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3. **Designation:**

Professor and Head of Research Cluster on Genomics and Systems Biology, Universiti Kebangsaan Malaysia

4. **Research Expertise / No of years:** Plant Genetics and Biotechnology; 25 years

5. **Research Interests:**

Genetic diversity and breeding system studies of forest tree species using molecular markers, studies on inheritance of traits and genes , molecular biology of flowering in *Calamus*, functional genomics of wood formation in *Acacia* hybrid, QTL mapping in rice and *Acacia*.

6. **Research Projects (last 10 years):**

- a. Prioritised Research Project on Genetic Studies on *Acacia* Hybrids for Enhancement of Wood Pulp Quality (01-02-02-0000-PR0003/03) from January 2002 to December 2004 with a Government of Malaysia contribution of RM1,682,000. (**Program Leader**). Status: Completed. Project addressed needs of forest plantation industry for new improved planting materials and reduce imports for pulp and paper.
- b. IRPA Project on Gene/Genome Manipulation of Yield Enhancement in Rice (01-03-03-001-BIOTEK/ER/001) from January 2002 to December 2004 with a Government of Malaysia contribution of RM842,000. (**Project Leader**). Status: Completed. Project addressed utilisation of wild rice of Malaysian origin to break yield ceiling of current cultivars.
- c. R & D Initiative under Institute for Agrobiotechnology (ABI), Ministry of Science, Technology and Innovation Malaysia Project No. UKM-ABI-NBD0001-2007 on Identification of yield related QTLs and genes for improvement of Malaysian rice cultivars from January 2007 to June 2010 with a Government of Malaysia contribution of RM1,000,000. (**Project Leader**). Status: Completed. Project awarded to increase self-sufficiency in rice production.
- d. eScience Grant No. 02-01-02-SF0403 on Characterisation of lignin genes and their expression in *Acacia mangium* x *Acacia auriculiformis* hybrid from August 2007 to July 2009 with a Government of Malaysia contribution of RM229,000. (**Project Leader**). Status: Completed. Project outputs include characterisation of key lignin genes to reduce lignin content and alter lignin composition in wood which will benefit pulp and paper industry in the country and the ASEAN region.
- e. eScience Grant No. 05-01-02-SF1020 on Discovery of regulatory sequences involved in lignin biosynthesis in *Acacia mangium* from June 2010 to May 2012 with a Government of Malaysia contribution of RM182,000. (**Project Leader**). Status: On-going. Project awarded to improve understanding and manipulation of lignin pathway for industrial use.

- f. Global Crop Diversity Trust No: GS09037 and Generation Challenge Programme-Genotyping Support Services Grant No. GS07001 on Improvement of rice varieties/breeding lines for low water availability in South and Southeast Asia from April 2009 to March 2012 with a Trust contribution of US\$30,000. (**Project Leader**). Status: On-going. Project awarded based on ability to lead a multi-national (involving Bangladesh, India, Philippines and Malaysia) project to develop elite local cultivars with drought tolerance to be deployed to rice farmers.
 - g. LRGS Food Security Grant No. LRGS/TD/2011/UPM-UKM/KM/01 on Genetic Improvement for Durable Resistance to Pest-Pathogen in Rice from July 2011 to June 2014 with a Government of Malaysia contribution of RM645,000. (**Project Leader**). Status: On-going. Project awarded based on expertise in rice genetics and breeding and ability to lead a multi-institutional project involving national universities and research institutes with strong link to international organisations and industry.
 - h. eScience Grant No. on High Density Linkage Map Construction for *Acacia auriculiformis* x *Acacia mangium* Hybrid using Single Nucleotide Polymorphism Markers for Marker Assisted Breeding from January 2012 to December 2013 with a Government of Malaysia contribution of RM339,000. (**Project Leader**). Status: On-going. Project awarded to construct genetic linkage map for *Acacia* hybrid for marker assisted breeding with direct partnership with industry.
6. **Publications:** (Total citation index = 263; H-index = 10)
Book (1), Book chapters (4), Journals (67), Proceedings (>100) and seminar abstracts (>150), Patent (1 pending, filed in Malaysia) and 11 New Plant Varieties registered in Malaysia.
7. **Postgraduate Supervision:**
Completed – 4 Postdoc, 12 PhD, 24 MSc
On-going – 7 PhD, 8 MSc
8. **Awards and Other Esteem Factors:**

Expert Authority:

- i. Coordinator, Working Party on Population, Conservation and Ecological Genetics (WP2.04.01), International Union of Forestry Research Organisations for 5 years w.e.f. January 2010.
- ii. ScienceFund (R & D Agriculture) Panel for Evaluation and Monitoring of Projects, Ministry of Science, Technology and Innovation and Ministry of Agriculture from 1 June 2008 to 31 December 2010
- iii. Panel for Evaluation of Research, Development and Commercialisation Funding, Ministry of Science, Technology and Innovation, Malaysia for 2 years w.e.f. 27 July 2010.
- iv. Expert Group (International Forest Genetic Research Associates) Meeting on Development of Genetic Criteria and Indicators for Sustainable Tropical Forestry
- v. Consultation on Agriculture Biotechnology for Promoting Food Security in Developing Countries
- vi. Invited/Plenary speakers at key International and National level Conferences in Plant Genetics and Breeding

Research Activities:

- i. British High Commissioner's Attachment Award (Chevening Award) in 1993 at University of St. Andrews, Scotland.
- ii. Visiting Scientist Fellow at Cooperative Research Centre for Sustainable Production Forestry, University of Tasmania, Australia from April - December 2003.
- iii. Honorary Research Associate at School of Plant Science, University of Tasmania, Australia from April - December 2003.
- iv. Gold Medal for exhibit on Rice Transgressive Variants with Red Pericarp Grain at UMT Research Day 2011, Universiti Malaysia Terengganu.
- v. Silver Medal for exhibit on Thirty-One High Yielding Inter-Specific Hybrid Lines Developed Through Backcross Breeding Strategy under Knowledge Category at MARDI Science and Technology Exhibition in 2006.
- vi. Gold Medal for exhibit on Rice Transgressive Variants with Red Pericarp Grain at UMT Research Day 2011, Universiti Malaysia Terengganu.
- vii. Gold Medal for exhibit on Superior Red Rice with Low GI at Pemacuan Kegemilangan Warisan Ilmu, UKM from 3-5 May 2011.

- viii. Bronze Medal for exhibit on Superior Red Rice with Low GI at PECIPTA 2011, Kuala Lumpur Convention Centre, 13-15 September 2011.
- ix. Silver Medal exhibit on Superior Red Rice with Low GI at BioMalaysia 2011, Kuala Lumpur Convention Centre, 20-22 November 2011.
- x. Excellent Research Award for 2003 from Faculty of Science and Technology, UKM.
- xi. Best Technical Publication Awards from FRIM (1993, 1994, 1996, 1997), LGM (1998) and UKM (2004).

Other awards, recognitions and contributions:

- i. Excellent Service Award for 2001 from Universiti Kebangsaan Malaysia.
- ii. Chief Editor of Malaysian Applied Biology (www.mabjournal.com) w.e.f. 2007.
- iii. Associate Editor of Forest Genetics w.e.f. 2003.

9. Professional Societies:

- a. Malaysian Society for Molecular Biology and Biotechnology (1990-Present). Invited speaker at MSMBB annual meetings.
- b. Genetics Society of Malaysia - member (1994-Present). Held main office bearer positions (Hon. Secretary and Vice-President) and Council Member since 1994.
- c. Malaysian Society for Applied Biology - member (2007-Present). Appointed Chief Editor of society's biannual journal since 2007.

MAIN PUBLICATIONS/INTELLECTUAL PROPERTY:

Journal publications

1. Kuthubutheen A.J., **Wickneswari R.** and Kumar Das V.G. 1989. Structure-activity studies on the fungitoxicity of some triorganotin (IV) compounds. *Applied Organometallic Chemistry*, 3: 231-242.
2. Kuthubutheen A.J., **Wickneswari R.** and Kumar Das V.G. 1989. Efficacy of selected triorganotin (IV) compounds against *Phytophthora palmivora* (Butler). Butler isolated from black pepper and cocoa. *Applied Organometallic Chemistry*, 3: 243 - 248.
3. Kuthubutheen A.J., **Wickneswari R.** and Kumar Das V.G. 1989. Changes in fungal and bacteria populations in soil treated with two triorganotin (IV) compounds. *Applied Organometallic Chemistry*, 3: 309 - 318.
4. Kuthubutheen A.J., **Wickneswari R.** and Kumar Das V.G. 1989. Effect of six triorganotin (IV) compounds on nitrification and ammonification in soil. *Applied Organometallic Chemistry*, 3: 319 - 333.
5. Kuthubutheen A.J., **Wickneswari R.** and Kumar Das V.G. 1989. Persistence of fungitoxicity of two triorganotin (IV) compounds in soil. *Applied Organometallic Chemistry*, 3: 451-457.
6. **Wickneswari R.** 1989. Use of isozyme analysis in a proposed *Acacia mangium* x *Acacia auriculiformis* hybrid seed production orchard. *Journal of Tropical Forest Science*, 2(2): 157 - 164.
7. Sedgley M., Harbard J., Smith R-M.M., **Wickneswari R.** and Griffin A.R. 1992. Reproductive biology and interspecific hybridisation of *Acacia mangium* and *Acacia auriculiformis* A. Cunn. Ex Benth. (Leguminosae: Mimosideae). *Australian Journal of Botany*, 40: 37-48.
8. **Wickneswari R.** and Norwati M. 1993. Genetic diversity of natural populations of *Acacia auriculiformis*. *Australian Journal of Botany*, 41(1): 65-77.
9. Sunderasan E., **Wickneswari R.**, Md. Zain Abd. Azia and Yeang H.Y. 1994. Incidence of self and cross-pollination in two *Hevea brasiliensis* clones. *Journal of Natural Rubber Research*, 9(4): 253-257.
10. Zakri A.H., Normah M.N. and **Wickneswari R.** 1996. Potential applications of biotechnology and molecular biology in plantation forest in developing countries (Review). *Asia Pacific Journal of Molecular Biology and Biotechnology*, 4(1): 1-12.
11. Tsumura Y., Kawahara T., **Wickneswari R.** and Yoshimura K. 1996. Molecular phylogeny of Dipterocarpaceae in Southeast Asia using RFLP of PCR-amplified chloroplast genes. *Theoretical and Applied Genetics*, 93 : 22-29.
12. Yeang H.Y., Sunderasan E., **Wickneswari R.**, Napi D. and Zamri A.S.M. 1998. Genetic relatedness and identities of cultivated *Hevea* clones determined by isozymes. *Journal of Rubber Research*, 1(1) : 35-47.
13. Kajita T., Kamiya K., Nakamura K., Tachida H., **Wickneswari R.**, Tsumura Y., Yoshimaru H. and Yamazaki T. 1998. Molecular phylogeny of Dipterocarpaceae in Southeast Asia based on nucleotide sequences of matK, trnL intron, and trnL-trnF intergenic spacer region in chloroplast DNA. *Molecular Phylogenetics and Evolution*, 10(2): 202-209.

14. Ujino T., Kawahara T., Tsumura Y., Nagamitsu T., Yoshimaru H. and **Wickneswari R.** 1998. Development and polymorphism of simple sequence repeat DNA markers for *Shorea curtisii* and other Dipterocarpaceae species. *Heredity*, 81:422-428.
15. **Wickneswari R.**, Lee C.T., Norwati M. and Boyle T.J.B. 1999. Impact of logging on genetic diversity in humid tropical forests. *In*: C.Matyas (ed.), *Forest Genetics and Sustainability*, Kluwer Academic Publishers, Netherlands, 63:171-181.
16. Lee S.L., **Wickneswari R.**, Mahani M.C. and Zakri A.H. 2000. Inheritance of allozyme variants in *Shorea leprosula* MIQ. (Dipterocarpaceae). *Journal of Tropical Forest Science*, 12:124-138.
17. Lee S.L., **Wickneswari R.**, Mahani M.C. and Zakri A.H. 2000. Mating system parameters in a tropical tree species, *Shorea leprosula* Miq.. (Dipterocarpaceae) from Malaysian lowland dipterocarp forest. *Biotropica*, 32(4a): 693-702.
18. Song B.K., Clyde M.M., **Wickneswari R.** and Normah M.N. 2000. Genetic relatedness among *Lansium domesticum* accessions using RAPD markers. *Annals of Botany*, 86(2): 299-307.
19. Lee S.L., **Wickneswari R.**, Mahani M.C. and Zakri A.H. 2000. Genetic diversity of a tropical tree species, *Shorea leprosula* Miq.. (Dipterocarpaceae) in Malaysia. Implication for conservation of genetic resources and tree improvement. *Biotropica* 32(2): 213-224.
20. Lee S.L., **Wickneswari R.**, Mahani M.C. and Zakri A.H. 2001. Comparative genetic diversity studies of *Shorea leprosula* Miq. (Dipterocarpaceae) using RAPD and allozyme markers. *Journal of Tropical Forest Science*, 13(1): 202-215.
21. Lee C.T., **Wickneswari R.**, Mahani M.C. and Zakri A.H. 2002. Effect of selective logging on the genetic diversity of *Scaphium macropodum*. *Biological Conservation* 104(1):107-118.
22. Mahani M.C., Jong K., Yu C.P., Fatimah M. and **Wickneswari R.** 2002. Techniques for dipterocarp chromosomes with particular reference to triploidy in *Hopea odorata*. *Journal of Tropical Forest Science* 14(2):264-267.
23. Lee C.T., **Wickneswari R.**, Mahani M.C. and Zakri A.H. 2002. Maintenance of genetic diversity in *Parkia speciosa* in logged-over forests. *Journal of Tropical Forest Science* 14(2):163-178.
24. **Wickneswari R.**, Norwati M., Siti Salwana H., Nur Supardi M.N. and Aminuddin M. 2002. Genetic diversity in potential seed sources of *Calamus manan* Miq. In Peninsular Malaysia. *Journal of Malaysian Applied Biology* 31(1):49-58.
25. Lim S.L., **Wickneswari R.**, Lee S.L. and Latiff A. 2002. Genetic variation of *Dryobalanops aromatica* Gaertn. F. (Dipterocarpaceae) in Peninsular Malaysia using microsatellite DNA markers. *Forest Genetics* 9(2):127-138.
26. Ng C. H., **Wickneswari R.**, Salmijah S. Teng Y.T. and Ismail B. S. 2002. Gene polymorphisms in glyphosate-resistant and -susceptible biotypes of *Eleusine indica* from Malaysia. *Weed Research* 43:108-115.
27. Song B.K., Mahani M.C. **Wickneswari R.**, Normah M.N., Kamariah M. and Norlia Y. 2002. Development of RAPD marker for identification of dokong (*Lansium domesticum* Corr.) types. *Malaysian Applied Biology* 31(2):93-97.
28. Wickneswari R., Koh S.C., Thi B.K., Low C.Y. and Tan E. 2003. Estimation of genetic relatedness among *Acacia mangium* x *Acacia auriculiformis* hybrids .*Malaysian Applied Biology* 32(1):73-79.

29. **Wickneswari R.** and Ho W.S. 2003. Determination of genetic relatedness of selected individual trees of *Shorea leprosula* Miq. and *Dipterocarpus cornutus* Dyer in forest seed production areas. *Tropics* 13(2):139-149.
30. Hayati A., **Wickneswari R.**, Maisura I. and Rajanaidu N. 2004. Genetic diversity of oil palm (*Elaeis guineensis* Jacq.) germplasm collections from Africa: Implications for improvement and conservation of genetic resources. *Theoretical and Applied Genetics* 108:1274-1284.
31. Ng C.H., **Wickneswari R.**, Salmijah S., and Ismail B.S. 2004. Inheritance of glyphosate resistance in goosegrass (*Eleusine indica*). *Weed Science* 52 (4): 564-570.
32. Ng C.H., **Wickneswari R.**, Salmijah S., and Ismail B.S. 2004. Glyphosate resistance in *Eleusine indica* (L.) Gaertn. and polymerase chain reaction amplification of specific alleles. *Australian Journal of Agricultural Research* 55: 407-414.
33. Ali M.F., Heng L.Y., **Ratnam W.**, Nais J. and Ripin R. 2004. Metal Distribution and Contamination of the Mamut River, Malaysia, Caused by Copper Mine Discharge. *Bulletin of Environmental Contamination and Toxicology* 73(3):535-542.
34. **Wickneswari R.**, Ho W.S., Lee K.S. and Lee C.T. 2004. Impact of disturbance on population and genetic structure of tropical forest trees. *Forest Genetics* 10(3-4):193-201.
35. Ho W.S., **Wickneswari R.**, Mahani M.C. and Shukor M.N. 2004. The effects of the timing and method of logging on forest structure in Peninsular Malaysia. *Forest Management and Ecology* 203:209-228.
36. Ng C.H., Koh S.C., Lee S.L., Ng K.K.S., Mark A., Norwati M. and **Wickneswari R.** 2005. Isolation of 15 polymorphic microsatellite loci in *Acacia* hybrid (*A. mangium* x *A. auriculiformis*). *Molecular Ecology Notes* 5:572-575.
37. Song B.K., Kalaivani N., Romanov M.N. and **Wickneswari R.** 2005. Cross-species bacterial artificial chromosome (BAC) library screening via overgo-based hybridization and BAC-contig mapping of a yield enhancement quantitative trait loci (QTL) Yld1.1 in the Malaysian wild rice *Oryza rufipogon*. *Cellular & Molecular Biology Letters* 10:425-437.
38. Sabu K.K., Abdullah M.Z., Lim L.S. and **Wickneswari R.** 2006. Development and evaluation of advanced backcross families of rice for agronomically important traits. *Communications in Biometry and Crop Science* 1(2):111-123.
39. Ho, W.S., **Wickneswari, R.**, Mahani, M.C. & Shukor, M.N. 2006. Comparative genetic diversity (polymorphisms) studies of *Shorea curtisii* Dyer ex King (Dipterocarpaceae) using SSR and DAMD markers. *Journal of Tropical Forest Science* 18(1): 557-565.
40. Mohamed F.A., Lee Y.H., **Wickneswari R.**, Jamili N. and Remi R. 2006. The content and accumulation of arsenic and heavy metals in medicinal plants near Mamut River contaminated by copper-mining in Sabah, Malaysia. *Fresenius Environmental Bulletin* 15(10):1-7.
41. Pang, S.L., Choong, C.Y. and **Wickneswari, R.** 2006. Molecular cloning and characterization of cinnamyl alcohol dehydrogenase cDNA from interspecific hybrid *Acacia mangium* x *Acacia auriculiformis*. *Journal of Tropical Plant Physiology* 1:75-85.
42. Nadarajah K., Choong C.Y., **Ratnam W.**, Leong S.J., Thi B.K., Hedley P. and Waugh R. 2006. EST analysis in *Calamus manan* MIQ. *Journal of Tropical Plant*

Physiology 1:1-11.

43. Mohamed F.A., **Wickneswari R.** and Lee Y.H. 2007. Genetic effects of arsenic and heavy metals pollutants on *Curculigo latifolia* (Lumbah). Journal of Biological Sciences 7(7):1155-1162.
44. Lee K.S., **Wickneswari R.** and Choong C.Y. 2007. Stand structure and the genetic diversity of *Koompassia malaccensis* and *Dryobalanops aromatica* in unlogged and logged-over stands. Sains Malaysiana 36(2):233-242.
45. Bakoumé C., **Wickneswari R.**, Rajanaidu N., Kushairi A., Amblard P. and Billotte N. 2007. Allelic diversity of natural oil palm (*Elaeis guineensis* Jacq.) populations detected by microsatellite markers. Implication in conservation. *Palmas*, vol. 28, no. Special volume 1, pp.149-158.
46. Bakoume C, **Wickneswari R.**, Rajanaidu N., Ahmad Kushairi, Amblard P. And Billotte N. 2007. Allelic diversity of natural oil palm (*Elaeis guineensis* Jacq.) populations detected by microsatellite markers: implications for conservation. Plant Genetic Resources: Characterization and Utilization 5(2):104-107.
47. Song B.K., Kalaivani N. And **Wickneswari R.** 2007. A non-redundant strategy for identification of a minimum tiling path BAC contig spanning approximately 390 kb of the QTL yld1.1 in *Oryza rufipogon*. Korean Journal of Genetics 29(4):447-454.
48. Nur Fariza M.S., Pang S.L., Choong C.Y. and **Wickneswari R.** 2008. Extensive DNA sequence variations in two lignin genes, *cinnamate 4-hydroxylase* and *cinnamyl alcohol dehydrogenase* from *Acacia mangium* and *Acacia auriculiformis*. Journal of Biological Sciences 8(3):687-690.
49. Chong J.L., **Wickneswari R.**, Ismail B.S. and Salmijah S. 2008. Nucleotide variability in the *5-enolpyruvylshikimate-3-phosphate synthase* gene from *Eleusine indica* (L.) Gaertn. Pakistan Journal of Biological Sciences 11(2):476-479.
50. Choong C. Y., **Wickneswari R.**, Norwati M. And Abbott R.J. 2008. Phylogeny of *Hopea* (Dipterocarpaceae) inferred from chloroplast DNA and nuclear *PgiC* sequences. Molecular Phylogenetics and Evolution 48:1238-1243.
51. Chong J.L., **Wickneswari R.**, Ismail B.S. and Salmijah S. 2008. Comparative growth studies of glyphosate-resistant and susceptible *Eleusine indica* (L.) Gaertn. (goosegrass) biotypes from the Malaysian Peninsular. Plant Protection Quarterly Vol. 23(2): 99-103.
52. Song B.K., Hein I., Druka A., Waugh R., Marshall D., Kalaivani K., Yap S.J. and **Wickneswari R.** 2009. The 172-kb genomic DNA region of the *O. rufipogon yld1.1* locus: comparative sequence analysis with *O. sativa* ssp. *japonica* and *O. sativa* ssp. *indica*. Functional and Integrative Genomics 9 (1):97-108.
53. Ng C.H., Lee S.L., Ng K.K.S., Norwati M. And **Wickneswari R.** 2009. Mating system and seed variation of *Acacia* hybrid (*A. mangium* x *A. auriculiformis*). Journal of Genetics 88(1):25-31.
54. Sabu K.K., Abdullah M.Z., Lim L.S. and **Wickneswari R.** 2009. Analysis of heritability and environmental variances in a rice cross. Agronomy Research 7: 97-102.
55. Choong C.Y., **Wickneswari R.** and Fatimah S. 2009. Survival and sex ratio of a planted rattan *Calamus palustris* Griff. Population: Implication to seed production and management. Journal of Biological Sciences 9(6):633-636.
56. Kalaivani N., Leong S.J., Choong C.Y. and **Wickneswari R.** 2009. Identification of

floral ESTs from *Calamus manan* inflorescence library. Biosciences, Biotechnology Research Asia 6(1):7-16.

57. K. Nadarajah, C.Y., Choong, S.J., Leong and **R. Wickneswari**, 2009. Functional prediction of *Calamus manan* inflorescence ESTs through motif detection. Biotechnology:1-12.
58. Kalaivani Nadarajah, Amatul Samahah Md. Ali and **Wickneswari R.** 2010. Isolation and Characterisation of *O. rufipogon* PIB Genes. Journal of Pure and Applied Microbiology, 4(2):469-481.
59. Kalaivani Nadarajah, Doris Ngui Ing Hie and **Wickneswari Ratnam**, 2010. Isolation and Characterisation of Chitinase Gene from *Oryza rufipogon*. Malaysian Applied Biology 39(1):33-41.
60. M. S. Ngu, K. K. Sabu, L. S. Lim, M. Z. Abdullah, **R. Wickneswari**. 2010. Genetic Structure of *Oryza rufipogon* Griff. Natural Populations in Malaysia: Implications for Conservation and Genetic Introgression of Cultivated Rice. Tropical Plant Biology 3:227-239.
61. Bhuiyan M.A.R., Narimah M.K., Abdul Rahim H., Abdullah M. Z., **Wickneswari R.** 2010. Transgressive variants for red pericarp grain with high yield potential derived from *Oryza rufipogon* x *Oryza sativa*: Field evaluation, screening for blast disease, QTL validation and background marker analysis for agronomic traits. Field Crops Research 121:232-239.
62. Aggarwal, R.K., Allainguillaume, J., Bajay, M.M., Barthwal, S., Bertolino, P., Chauhan, P., Consuegra, S., Croxford, A., Dalton, D.L., Den belder, E., Diaz-Ferguson, E., Douglas, M.R., Drees, M., Elderson, J., Esselink, G.D., Fernandez-Manjarres, J.F., Frascaria-Lacoste, N., Gabler-Schwarz, S., De Leaniz, C.G., Ginwal, H.S., Goodisman, M.A.D., Guo, B., Hamilton, M.B., Hayes, P.K., Hong, Y., Kajita, T., Kalinowski, S.T., Keller, L., Koop, B.F., Kotze, A., Lalremruata, A., Leese, F., Li, C., Liew, W.Y., Martinelli, S., Matthews, E.A., Medlin, L.K., Messmer, A.M., Meyer, E.I., Monteiro, M., Moyer, G.R., John Nelson, R., Nguyen, T.T.T., Omoto, C., Ono, J., Pavinato, V.A.C., Percy, M., Pinheiro, J.B., Power, L.D., Rawat, A., Reusch, T.B.H., Sanderson, D., Sannier, J., Sathe, S., Sheridan, C.K., Smulders, M.J.M., Sukganah, A., Takayama, K., Tamura, M., Tateishi, Y., Vanhaecke, D., Vu, N.V., **Wickneswari, R.**, Williams, A.S., Wimp, G.M., Witte, V., Zucchi, M.I. 2011. Permanent Genetic Resources added to Molecular Ecology Resources Database 1 August 2010 – 30 September 2010. Molecular Ecology Resources 11(1):219-222.
63. Yong SYC, Choong CY, Cheong PL, Pang SL, Nor Amalina, R, Harikrishna JA, Mat Isa MN., Hedley P, Milne L, Vaillancourt R, **Wickneswari R.** 2011. Analysis of ESTs generated from inner bark tissue of an *Acacia auriculiformis* x *Acacia mangium* hybrid. Tree Genetics and Genomes 7(1):143-152.
64. Wong M., Cannon C.H. and **Wickneswari R.** 2011. Identification of lignin genes and regulatory sequences involved in secondary cell wall formation in *Acacia auriculiformis* and *Acacia mangium* via de novo transcriptome sequencing, *BMC Genomics* 2011, 12:342 doi:10.1186/1471-2164-12-342.
65. Ong, S.S., and **Wickneswari, R.** 2011. Expression Profile of small RNAs in *Acacia mangium* Secondary Xylem Tissues with Contrasting Lignin Content – potential regulatory sequences in monolignol biosynthetic pathway. *BMC Genomics* 3, 1471-2164.

66. Tilakavati Karupaiah, Chuah Khun Aik, Tan Choon Heen, Satiapoorany Subramaniam, Atiqur R Bhuiyan, Parviz Fasahat, Abdullah M Zain and **Wickneswari Ratnam**. 2011. A transgressive brown rice mediates favourable glycemic and insulin responses. *Journal of Science of Food and Agriculture* 91. DOI 10.1002/jsfa.4395.
67. **Wickneswari R.**, M.A.R. Bhuiyan, K. K. Sabu, L.S. Lim, M.J. Thomson, Narimah M.K., Abdullah M. Z. 2011. Identification and validation of quantitative trait loci for agronomic traits in advanced backcross breeding lines derived from *Oryza rufipogon* x *Oryza sativa* cultivar MR219. *Plant Molecular Biology Reporter*, DOI: 10.1007/s11105-011-0404-4.

BOOK CHAPTERS?BOOKS

1. **Wickneswari R.** and Boyle T.J.B. 2000. Impact of logging and other forms of harvesting on genetic diversity in tropical forests. *In: Young A. et al. (eds.), Forest Conservation and Genetics: Principles and Practice*, Chapter 9, pp. 115-122. Published by CSIRO Plant Industry, Canberra, Australia.
2. **Wickneswari R.** 2001. Use of molecular markers to quantify genetic diversity parameters of forest trees. *In: R. Uma Shaanker, K.N. Ganeshaiah and K.S. Bawa (eds.), Forest Genetic Resources in India: Status, Threats and Conservation Strategies*. Chapter 9. Pp 127-139. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi and Calcutta.
3. **Wickneswari R.** 2011. Chapter 4. Threats to Genetic Viability of Southeast Asian Forest Species. *In: Wickneswari R. and Cannon C.H. (eds.) 2011. Managing the Future of Southeast Asia's Valuable Tropical Rainforests. A Practitioner's Guide to Forest Genetics*. Springer Dordrecht Heidelberg London New York, pp. 69-82.
4. Shaharuddin M.I and **Wickneswari R.** 2011. Chapter 6. Synthesis and Options for Sustainable Management. *In: Wickneswari R. and Cannon C.H. (eds.) 2011. Managing the Future of Southeast Asia's Valuable Tropical Rainforests. A Practitioner's Guide to Forest Genetics*. Springer Dordrecht Heidelberg London New York, pp. 93-98.
5. **Wickneswari R.** and Cannon C.H. (eds.) 2011. Managing the Future of Southeast Asia's Valuable Tropical Rainforests. *A Practitioner's Guide to Forest Genetics*. Springer Dordrecht Heidelberg London New York, 106p.

PATENT/INTELLECTUAL PROPERTY

New Plant Variety

2009 Registration of **eight (8)** high yielding/early maturing new rice genotypes and **three (3)** new high yielding red pericarp genotypes as New Plant Varieties. The assigned registration numbers are PVBT031/09, PVBT032/09, PVBT033/09, PVBT034/09, PVBT035/09, PVBT036/09, PVBT037/09, PVBT038/09, PVBT039/09, PVBT040/09 and PVBT041/09.

Patent

2010 Title of invention: Techniques for isolation of CCoAOMT (Application No. PI 2010003747, Filing date:9 August 2010)