

Refereed publications of John D. Hamill

1. Patnaik G, Cocking E.C, Hamill, J.D., Pental D. (1982)
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2. Hamill J.D, Pental D.,Cocking E.C., Müller A.J. (1983)
Production of a nitrate reductase deficient streptomycin resistant double mutant of *Nicotiana tabacum* for somatic hybridization studies. *Heredity* **50** : 197-200
3. Hamill, J.D., Patnaik, G. Pental D., Cocking E.C. (1984)
The culture of manually isolated heterokaryons of *Nicotiana tabacum* and *Nicotiana rustica*. *Proceedings of Indian Academy of Science (Plant Science)* **93** : 317-327
4. Hamill, J.D., Pental D., Cocking E.C. (1984)
The combination of a nitrate reductase deficient nuclear genome with a streptomycin resistant chloroplast genome in *Nicotiana tabacum* by protoplast fusion. *Journal of Plant Physiology* **115** : 253-261
5. Pental D., Hamill J.D., Cocking E.C. (1984) Somatic hybridization using a double mutant of *Nicotiana tabacum*. *Heredity* **53** : 79-83
6. Hamill, J.D., Pental D., Cocking E.C. (1985)
Analysis of fertility in somatic hybrids of *Nicotiana tabacum* and *Nicotiana rustica* and progeny over two generations. *Theoretical & Applied Genetics* **71** : 487-490
7. Pental, D., Hamill, J.D., Pirrie, A., Cocking, E.C. (1986).
Somatic hybridization between *Nicotiana tabacum* and *Petunia hybrida*. Recovery of plants with *P. hybrida* nuclear genome and *N. tabacum* chloroplast genome. *Molecular & General Genetics* **202** : 342-347.
8. Hamill, J.D., Cocking, E.C. (1986).
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9. Hamill, J.D., Parr, A.J., Robins, R.J., Rhodes, M.J.C. (1986).
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10. Hamill, J.D., Ahuja, P.S., Davey, M.R., Cocking, E.C. (1986).
Protoplast derived streptomycin resistant plants of the forage legume *Onobrychis viciifolia* Scop. (sainfoin). *Plant Cell Reports* **5** : 439-441.
11. Hamill, J.D., Watts, J.W., King, J.M. (1987).
Somatic hybridization between *Nicotiana tabacum* and *Nicotiana plumbaginifolia* by electrofusion of mesophyll protoplasts. *Journal of Plant Physiology* **129** : 111-118.

12. Hamill, J.D., Parr, A.J., Robins, R.J., Rhodes, M.J.C. (1987)
New routes to plant secondary products. *Bio/Technology* (subsequently *Nature : Biotechnology*) **5** : 800-804
13. Parr, A.J., Hamill, J.D. (1987).
Relationships between the biosynthetic capacities of *Agrobacterium rhizogenes* transformed hairy roots and intact, uninfected plants of *Nicotiana* species. *Phytochemistry* **26** : 3241-3245.
14. Furze, J., Hamill, J.D., Parr, A.J., Robins, R.J., Rhodes, M.J.C. (1987).
Evaluation of the variability found in hairy root cultures of *Nicotiana rustica* after regeneration from protoplasts. *Journal of Plant Physiology* **131** : 237-246.
15. Payne, J., Hamill, J.D., Robins, R.J. and Rhodes M.J.C. (1987).
Production of hyoscyamine by hairy root cultures of *Datura stramonium*. *Planta Medica* **53** : 474-478
16. Hamill, J.D., Prescott, A., Martin, C. (1987).
Assessment of the efficiency of co-transformation by the T-DNA of disarmed binary vectors derived from *Agrobacterium tumefaciens* and the T-DNA from *A. rhizogenes*. *Plant Molecular Biology* **9** : 573-584.
17. Hamill, J.D., Mariotti, D. (1987).
Factors affecting chlorate sensitivity in cell cultures of *Medicago sativa*. *Journal of Plant Physiology* **128** : 425-432.
18. Aird, E.L.H., Hamill, J.D., Rhodes, M.J.C. (1988).
Cytogenetic analysis of hairy root cultures from a number of plant species transformed by *Agrobacterium rhizogenes*. *Plant Cell, Tissue and Organ Culture* **15** : 47-57.
19. Parr, A.J., Peerless, A.C.J., Hamill, J.D., Walton, N.J., Robins, R.J., Rhodes, M.J.C. (1988).
Alkaloid production by transformed root cultures of *Catharanthus roseus*. *Plant Cell Reports* **7** : 309-312.
20. Hamill, J.D., Rhodes, M.J.C. (1988).
A spontaneous, light independent and prolific plant regeneration response from hairy roots of *Nicotiana glauca* transformed by *Agrobacterium rhizogenes*. *Journal of Plant Physiology*. **133** : 506-509.
21. Hamill, J.D., Robins, R.J., Rhodes, M.J.C. (1989).
Alkaloid production by transformed root cultures of *Cinchona ledgeriana*. *Planta Medica* **55** : 354-357.
22. Spencer, A., Hamill, J.D., Rhodes, M.J.C. (1990).
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23. Hamill, J.D., Robins, R.J., Parr, A.J., Furze, J., Evans, D.J., Rhodes, M.J.C. (1990).
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24. Benson, E., Hamill, J.D. (1991).
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25. Robins, R.J., Hamill, J.D., Bent, E.G., Evans, D.M. (1991).
A rapid and quantitative method for the determination of chloramphenicol-3-O-acetyltransferase activity in transgenic plants. *Methods in Molecular and Cellular Biology* **2** : 91-94.
26. Robins, R.J., Walton, N.J., Hamill, J.D., Parr, A.J., Rhodes, M.J.C. (1991).
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27. Hamill, J.D., Rounsley, S., Spencer, A., Todd, G., Rhodes, M.J.C. (1991).
The polymerase chain reaction in plant transformation studies. *Plant Cell Reports* **10** : 221-224.
28. Spencer, A., Hamill, J.D., Rhodes, M.J.C. (1992).
In vitro biosynthesis of monoterpenes by *Agrobacterium* transformed shoot cultures of two *Mentha* species. *Phytochemistry* **32** : 911-919.
29. Hamill, J.D. (1993).
Alterations in auxin and cytokinin metabolism of higher plants due to expression of specific genes from pathogenic bacteria. *Australian Journal of Plant Physiology* **20**:405-424.
30. Kuang, J., Gaff, D.F., Gianello, R.D., Blomstedt, C.K., Neale, A.D., Hamill, J.D. (1995)
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31. Lidgett, A.J., Moran, M., Wong, K.A.L., Furze, J., Rhodes, M.J.C., Hamill, J.D. (1995).
Isolation and expression of pattern of a cDNA encoding a cathepsin B-like protease from *Nicotiana rustica*. *Plant Molecular Biology* **29** : 379-384.
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33. Subroto, M.A., Hamill, J.D. and Doran, P.M. (1995).
Growth kinetics and stoichiometry of *Mentha citrata* shooty teratomas transformed by *Agrobacterium tumefaciens*. *Biotechnology Letters* **17** : 427-432.
34. Subroto, M.A., Hamill, J.D. and Doran, P.M. (1996).
Development of shooty teratomas from several solanaceous plants: growth kinetics, stoichiometry and alkaloid production. *Journal of Biotechnology* **45** : 45-57.
35. Subroto, M.A., Kwok, K.H., Hamill, J.D. and Doran, P.M. (1996).

- Coculture of genetically transformed roots and shoots for synthesis, translocation and biotransformation of secondary metabolites. *Biotechnology and Bioengineering* **49** : 481-494.
36. Ng, A., Blomstedt, C.K., Gianello, R., Neale, A.D., Hamill, J.D. and Gaff, D. (1996).
A lowly expressed cDNA from *Sporobolus stapfianus* encoding a sulphate transporter protein. *Plant Physiology* **111** : 651.
37. Blomstedt C.K., Gianello R.D., Hamill J.D., Neale A.D. and Gaff D.F (1998).
Drought-stimulated genes correlated with desiccation tolerance of the resurrection grass *Sporobolus stapfianus*. *Plant Growth Regulation* **24** : 153-161.
38. Blomstedt, C., Gianello, R., Hamill, J.D., Gaff, D. and Neale, A. (1998).
Differential gene expression in desiccation-tolerant and desiccation-sensitive tissue of the resurrection grass *Sporobolus stapfianus*. *Australian Journal of Plant Physiology* **28** : 937-946
39. Bandyopadhyay, S., Cane, K., Rasmussen, G and Hamill, J.D. (1999)
Efficient plant regeneration from seedling explants of two commercially important temperate eucalypt species - *Eucalyptus nitens* and *E. globulus*. *Plant Science* **140** : 189-198
40. Neale, A.D., Blomstedt, C.K., Bronson, P., Le, T.-N., Guthridge, K., Evans, J., Gaff, D.F. and Hamill, J.D. (2000)
The isolation of genes from the resurrection grass *Sporobolus stapfianus* which are induced during severe drought stress. *Plant Cell and Environment* **23** : 265-277
41. Bandyopadhyay, S. and Hamill, J.D.(2000)
Ultrastructural studies of somatic embryos of *Eucalyptus nitens* and comparisons with zygotic embryos found in mature seeds *Annals of Botany* **86** : 237-244
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Molecular Characterisation of Quinolinic Acid Phosphoribosyltransferase (QPRTase) in *Nicotiana*. *Plant Molecular Biology* **44** : 603 – 617
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Antisense-mediated down-regulation of putrescine N-methyltransferase activity in transgenic *Nicotiana tabacum* L. can lead to elevated levels of anatabine at the expense of nicotine. *Plant Molecular biology* **53** : 87-105
44. Sinclair, S.J., Johnson R and Hamill J.D. (2004)
Analysis of wound-induced gene expression in *Nicotiana* species with contrasting alkaloid profiles. *Functional Plant Biology* **31** : 721-729
45. Cane K.A., Mayer M., Lidgett A.J., Michael. A.J. and Hamill J.D. (2005)
Molecular analysis of alkaloid metabolism in *AABB v aabb* genotype *Nicotiana tabacum* in response to wounding of aerial tissues and methyljasmonate treatment of cultured roots. *Functional Plant Biology* **32** : 305 - 320

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- III. Hamill, J.D. (1988). Plant genetic transformation methods. In :- *Manipulating secondary metabolism in culture*. Robins, R.J., Rhodes, M.J.C. (eds) Cambridge University Press pp 114-122.
- IV. Hamill, J.D., Evans, D., Robins, R.J., Rhodes, M.J.C., Prescott, A., Martin, C. (1988). Foreign gene insertion into hairy roots with binary vectors and *Agrobacterium rhizogenes*:- potential for genetic manipulation of plant secondary metabolism in culture. In :- Robins, R.J., Rhodes, M.J.C. (eds) Cambridge University Press pp 145-153.
- V. Draper, J., Scott, R., Hamill, J.D. (1988). Transformation of dicotyledonous plants using the Ti plasmid of *Agrobacterium tumefaciens* and the Ri plasmid of *A. rhizogenes*. In:- *Plant genetic transformation and gene expression - A laboratory manual*. Draper, J., Scott, R., Armitage, P., Walden, R. (eds). Blackwell Scientific Publications, Oxford, Edinburgh, Boston, Melbourne pp 69-190.
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- VIII. Spencer, J.A., Hamill, J.D., Reynolds, J., Rhodes, M.J.C. (1990). Production of terpenes by transformed differentiated shoot cultures of *Mentha piperita citrata* and *M. piperita vulgaris*. In:- *Progress in Plant Cellular and Molecular Biology: Current Plant Science and Biotechnology in Agriculture*. Nijkamp, H.J.J., Van der Plas, L.H.W., Van Aartrijk, J. (eds). Kluwer Academic Publishers, pp. 619-624.
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- XIX. Hamill, J.D. (1999) (i) Gene regulation during development (section 10.3.3.a. pp 332 – 333); (ii) Gene expression modified by external factors (section 10.3.4. pp 335 – 336), (iii) Modified genomes : genetic engineering (section 10.4.1. pp 339 – 349).
In :- Plants in Action – Adaption in nature, performance in culture.
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- XX. Gianello, R.D., Kuang, J., Gaff, D.F., Ghasempour, H.R., Blomstedt, C.K., Hamill, J.D. and Neale, A.D. (1999). Proteins correlated with desiccation tolerance in a resurrection grass *Sporobolus stapfianus*. In:- Plant responses to environmental stress. Smallwood, M.F., Calvert, C.M. and Bowles, D.J. (eds) BIOS Scientific Publishers, Oxford; 1999; pp 161 - 166