

# References for my PhD Thesis

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This document contains 900 references related to rhizobia.

## References

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**Aguilar, O. M., Lopez, M. V., Riccillo, P. M., Gonzalez, R. A., Pagano, M., Grasso, D. H., Puhler, A., and Favelukes, G. (1998).** “Prevalence of the *Rhizobium etli*-Like Allele in Genes Coding for 16S rRNA among the Indigenous Rhizobial Populations Found Associated with Wild Beans from the Southern Andes in Argentina.” *Applied and Environmental Microbiology*, 64(9): 3520–1427.

**Barnett, M. J., Fisher, R. F., Jones, T., Komp, C., Abola, A. P., Barloy-Hubler, F., Bowser, L., Capela, D., Galibert, F., Gouzy, J., Gurjal, M., Hong, A., Huizar, L., Hyman, R. W., Kahn, D., Kahn, M. L., Kalman, S., Keating, D. H., Palm, C., Peck, M. C., Surzycki, R., Wells, D. H., Yeh, K.-C., Davis, R. W., Federspiel, N. A., and Long, S. R. (2001).** “Nucleotide sequence and predicted functions of the entire *Sinorhizobium meliloti* pSymA megaplasmid.” *Proceedings of the National Academy of Sciences of the United States of America*, 98(17): 9883–9888.

**Broughton, W. J. and Perret, X. (1999).** “Genealogy of legume-Rhizobium symbioses.” *Current Opinion in Plant Biology*, 2(4): 305–311.

**Capela, D., Barloy-Hubler, F., Gouzy, J., Bothe, G., Ampe, F., Batut, J., Boistard, P., Becker, A., Boutry, M., Cadieu, E., Dreano, S., Gloux, S., Godrie, T., Goffeau, A., Kahn, D., Kiss, E., Lelaure, V., Masuy, D., Pohl, T., Portetelle, D., Puhler, A., Purnelle, B., Ramsperger, U., Renard, C., Thebault, P.,**

- Vandenbol, M., Weidner, S., and Galibert, F. (2001).** “Analysis of the chromosome sequence of the legume symbiont *Sinorhizobium meliloti* strain 1021.” *Proceedings of the National Academy of Sciences of the United States of America*, 98(17): 9877–9882.
- Chaintreuil, C., Giraud, E., Prin, Y., Lorquin, J., Ba, A., Gillis, M., de Lajudie, P., and Dreyfus, B. (2000).** “Photosynthetic Bradyrhizobia Are Natural Endophytes of the African Wild Rice *Oryza breviligulata*.” *Applied and Environmental Microbiology*, 66(12): 5437–1427.
- Choma, A., Urbanik-Sypniewska, T., Russa, R., Kutkowska, J., and Mayer, H. (2000).** “Occurrence and taxonomic significance of oxo-fatty acids in lipopolysaccharides from members of *Mesorhizobium*.” *Systematic and Applied Microbiology*, 23(2): 185–90.
- Coutinho, H. L. C., de Olivera, V. M., and Moreira, F. M. (2000).** “Systematics of legume nodule nitrogen fixing bacteria: Agronomic and ecological applications.” In F. G. Preist and M. Goodfellow, editors, “Applied Microbial Systematics,” pages 107–134. Kluwer Academic Publishers, Dordrecht.
- Cullimore, J. V., Ranjeva, R., and Bono, J. J. (2001).** “Perception of lipo-chitooligosaccharidic Nod factors in legumes.” *Trends in Plant Science*, 6(1): 24–30.
- Debellé, F., Moulin, L., Mangin, B., Dénarie, J., and Boivin, C. (2001).** “Nod genes and Nod signals and the evolution of the rhizobium legume symbiosis.” *Acta Biochimica Polonica*, 48(2): 359–65.
- del Papa, M. F., Balague, L. J., Sowinski, S. C., Wegener, C., Segundo, E., Abarca, F. M., Toro, N., Niehaus, K., Puhler, A., Aguilar, O., Martinez-Drets, G., and Lagares, A. (1999).** “Isolation and Characterization of Alfalfa-Nodulating Rhizobia Present in Acidic Soils of Central Argentina and Uruguay.” *Applied and Environmental Microbiology*, 65(4): 1420–1427.
- Downie, J. A. and Walker, S. A. (1999).** “Plant responses to nodulation factors.” *Current Opinion in Plant Biology*, 2(6): 483–489.
- Durner, J. and Klessig, D. F. (1999).** “Nitric oxide as a signal in plants.” *Current Opinion in Plant Biology*, 2(5): 369–374.
- Falla, T. J. and Chopra, I. (1999).** “Stabilization of *Rhizobium* symbiosis plasmids.” *Microbiology*, 145(3): 515–516.

- Feng, L., Roughley, R. J., and Copeland, L. (2002).** “Morphological Changes of Rhizobia in Peat Cultures.” *Applied and Environmental Microbiology*, 68(3): 1064–1070.
- Finan, T. M., Weidner, S., Wong, K., Buhrmester, J., Chain, P., Vorholter, F. J., Hernández-Lucas, I., Becker, A., Cowie, A., Gouzy, J., Golding, B., and Puhler, A. (2001).** “The complete sequence of the 1,683-kb pSymB megaplasmid from the N<sub>2</sub>-fixing endosymbiont *Sinorhizobium meliloti*.” *Proceedings of the National Academy of Sciences of the United States of America*, 98(17): 9889–9894.
- Foucher, F. and Kondorosi, E. (2000).** “Cell cycle regulation in the course of nodule organogenesis in Medicago.” *Plant Molecular Biology*, 43(5-6): 773–86.
- Gage, D. J. and Margolin, W. (2000).** “Hanging by a thread: invasion of legume plants by rhizobia.” *Current Opinion in Microbiology*, 3(6): 613–7.
- Gaunt, M. W., Turner, S. L., Rigottier-Gois, L., Lloyd-Macgilp, S. A., and Young, J. P. (2001).** “Phylogenies of *atpD* and *recA* support the small subunit rRNA-based classification of rhizobia.” *International Journal of Systematic and Evolutionary Microbiology*, 51(6): 2037–2048.
- Geiger, O. and Lopez-Lara, I. M. (2002).** “Rhizobial acyl carrier proteins and their roles in the formation of bacterial cell-surface components that are required for the development of nitrogen-fixing root nodules on legume hosts.” *FEMS Microbiology Letters*, 208(2): 153–62.
- Ghosh, W. and Roy, P. (2006).** “*Mesorhizobium thiogangeticum* sp. nov., a novel sulfur-oxidizing chemolithoautotroph from rhizosphere soil of an Indian tropical leguminous plant.” *International Journal of Systematic and Evolutionary Microbiology*, 56(1): 91–97.
- Gottfert, M., Rothlisberger, S., Kundig, C., Beck, C., Marty, R., and Hennecke, H. (2001).** “Potential symbiosis-specific genes uncovered by sequencing a 410-kilobase DNA region of the *Bradyrhizobium japonicum* chromosome.” *Journal of Bacteriology*, 183(4): 1405–12.
- Hastings, A., Greenwood, R. M., and Proctor, M. H. (1966).** *Legume inoculation in New Zealand*. New Zealand. Department of Scientific and Industrial Research. Information series; No. 58. Department of Scientific and Industrial Research, Wellington.
- Heenan, P. B. (1998).** “Phylogenetic analysis of the *Carmichaelia* complex, *Clanthus*, and *Swainsona* (Fabaceae), from Australia and New Zealand.” *New Zealand Journal of Botany*, 36(1): 21–40.

- Hirsch, A. M. (1999).** “Role of lectins (and rhizobial exopolysaccharides) in legume nodulation.” *Current Opinion in Plant Biology*, 2(4): 320–326.
- Jukes, T. and Cantor, C. (1969).** “Evolution of protein molecules.” In H. Munro, editor, “Mammalian Protein Metabolism,” pages 21–132. Academic Press, New York.
- Kaneko, T., Nakamura, Y., Sato, S., Asamizu, E., Kato, T., Sasamoto, S., Watanabe, A., Idesawa, K., Ishikawa, A., Kawashima, K., Kimura, T., Kishida, Y., Kiyokawa, C., Kohara, M., Matsumoto, M., Matsuno, A., Mochizuki, Y., Nakayama, S., Nakazaki, N., Shimpo, S., Sugimoto, M., Takeuchi, C., Yamada, M., and Tabata, S. (2000).** “Complete genome structure of the nitrogen-fixing symbiotic bacterium *Mesorhizobium loti*.” *DNA Research*, 7(6): 331–338.
- Kannenberg, E. L. and Carlson, R. W. (2001).** “Lipid A and O-chain modifications cause Rhizobium lipopolysaccharides to become hydrophobic during bacteroid development.” *Molecular Microbiology*, 39(2): 379–91.
- Khbaya, B., Neyra, M., Normand, P., Zerhari, K., and Filali-Maltouf, A. (1998).** “Genetic Diversity and Phylogeny of Rhizobia That Nodulate Acacia spp. in Morocco Assessed by Analysis of rRNA Genes.” *Applied and Environmental Microbiology*, 64(12): 4912–4917.
- Lafay, B. and Burdon, J. J. (1998).** “Molecular diversity of rhizobia occurring on native shrubby legumes in southeastern Australia.” *Applied and Environmental Microbiology*, 64(10): 3989–3997.
- Lafay, B. and Burdon, J. J. (2001).** “Small-subunit rRNA genotyping of rhizobia nodulating Australian *Acacia* spp.” *Applied and Environmental Microbiology*, 67(1): 396–402.
- Laguerre, G., Nour, S. M., Macheret, V., Sanjuan, J., Drouin, P., and Amarger, N. (2001).** “Classification of rhizobia based on *nodC* and *nifH* gene analysis reveals a close phylogenetic relationship among *Phaseolus vulgaris* symbionts.” *Microbiology*, 147(4): 981–93.
- Lewis, K. (2000).** “Programmed Death in Bacteria.” *Microbiology and Molecular Biology Reviews*, 64(3): 503–514.
- Lira, M. D., Lima, A. S. T., Arruda, J. R. F., and Smith, D. L. (2005).** “Effect of root temperature on nodule development of bean, lentil and pea.” *Soil Biology and Biochemistry*, 37(2): 235–239.

- Loh, J. T. and Stacey, G. (2001).** “Feedback regulation of the *Bradyrhizobium japonicum* nodulation genes.” *Molecular Microbiology*, 41(6): 1357–64.
- Lopez-Lara, I. M. and Geiger, O. (2000).** “Expression and purification of four different rhizobial acyl carrier proteins.” *Microbiology*, 146 ( Pt 4): 839–49.
- Marie, C., Broughton, W. J., and Deakin, W. J. (2001).** “Rhizobium type III secretion systems: legume charmers or alarmers?” *Current Opinion in Plant Biology*, 4(4): 336–342.
- Miller, J. T. and Bayer, R. J. (2001).** “Molecular phylogenetics of Acacia (Fabaceae: Mimosoideae) based on the chloroplast MATK coding sequence and flanking TRNK intron spacer regions.” *American Journal of Botany*, 88(4): 697–705.
- Miller, K. J. and Wood, J. M. (1996).** “Osmoadaptation by Rhizosphere Bacteria.” *Annual Review of Microbiology*, 50(1): 101–136.
- Miller, M. B. and Bassler, B. L. (2001).** “Quorum Sensing in Bacteria.” *Annual Review of Microbiology*, 55(1): 165–199.
- Molouba, F., Lorquin, J., Willems, A., Hoste, B., Giraud, E., Dreyfus, B., Gillis, M., de Lajudie, P., and Masson-Boivin, C. (1999).** “Photosynthetic Bradyrhizobia from *Aeschynomene* spp. Are Specific to Stem-Nodulated Species and Form a Separate 16S Ribosomal DNA Restriction Fragment Length Polymorphism Group.” *Applied and Environmental Microbiology*, 65(7): 3084–1427.
- Moulin, L., Munive, A., Dreyfus, B., and Boivin-Masson, C. (2001).** “Nodulation of legumes by members of the beta-subclass of Proteobacteria.” *Nature*, 411(6840): 948–50.
- Nienaber, A., Hennecke, H., and Fischer, H. M. (2001).** “Discovery of a haem uptake system in the soil bacterium *Bradyrhizobium japonicum*.” *Molecular Microbiology*, 41(4): 787–800.
- Oke, V. and Long, S. R. (1999).** “Bacteroid formation in the *Rhizobium*–legume symbiosis.” *Current Opinion in Microbiology*, 2(6): 641–646.
- Parker, M. A. (2002).** “Bradyrhizobia from wild *Phaseolus*, *Desmodium*, and *Macroptilium* species in northern Mexico.” *Applied and Environmental Microbiology*, 68(4): 2044–2048.
- Parniske, M. (2000).** “Intracellular accommodation of microbes by plants: a common developmental program for symbiosis and disease?” *Current Opinion in Plant Biology*, 3(4): 320–328.

- Parsons, M. J., Douglas, P., and McMillain, B. H. (1998).** *Current names for wild plants in New Zealand*. Manaaki Whenua Press, Lincoln.
- Perret, X., Staehelin, C., and Broughton, W. J. (2000).** “Molecular basis of symbiotic promiscuity.” *Microbiology and Molecular Biology Reviews*, 64(1): 180–201.
- Posada, D. and Crondall, K. A. (1998).** “Modeltest: testing the model of DNA substitution.” *Bioinformatics*, 14(9): 817–818.
- Quatrini, P., Scaglione, G., Cardinale, M., Caradonna, F., and Puglia, A. M. (2002).** “Bradyrhizobium sp. nodulating the Mediterranean shrub Spanish broom (*Spartium junceum* L.)” *Journal of Applied Microbiology*, 92(1): 13–21.
- Reeve, W. G., Tiwari, R. P., Worsley, P. S., Dilworth, M. J., Glenn, A. R., and Howieson, J. G. (1999).** “Constructs for insertional mutagenesis, transcriptional signal localization and gene regulation studies in root nodule and other bacteria.” *Microbiology*, 145(6): 1307–1316.
- Santos, R., Herouart, D., Sigaud, S., Touati, D., and Puppo, A. (2001).** “Oxidative burst in alfalfa-Sinorhizobium meliloti symbiotic interaction.” *Molecular Plant-Microbe Interactions*, 14(1): 86–9.
- Sawada, H., Kuykendall, L. D., and Young, J. M. (2003).** “Changing concepts in the systematics of bacterial nitrogen-fixing legume symbionts.” *Journal of General and Applied Microbiology*, 49: 155–179.
- Schmitt, R. (2002).** “Sinorhizobial chemotaxis: a departure from the enterobacterial paradigm.” *Microbiology*, 148(3): 627–631.
- Souza, V. and Eguiarte, L. E. (1997).** “Bacteria gone native vs. bacteria gone awry?: Plasmidic transfer and bacterial evolution.” *Proceedings of the National Academy of Sciences of the United States of America*, 94(11): 5501–5503.
- Spaink, H. P. (2000).** “Root nodulation and infection factors produced by rhizobial bacteria.” *Annual Review of Microbiology*, 54(1): 257–288.
- Stuurman, N., Bras, C. P., Schlaman, H. R., Wijffjes, A. H., Bloemberg, G., and Spaink, H. P. (2000).** “Use of green fluorescent protein color variants expressed on stable broad-host-range vectors to visualize rhizobia interacting with plants.” *Molecular Plant-Microbe Interactions*, 13(11): 1163–9.
- Sullivan, J. T. and Ronson, C. W. (1998).** “Evolution of rhizobia by acquisition of a 500-kb symbiosis island that integrates into a phe-tRNA

- gene.” *Proceedings of the National Academy of Sciences of the United States of America*, 95(9): 5145–5149.
- Sullivan, J. T., Trzebiatowski, J. R., Cruickshank, R. W., Gouzy, J., Brown, S. D., Elliot, R. M., Fleetwood, D. J., McCallum, N. G., Rossbach, U., Stuart, G. S., Weaver, J. E., Webby, R. J., De Bruijn, F. J., and Ronson, C. W. (2002).** “Comparative sequence analysis of the symbiosis island of *Mesorhizobium loti* strain R7A.” *Journal of Bacteriology*, 184(11): 3086–3095.
- Suominen, L., Roos, C., Lortet, G., Paulin, L., and Lindström, K. (2001).** “Identification and structure of the *Rhizobium galegae* common nodulation genes: evidence for horizontal gene transfer.” *Molecular Biology and Evolution*, 18(6): 907–916.
- Sy, A., Giraud, E., Jourand, P., Garcia, N., Willems, A., de Lajudie, P., Prin, Y., Neyra, M., Gillis, M., Boivin-Masson, C., and Dreyfus, B. (2001).** “Methylotrophic Methylobacterium bacteria nodulate and fix nitrogen in symbiosis with legumes.” *Journal of Bacteriology*, 183(1): 214–20.
- Tak, T., van Spronsen, P. C., Kijne, J. W., van Brussel, A. A. N., and Boot, K. J. M. (2004).** “Accumulation of lipochitin oligosaccharides and NodD-Activating compounds in an efficient plant-Rhizobium nodulation assay.” *Molecular Plant-Microbe Interactions*, 17(7): 816–823.
- Tan, Z., Hurek, T., Vinuesa, P., Muller, P., Ladha, J. K., and Reinhold-Hurek, B. (2001).** “Specific Detection of Bradyrhizobium and Rhizobium Strains Colonizing Rice (*Oryza sativa*) Roots by 16S-23S Ribosomal DNA Intergenic Spacer-Targeted PCR.” *Applied and Environmental Microbiology*, 67(8): 3655–1427.
- Turner, S. L. and Young, J. P. (2000).** “The glutamine synthetases of rhizobia: phylogenetics and evolutionary implications.” *Molecular Biology and Evolution*, 17(2): 309–319.
- Ulrich, A. and Zaspel, I. (2000).** “Phylogenetic diversity of rhizobial strains nodulating *Robinia pseudoacacia* L.” *Microbiology*, 146(11): 2997–3005.
- van der Holst, P. P., Schlaman, H. R., and Spaink, H. P. (2001).** “Proteins involved in the production and perception of oligosaccharides in relation to plant and animal development.” *Current Opinion in Structural Biology*, 11(5): 608–16.
- van Spronsen, P. C., Gronlund, M., Bras, C. P., Spaink, H. P., and Kijne, J. W. (2001).** “Cell biological changes of outer cortical root cells

in early determinate nodulation.” *Molecular Plant-Microbe Interactions*, 14(7): 839–47.

**Vincent, J. M. (1970).** *A manual for the practical study of the root-nodule bacteria*. Blackwell Scientific Publications, London.

**Vinuesa, P., Silva, C., Werner, D., and Martínez-Romero, E. (2005).** “Population genetics and phylogenetic inference in bacterial molecular systematics: the roles of migration and recombination in *Bradyrhizobium* species cohesion and delineation.” *Molecular Phylogenetics and Evolution*, 34(1): 29–54.

**Viprey, V., Perret, X., and Broughton, W. J. (2000).** “Host-plant invasion by rhizobia.” *Subcellular biochemistry*, 33: 437–56.

**Wagstaff, S. J., Heenan, P. B., and Sanderson, M. J. (1999).** “Classification, origins, and patterns of diversification in New Zealand *Carmichaelinae* (Fabaceae).” *American Journal of Botany*, 86(9): 1346–1356.

**Weir, B. S., Turner, S. J., Silvester, W. B., Park, D.-C., and Young, J. M. (2004a).** “The diversity of rhizobia nodulating woody legumes in New Zealand.” In “Microbes outside the square : New Zealand Microbiology Society Conference, Palmerston North, New Zealand, 17th - 19th November 2004 : abstract book,” page 72. New Zealand Microbiology Society, Palmerston North.

**Weir, B. S., Turner, S. J., Silvester, W. B., Park, D.-C., and Young, J. M. (2004b).** “Rhizobia on the native and exotic legumes of New Zealand.” In “14th International Congress on Nitrogen Fixation, Beijing, China, Oct 27 - Nov 1, 2004 : program and abstract book,” page 96. [The Conference], Beijing.

**Weir, B. S., Turner, S. J., Silvester, W. B., and Young, J. M. (2004c).** “Unexpected diversity of rhizobia nodulating native and introduced legumes in New Zealand.” In “Microbial planet : sub-surface to space : 10th International Symposium of Microbial Ecology ISME-10, Cancun, Mexico, August 22-27, 2004 : book of abstracts,” page 212. [The Conference], Cancun.

**Weir, B. S., Young, J. M., Silvester, W. B., and Turner, S. J. (2003).** “Rhizobia associated with New Zealand legume flora.” In “MicroNZ 2003 : a combined annual scientific meeting and exhibition of the Australian and New Zealand Societies for Microbiology : art in science : the Edge - Aotea Centre, Auckland, New Zealand, 28 September - 2 October 2003 : final program and abstracts book,” pages 116–117. Australian and New Zealand Societies for Microbiology, Auckland.

- West, S. A., Kiers, E. T., Simms, E. L., and Denison, R. F. (2002).** “Sanctions and mutualism stability: why do rhizobia fix nitrogen?” *Proceedings of the Royal Society of London - Series B: Biological Sciences*, 269(1492): 685–694.
- Willems, A., Doignon-Bourcier, F., Goris, J., Coopman, R., de Lajudie, P., De Vos, P., and Gillis, M. (2001).** “DNA-DNA hybridization study of Bradyrhizobium strains.” *International Journal of Systematic and Evolutionary Microbiology*, 51(Pt 4): 1315–22.
- Wong, F. C. Y. and Meeks, J. C. (2002).** “Establishment of a functional symbiosis between the cyanobacterium *Nostoc punctiforme* and the bryophyte *Anthoceros punctatus* requires genes involved in nitrogen control and initiation of heterocyst differentiation.” *Microbiology*, 148(1): 315–323.
- Yamamoto, S., Kasai, H., Arnold, D. L., Jackson, R. W., Vivian, A., and Harayama, S. (2000).** “Phylogeny of the genus *Pseudomonas*: intrageneric structure reconstructed from the nucleotide sequences of *gyrB* and *rpoD* genes.” *Microbiology*, 146(10): 2385–2394.
- Young, J. M. (2004).** “Renaming of *Agrobacterium larrymoorei* Bouzar and Jones 2001 as *Rhizobium larrymoorei* (Bouzar and Jones 2001) comb. nov.” *International Journal of Systematic and Evolutionary Microbiology*, 54(1): 149.
- Young, J. M., Park, D.-C., and Weir, B. S. (2004).** “[Poster abstract] Diversity of 16S rDNA sequences of *Rhizobium* spp. - implications for species determinations.” In “14th International Congress on Nitrogen Fixation, Beijing, China, Oct 27 - Nov 1, 2004 : program and abstract book,” page 129. [The Conference], Beijing.
- Zahran, H. H. (1999).** “Rhizobium-Legume Symbiosis and Nitrogen Fixation under Severe Conditions and in an Arid Climate.” *Microbiology and Molecular Biology Reviews*, 63(4): 968–989.
- Zeze, A., Mutch, L. A., and Young, J. P. (2001).** “Direct amplification of *nodD* from community DNA reveals the genetic diversity of *Rhizobium leguminosarum* in soil.” *Environmental Microbiology*, 3(6): 363–70.
- Zhang, X.-X., Turner, S. L., Guo, X.-W., Yang, H.-J., Debelle, F., Yang, G.-P., Dénarie, J., Young, J. P. W., and Li, F.-D. (2000).** “The common nodulation genes of *Astragalus sinicus* rhizobia are conserved despite chromosomal diversity.” *Applied and Environmental Microbiology*, 66(7): 2988–2995.

**Zhao, S. and Williams, K. P. (2002).** “Integrative genetic element that reverses the usual target gene orientation.” *Journal of Bacteriology*, 184(3): 859–60.