium tumefaciens*-mediated transformation of
 Brahmi [*Bacopa monniera* (L.) Wettst.], a popular medicinal herb of India.
Current Science, 85(1), 85 - 89.
- Niu, X. et al. (1998). Transgenic peppermint (*Mentha x piperita* L.) plants obtained by
 cocultivation with *Agrobacterium tumefaciens*. Plant Cell Rep, (17), 165 - 171.
- Noda, N. et al. (2004). Regulation of gene expression involved in flavonol and
 anthocyanin biosynthesis during petal development in lisianthus (*Eustoma*
grandiflorum). Physio. Plantarum, (122), 305 - 313.

- Park, S.H. et al. (2000). Shorter T-DNA or additional virulence genes improve *Agrobacterium* - mediated transformation. *Theor Apple Genet*, (101), 1015 - 1020.
- Peter, B. et al. (1999). Natural Products from Plants, CRS press LLC, (22), 23.
- Peterman, T.K. & Melan, M.A. (1997). *Agrobacterium* -Medisted transformation of tobacco. n.p.: Plant Genetic Engineering.
- Polashock, j.j. et al. (2002). Cloning of a cDNA encoding the cranberry Dihydroflavonol 4-reductase (DFR) and expression in transgenic tobacco. *Plant Sci*, 163(2), 241-251.
- Rashid, H. et al. (1996). Transgenic plant production mediated by *Agrobacterium* in *Indica* rice. *Plant Cell Rep*, (15), 727-730.
- Ray, H. et al. (2003). Expression of Anthocyanins and Proanthocyanidins after Transformation of Alfalfa with Maize *Lc*. *Plant Physiol*, (132), 1448 – 1463.
- Rosati, C., Duron, M., Cadic, A., & Simmoneau, P. (2000). Transformation of forsythia x intermedia cv. Spring Glory with two flavonoid pathway genes leads to anthocyanin synthesis in petals at early flowering stages. *Polypheols Commun*, (1), 57-58.
- Scott, M., Amy, A., & Gregory J. (2001). POST-TRANSCRIPTIONAL GENE SILENCING BY DOUBLE-STRANDED RNA. *Nature Reviews Genetics*, (2), 110-119.
- Shimada, Y. et al. (2001). Genetic engineering of the anthocyanin biosynthetic pathway with flavonoid-3',5'- hydroxylase : specific switching of the pathway in petunia. *Plant Cell Rep*, (20), 456-462.
- Sita, G. et al. (1998). Timentin as an alternative antibiotic for suppression of *Agrobacterium tumefaciens* in genetic transformation. *Plant Tissue Culture and Biotechnology*, 4(3-4), 189 - 195.
- Sparvoli et al. (1994). Cloning and molecular analysis of structural genes involved in flavonoid and stilbene biosynthesis in grape (*Vitis vinifera*). *Plant Mol Biol*, 24(5), 743 – 755.

- Spelt, C. et al. (2000). *Anthocyanin1* of Petunia Encodes a Basic Helix-Loop-Helix Protein That Directly Activates Transcription of Structural Anthocyanin Genes. The Plant Cell, (12), 1619 - 1631.
- Stummer, B.E., Smith, S.E. & Laugridge, P. 1995. Genetic transformation of *Verticordia grandis* (Myrtaceae) using wild-type *Agrobacterium rhizogenes* and binary *Agrobacterium* Vectors. Plant Sci, (111), 51-62.
- Suzuki, K. et al. (2000). Flower color modifications of *Torenia hybrida* by co-suppression of anthocyanin biosynthesis genes. Mol. Breed. (6), 239 -246.
- Suzuki, S., & Nakano, M. (2002). *Agrobacterium*-mediated production of transgenic plants of *Muxcari armeniacum* Leightl. ex Bak. Plant Cell Rep, (20), 835 - 841.
- Tanaka, Y. et al. (1995). Molecular cloning and characterization of *Rosa hybrida* Dihydroflavonol 4-reductase gene. Plant Cell Physiol, 36(6), 1023 – 1031.
- Tanaka, Y. et al. (1996). Molecular and biochemical characterization of three anthocyanin synthetic enzyme from *Gentiana triflora*. Plant Cell Physiol, 37(5), 711 – 716.
- Tang, H., Ren, Z.,& Krczal, G. (2000). An evaluation of antibiotics for the elimination of *Agrobacterium tumefaciens* from walnut somatic embryos and for the effects on the proliferation of somatic Embryos and regeneration of transgenic plants. Plant Cell Rep, (19), 881 -887.
- Tang, K. et al. (1999). Particle-bombardment-mediated co-transformation of elite Chinese rice cultivars with genes conferring resistance to bacterial blight and sap-sucking insect pests. Planta, (208), 552-563.
- Tozzini, A.C. et al. (2000). Semi - quantitative detection of genetically modified grains based on CaMV 35S promoter amplification. EJB, 3(2)
- Ueyama, Y. et al. (2002). Molecular and biochemical characterization of *Torenia* flavonoid 3'-hydroxylase and flavone synthase II and modification of flower color by modulating the expression of these genes. Plant Sci, (163), 253 - 263.
- Van der krol, A.R. et al. (1990). Flavonoid Gene in Petunia: Addition of a Limited Number of Gene Copies May Lead to a Suppression of Gene Expression. The Plant Cell, (2), 291-299.

- Wang, M.B. et al. (1997). Intron-mediated improvement of a selectable marker gene for plant transformation using *Agrobacterium tumefaciens*. *J. Genet. & Breed.*, (51), 165-171.
- Wang, Z.Y., & Ge, Y. (2005). Agrobacterium -mediated high efficiency transformation of tall fescue (*Festuca arundinacea*) *Journal of Plant Physiol.*, (162), 103-113.
- Wated, A.A. et al. (1998). Microprojectile bombardment-mediated transformation of *Lilium longiflorum*. *Plant Cell Rep.*, (17), 262-267.
- Weising, K., & Kahl, G. (1996). Natural genetic engineering of plant cells: the molecular biology of crown gall and hairy root disease. *World Journal of Microbiology & Biotechnology*, (12), 327-351.
- Weissinger, A.K. (1992). Physical methods for plant transfer. *Biotechnology and crop improvement in Asia*, (213), 233.
- Xie, D.Y. et al. (2004). Molecular and Biochemical Analysis of Two cDNA Clones Encoding Dihydroflavonol-4-Reductase from *Medicago truncatula*. *Plant Physiol.*, (134), 979 – 994.
- Yang, J. et al. (1999). Genetic transformation of *Cymbidium* orchid by particle bombardment. *Plant Cell Rep.*, (18), 978-984.
- Yang, Z.N. et al. (2000). *Agrobacterium* – mediated transformation of commercially important grapefruit cultivar Rio Red (*Citrus paradisi* Macf.). *Plant Cell Rep.*, (19), 1203 – 1211.
- Yan, L. et al. (2001). Co-suppression in transgenic *Petunia Hybrida* expression chalcone synthase A (*ChsA*). *Science in China*, 44(6), 661 - 668.
- Yu, Z. et al., (1993). Transfering of *GUS* gene into intact rice cell by low energy ion beam. *Nucl. Instr. Meth. B*, 80(81), 1328-1331.
- Zapata, C. et al. (1999). Transformation of a Texas cotton cultivar by using *Agrobacterium* and the shoot Apex. *Theor Apple Genet*, (98), 252 – 256.
- Zhang, F.L. et al. (2000). Agrobacterium-mediated transformation of cotyledonary explants of Chinese Cabbage (*Brassica campestris* L. ssp. *Pekinensis*). *Plant Cell Rep.*, (19), 569 – 575.