

## Dr Robert B. Mellor. Publication List

### Full Scientific Publications

1. Mellor, R.B., L. Bowden and J.M. Lord: Glycoproteins of the glyoxysomal matrix. *FEBS Lett.*, 90, 275-278 (1978).
2. Mellor, R.B. and J.M. Lord: Incorporation of D(<sup>14</sup>C) galactose into organelle glycoprotein in castor bean endosperm. *Planta*, 141, 329-332 (1978).
3. Mellor, R.B. and J.M. Lord: Formation of lipid-linked mono- and oligosaccharides from GDP-mannose by castor bean endosperm homogenates. *Planta*, 146, 91-99 (1979).
4. Mellor, R.B. and J.M. Lord: Subcellular localization of mannosyltransferase and glycoprotein biosynthesis in castor bean endosperm. *Planta*, 146, 147-153 (1979)
5. Mellor, R.B., L.M. Roberts and J.M. Lord: Glycosylation of exogenous protein by endoplasmic reticulum membranes from castor bean endosperm. *Biochem. J.*, 182, 629-631 (1979).
6. Mellor, R.B. and J.M. Lord: Involvement of a lipid-linked intermediate in the transfer of galactose from UDP (<sup>14</sup>C) galactose to exogenous protein in castor bean endosperm homogenates. *Planta* 147, 89-96 (1979).
7. Mellor, R.B.: Glycoprotein biosynthesis in castor bean endosperm. MPhil thesis, University of Bradford (1979).
8. Mellor, R.B., T. Krusius and J.M. Lord: Analysis of glycoconjugate saccharides in organelles isolated from castor bean endosperm. *Plant Physiol.*, 65, 1073-1075 (1980).
9. Roberts, L.M., R.B. Mellor and J.M. Lord: Glycoprotein fucosyltransferase in the endoplasmic reticulum of castor bean endosperm cells. *FEBS Lett.*, 113, 90-94 (1980).
10. Mellor, R.B., L.M. Roberts and J.M. Lord: N-acetyl glucosamine transfer reactions and glycoprotein biosynthesis in castor bean endosperm. *J Exp. Bot.*, 31, 993-1003 (1980).
11. Mellor, R.B., G.M. Gadd, P. Rowell and W.D.P. Stewart: A phytohaemagglutinin from the *Azolla-Anabaena* symbiosis. *Biochem. Biophys. Res. Commun.*, 99, 1348-1353 (1981).
12. Mellor, R.B., P. Rowell and W.D.P. Stewart: Non-random distribution of the lectin in the *Azolla-Anabaena* symbiosis. In; *Lectins, Biology, Biochemistry and Clinical Biochemistry 2*, ed. T.C. Bøgg-Hansen, W. de Gruyter, Berlin. p105-112 (1982).
13. Mellor, R.B., S. Bassarab, W. Dittrich and D. Werner: EPS and LPS from Nod+Nif+ and Nod+Fix- *Rhizobium japonicum* and bacteroids. *FEMS Microbiol.Lett.*, 19, 239-242 (1983).
14. Mellor, R.B., E. Mörschel and D. Werner: Legume root response to symbiotic infection: Enzymes of the peribacteroid space. *Z. Naturforsch.*, 39, 123-125 (1984).
15. Bassarab, S., W. Dittrich, R.B. Mellor and D. Werner: Soybean root response to infection by *Rhizobium japonicum*: Saccharidases in root and nodule tissue. *Physiol. Plant Pathol.*, 24, 9-16 (1984).
16. Mellor, R.B., W. Dittrich and D. Werner: Soybean root response to infection by *Rhizobium japonicum*: Mannoconjugate turnover in effective and ineffective nodules. *Physiol. Plant Pathol.*, 24, 61-76 (1984).

17. Mellor, R.B., T.M.I.E. Christensen, S. Bassarab and D. Werner: Phospholipid transfer from the ER to the peribacteroid membrane in soybean nodules. *Z. Naturforsch.*, 40, 73-79 (1985).
18. Werner, D., E. Mörschel, R.B. Mellor and S. Bassarab: The host cell nucleus orientated lysis of bacteroids in an ineffective (Fix-) type of *Glycine max* nodule. *Planta* 162, 8-16 (1984).
19. Werner, D., T.M.I.E. Christensen, R.B. Mellor and E. Mörschel: Glycosyltransferases and the peribacteroid membrane in soybean nodules. In: Analysis of plant genes involved in the legume-Rhizobium interaction. OECD Paris. (1984).
20. Werner, D., R.B. Mellor, S. Bassarab and W. Dittrich: *Glycine max* root response to symbiotic infection. *Endocytobiology* 2, 585-586 (1985).
21. Mellor, R.B. and D. Werner: Glycoconjugate interactions in soybean root nodules. In: Lectins, Biology, Biochemistry and Clinical Biochemistry 4, ed, T.C. Bøg-Hansen, W. de Gruyter, Berlin, p 267-276 (1985).
22. Werner, D., R.B. Mellor, M.G. Hahn and H. Grisebach: Soybean root response to symbiotic infection: Glyceollin accumulation in an ineffective type of nodule with an early loss of the peribacteroid membrane. *Z. Naturforsch.*, 40, 171-181 (1985).
23. Mellor, R.B., T.M.I.E. Christensen and D. Werner: Choline kinase II is present only in nodules that synthesize stable peribacteroid membranes. *Proc. Natl. Acad. Sci. USA* 83, 659-663 (1986).
24. Ostrowski, E.D., R.B. Mellor and D. Werner: Colloid gold induced density shift as a plasma membrane marker in symbiotic and non-symbiotic *Glycine max* root cells. *Physiol. Plant*, 66, 270-276 (1986).
25. Bassarab, S., R.B. Mellor and D. Werner: Initial studies on a novel lectin affinity method for the purification of plasma membrane from soybeans. In: Lectins, Biology, Biochemistry and Clinical Biochemistry 5, ed, T.C. Bøg-Hansen, W de Gruyter, Berlin, p 565-572 (1986).
26. Bassarab, S., R.B. Mellor and D. Werner: Evidence for two types of Mg<sup>++</sup> ATPase in the peribacteroid membrane from *Glycine max* root nodules. *Endocyt. C. Res.* 3, 189-196, (1986).
27. Mellor, R.B. and D. Werner: The fractionation of *Glycine max* root nodule cells: A methodological overview. *Endocyt. C. Res.*, 3, 317-336 (1986).
28. Kinnback, A., R.B. Mellor and D. Werner: Alpha-mannosidase isoenzyme II in the peribacteroid space of *Glycine max* root nodules. *J Exp. Bot.*, 38, 1373-1377 (1987).
29. Mellor, R.B. and D. Werner: Pea and peanut lectins as markers in subcellular fractionation: Differentiation between ER and Golgi membranes. In: Lectins, Biology, Biochemistry and Clinical Biochemistry 6, ed, T.C. Bøg-Hansen. Sigma Handbooks p 551-557 (1988).
30. Mellor, R.B., H. Thierfelder, G. Pausch and D. Werner: Occurrence of choline kinase II in the cytoplasm of soybean root nodules infected with various strains of *Bradyrhizobium japonicum*. *J Plant Physiol.*, 128, 169-172 (1987).
31. Mellor, R.B. and D. Werner: Peribacteroid membrane biogenesis in mature legume root nodules. *Symbiosis*, 3, 75-100 (1987).
32. Werner, D., E. Mörschel, C. Garbers, S. Bassarab and R.B. Mellor: Particle density and protein composition of the peribacteroid membrane from soybean root nodules is affected by mutations in the microsymbiont *Bradyrhizobium japonicum*. *Planta*, 174, 263-270 (1988).

33. Garbers, C., R. Meckbach, R.B. Mellor and D. Werner: Protease (thermolysin) inhibition activity in the peribacteroid space of *Glycine max* root nodules. *J Plant Physiol.*, 132, 442-445 (1988).
34. Wolff, A., E. Mörschel, C. Zimmermann, M. Parniske, S. Bassarab, R.B. Mellor and D. Werner: Peribacteroid membrane stability and phytoalexin production in legume root nodules. In: *Physiological limitations and the genetic improvement of symbiotic nitrogen fixation*. ed, F. O'Gara, S. Manian and J.J. Devron. Kluwer, Dordrecht, p 65-74 (1988).
35. Mellor, R.B. and D. Werner: Legume nodule biochemistry and function. In, *Molecular Biology of Symbiotic Nitrogen Fixation*. ed, P.M. Gresshoff, CRC Press, Boca Raton. p 111-130 (1990).
36. Werner, D., S. Bassarab, C. Humbeck, R. Kape, A. Kinnback, R.B. Mellor, E. Mörschel, M. Parniske, G. Pausch, M. Röhm, S. Schenk, H. Thierfelder, M. Thynn, A. Wetzel, and A. Wolff: Nodule proteins and compartments. In: *Nitrogen Fixation, Hundred Years After*. eds H. Bothe, F. de Bruijn and W.E. Newton. Fischer, Stuttgart. p 507-516 (1988).
37. Mellor, R.B.: Distribution of trehalase in soybean root nodule cells: Implications for trehalose metabolism. *J Plant Physiol.*, 133, 173-177 (1988).
38. Mellor, R.B., C. Garbers and D. Werner: Peribacteroid membrane nodulin gene induction by *Bradyrhizobium japonicum* mutants. *Plant Molec. Biol.*, 12, 307-315 (1989).
39. Mellor, R.B.: Bacteroids in the Rhizobium-legume symbiosis inhabit a plant internal lytic compartment: Implications for other microbial endosymbioses. *J Exp. Bot.*, 40, 831-839 (1989).
40. Wyss, P., R.B. Mellor and A. Wiemken: Vesicular-arbuscular mycorrhizas of wildtype soybean and non-nodulating mutants with *Glomus mosseae* contain symbiosis-specific polypeptides (mycorrhizins), immunologically cross reactive with nodulins. *Planta*, 182, 22-26 (1990).
41. Wyss, P., R.B. Mellor and A. Wiemken: Mutants of soybean (*Glycine max*) unable to suppress nodulation in the presence of nitrate, retain the ability to suppress mycorrhization in the presence of phosphate. *J Plant Physiol.*, 136, 507-509 (1990).
42. Mellor, R.B.: Kontrollierter Proteinverdau an der Zelloberfläche. *BioTec* 6, 36-40 (1991). (in German)
43. Werner, D, B. Alhorn, S. Bassarab, R. Kape, A. Kinnback, R.B. Mellor, E. Mörschel, P. Müller, M. Parniske, P. Schmidt and A. Schultes: Nodule development and nitrogen fixation in the Rhizobium/Bradyrhizobium system. *Nitrogen metabolism of plants 33*, ed K. Mengel and D.J. Pilbeam, Clarendon Press, Oxford. p 17-30 (1992).
44. Mellor, R.B.: Is trehalose a symbiotic determinant in symbioses between higher plants and microorganisms? *Symbiosis*, 12, 113-129 (1992).
45. Mellor, R.B., J. Ronnenberg, W.H. Campbell and S. Diekmann: Reduction of nitrate and nitrite in water by immobilized enzymes. *Nature*, 355, 717-719 (1992).
46. Staehelin, C., J. Müller, R.B. Mellor, A. Wiemken and T. Boller: Chitinase and peroxidase in effective (Fix+) and ineffective (Fix-) soybean nodules. *Planta* 187, 295-300 (1992).
47. Mellor, R.B., J. Ronnenberg and S. Diekmann: Verfahren zur Wasserreinigung. Europäisches Patent Nr 91914767.8 (1992).

48. Müller, J., C. Staehelin, R.B. Mellor, T. Boller and A. Wiemken: Partial purification and characterization of trehalase from soybean nodules. *J Plant Physiol.*, 140, 8-13 (1992).
49. Staehelin, C., J. Granada, J. Müller, R.B. Mellor, A. Wiemken, G. Felix and T. Boller: Different legume chitinases differ in their ability to hydrolyse nodulation factors of rhizobia. *Physiol. Plant.* 85, A41.
50. Meyer, A.D. and R.B. Mellor: Nod-active compounds in soya nodules. *J. Plant Physiol.*, 142, 57-60 (1993).
51. Staehelin, C., J. Granada, J. Müller, A. Wiemken, R.B. Mellor, G. Felix, M. Regenass, W.J. Broughton, and T. Boller: Perception of *Rhizobium* nodulation factors by tomato cells and inactivation by root chitinases. *Proc. Natl. Acad. Sci. USA*, 91, 2196-2200 (1994).
52. Schultze, M., E. Kondorosi, A. Kondorosi, C. Staehelin, R.B. Mellor and T. Boller: The sulphate group on the reducing end protects nod-signals of *R. meliloti* against hydrolysis by *Medicago* chitinases. In; *New horizons in nitrogen fixation* (eds R. Palacios, J. Mora and W.J. Newton). Kluwer, Dordrecht. p159-164 (1993).
53. Staehelin, C., M. Schultze, E. Kondorosi, R.B. Mellor, T. Boller and A. Kondorosi: Structural modifications of *Rhizobium meliloti* nod-factors determining host specificity influence their stability against hydrolysis by chitinases. *Plant Journal*, 5, 319-330 (1994).
54. Müller, J., Z-P. Xie, C. Staehelin, R.B. Mellor, T. Boller and A. Wiemken: Trehalose and trehalase in root nodules from various legumes. *Physiol. Plant.*, 90, 86-92 (1994).
55. Mellor, R.B. and L. Rosendahl: A soybean peribacteroid space component, riboflavin, represses daidzein-induced common nod-gene expression in *Bradyrhizobium japonicum*. *J Plant Physiol.*, 144, 34-37 (1994).
56. Mellor, R.B. and D.B. Collinge: Fyldematerial til emballage og/eller udfyldnings og/eller isoleringsmateriale fra Sesbanias, nye "non-food" bælgplanter. Patent DK/0531/94. (in Danish).
57. Mellor, R.B. and D.B. Collinge: A simple model based on known plant defence reactions is sufficient to explain most aspects of nodulation. *J. Exp. Bot.*, 46, 1-18 (1995).
58. Mellor, R.B.: The nodulation of legumes. DSc thesis (1996). Jordbrug Forlag, Copenhagen
59. Nørskov, A.M. and R.B. Mellor: Electron-transferring dyes in the nitrate reductase reaction; non-toxic alternatives to methyl viologen. *W J microbiol. biotechnol.*, 12, 273-274. (1996).
60. Allaria, P.P., A.M. Nørskov, D.B. Collinge, R.B. Mellor and A. Schubert: The growth and utilization of various *Sesbania* spp., fast-growing legume trees, in northern Italy and Denmark. (1997). Jordbrug Forlag, Copenhagen
61. Farias-Rodrigues, R., R.B. Mellor, C. Arias and J.J. Pena-Cabrales: Trehalose accumulation in several cultivars of common bean (*Phaseolus vulgaris* L) and its correlation to drought stress. *Physiol. Plant.*, 102, 353-359 (1998).
62. Mellor, R. B.: *The Web Managers Handbook* (2003). Globe, Copenhagen.
63. Mellor, N and R. B. Mellor: *Applied E-Learning* (2004). Globe, Copenhagen.
64. Mellor, R. B.: *Sources and spread of innovation in small e-commerce companies*. Globe, Copenhagen.
65. Mellor, R. B.: The correlation between visits and product sales on three business-to-consumer Internet web sites. *KURIR*, 1, 17-30 (2006)

66. Mellor, R. B.: Receiving spam depends on provider, the occurrence of the e-mail address in hyper text and on the nature of the URL containing the email address. KURIR, 1, 31-39 (2006)
67. Innovation nuclei in small companies involved in Internet B2C ecommerce. Kingston University. PhD thesis (2006).

### **Books & Textbooks**

68. ASP - Learning by Example. Franklin Beedle, Wilsonville (2002)\*
69. DHTML - Learning by Example. Franklin Beedle, Wilsonville (2002)\*
70. XML - Learning by Example. Franklin Beedle, Wilsonville (2003)\*
71. Innovation Management. Globe, Copenhagen (2001)
72. Achieving Enterprise: Teaching Entrepreneurship and Innovation in Business and Academia. Eul Verlag (2006)
73. The Entrepreneurship Book: a textbook for non-business students. Sage, London (2007)

\* = Amazon.com bestselling computer book

### **Letters, Translations & Popular Science**

74. Bøgg-Hansen, T.C. and R.B. Mellor: On glycoconjugates and lectins. Glycoconj. J., 1, 3 (1984).
75. Werner, D. Symbioses of plants and microorganisms. Chapman and Hall, London 300pp 1992 (pflanzliche und mikrobielle Symbiosen, Thieme Verlag, 1987). Translated/updated by R.B. Mellor
76. Planter ideel som emballage. Mosaik, 19, (1994). (in Danish)

### **Abstracts & Posters**

43 other scientific posters and short contributions.

### **Handbooks (1990-1993)**

- pMEX, a DNA vector for cloning, sequencing, mutagenesis and strong gene expression.
- EXONTRAP, for the selective cloning of exons
- pAX vectors, fusion protein cloning
- BRP plasmids; helper plasmids to avoid inclusion body formation
- Immobilized enzymes, handbook & protocols
- Immobilized APTG, information & protocols