

REFERENCES

- Achard, P., Herr, A., Baulcombe, D. C., & Harberd, N. P. (2004). Modulation of floral development by a gibberellins regulated microRNA. *Development* **131**: 3357-3365.
- Adam, H., Jouannic, S, Escoute, J., Duval, Y., Verdeil, J. L., & Tregear, J. W. (2005). Reproductive developmental complexity in the African oil palm (*Elaeis guineensis*). *American Journal of Botany* **92**: 1836-1852.
- Ahmad, A. L., Ismail, S., & Bhatia, S. (2003). Water recycling from palm oil mill effluent (POME) using membrane technology. *Desalination* **157(1-3)**: 87-95.
- Allen, E., Xie, Z., Gustafson, A. M., & Carrington, J. C. (2005). microRNA directed phasing during trans-acting siRNA biogenesis in plants. *Cell* **121**: 207-221.
- Allen, E., Xie, Z., Gustafson, A. M., Sung, G. H., Spatafora, J. W., & Carrington, J. C. (2004). Evolution of microRNA genes by inverted duplication of target gene sequences in *Arabidopsis thaliana*. *Nature Genetics* **36(12)**: 1282-1290.
- Alves-Junior, L., Niemeier, S., Hauenschild, A., Rehmsmeier, M., & Merkle, T. (2009). Comprehensive prediction of novel microRNA targets in *Arabidopsis thaliana*. *Nucleic Acids Research* **37(12)**: 4010-4021.
- Ambros, V., Lee, R. C., Lavanway, A., Williams, P. T., & Jewell, D. (2003). MicroRNAs and other tiny endogenous RNAs in *C. elegans*. *Current Biology* **13**: 807-818.

Aukerman, M. J. & Sakai, H., (2003). Regulation of Flowering Time and Floral Organ Identity by a MicroRNA and Its APETALA2 -Like Target Genes. *Plant Cell* **15**: 2730-2741.

Axtell, M. J. & Bartel, D. P., (2005). Antiquity of microRNAs and their targets in land plants. *Plant Cell* **17**: 1658-1673.

Axtell, M. J. & Bowman, J. L., (2008). Evolution of plant microRNAs and their targets. *Trends in Plant Science* **13**: 343-349.

Axtell, M. J., Snyder, J. A., & Bartel, D. P. (2007). Common functions for diverse small RNAs of land plants. *Plant Cell* **19**: 1750–1769.

Baker, C. C., Sieber, P., Wellmer, F., & Meyerowitz, E. M. (2005). The early extra petals1 mutant uncovers a role for microRNA miR164c in regulating petal number in Arabidopsis. *Current Biology* **15**: 303-315.

Bari, S., Yu, C. W., & Lim, T. H. (2002). Performance deterioration and durability issues while running a diesel engine with crude palm oil, Proc. I Mech E Part D, J. *Automobile Engineering* **216**: 785-792.

Bartel D. P. (2004). MicroRNAs: Genomics, biogenesis, mechanism, and function. *Cell* **116**: 281-297.

Bartel, B., & Bartel, D. P. (2003). MicroRNAs: at the root of plant development. *Plant Physiology* **132**: 709-717.

Beinaret, A., & Vanderweyen, R. (1941). Contribution the genetic and biometric study in varieties of *Elaeis guineensis* Jacq. *Publication INEAC, Série Scientifique* **27**: 20-35.

Billy, E., Brondani, V., Zhang, H., Müller, U., & Filipowicz, W. (2001). Specific interference with gene expression induced by long, double-stranded RNA in mouse embryonal teratocarcinoma cell lines. *PNAS* **98(25)**: 14428-14433.

Biradar, N. V. (1978). An unusual inflorescence in *Elaeis guineensis*. *Principes*. **22**: 115.

Canella, D., Gilmour, S. J., Kuhn, L. A., & Thomashow, M. F. (2010). DNA binding by the Arabidopsis CBF1 transcription factor requires the PKKP/RAGR_xKFxETRHP signature sequence. *Biochimica et Biophysica Acta* **1799**: 454-462.

Cannell, I. G., Kong, Y. W., & Bushell, M. (2008). How do microRNAs regulate gene expression? *Biochemical Society Transactions* **36**: 1224-1231.

Carrington, J. C., & Ambros, V. (2003). Role of microRNAs in plant and animal development. *Science* **301**: 336-338.

Cerutti, H., & Casas-Mollano, J. A. (2006). On the Origin and Functions of RNA-Mediated Silencing: From Protists to Man. *Current Genetics* **50**: 81-99.

Chapman, E. J., & Carrington, J. C. (2007). Specialization and evolution of endogenous small RNA pathways. *Nature Reviews Genetics*. **8(11)**: 884-896.

Chellappan, P., Xia, J., Zhou, X., Gao, S., Zhang, X., Coutino, G., et al. (2010). siRNAs from miRNA sites mediate DNA methylation of target genes. *Nucleic Acids Research* 1-12.

Chen, J., Li, W. X., Xie, D., Peng, J. R., & Ding, S. W. (2004). Viral virulence protein suppresses RNA silencing-mediated defense but upregulates the role of microRNA in host gene expression. *Plant Cell* **16**:1302-1313.

Chen, K., & Rajewsky, N. (2007). The evolution of gene regulation by transcription factors and microRNAs. *Nature Reviews Genetics* **8(2)**: 93-103.

Chen, X. (2004). A microRNA as a translational repressor of APETALA2 in Arabidopsis flower development. *Science* **303**: 2022-2025.

Chen, X. (2005). microRNA biogenesis and function in plants. *FEBS Letters* **579**: 5923-5931.

Chen, X. (2009). Small RNAs and Their Roles in Plant Development. *Annual Review of Cell and Developmental Biology* **25**: 21-44.

Chuck, G., Meeley, R., & Hake, S. (2008). Floral meristem initiation and meristem cell fate are regulated by the maize AP2 genes *ids1* and *sid1*. *Development* **135**: 3013-3019.

Chuck, G., Cigan, A. M., Saeteurn, K., & Hake, S. (2007a). The heterochronic maize mutant *Corngrass1* results from overexpression of a tandem microRNA. *Nature Genetics* **39**: 544-549.

Chuck, G., Meeley, R., Irish, E., Sakai, H., & Hake, S. (2007b). The maize tasselseed4 microRNA controls sex determination and meristem cell fate by targeting *Tasselseed6/indeterminate spikelet1*. *Nature Genetics* **39**: 12.

Corley R. H. V., & Tinker, P. B. (2003). *The oil palm* (4th ed.). Oxford: Blackwell Science.

Corley, R. H. V. (1976). Germination and seedling growth. (R. H. V. Corley, J. J. Hardon & B. J. Wood, Ed.), *Oil Palm Research, Developments in crop science*. Amsterdam: Elsevier Scientific Publishing Company 23-36.

Ding, D., Zhang, L., Wang, H., Liu, Z., Zhang, Z., & Zheng, Y. (2009). Differential expression of miRNAs in response to salt stress in maize roots. *Annals of Botany* **103**: 29-38.

Dransfield, J., & Uhl, N. W. (1998). *Palmae*. (K. Kubitzki, Ed.), *Families and genera of vascular plants, flowering plants monocotyledons* **4**: 306-389. Berlin: Springer.

Dryanova, A., Zakharov, A., & Gulick, P. J. (2008). Data mining for miRNAs and their targets in the *Triticeae*. *Genome* **51**: 433-443.

- Du, T., & Zamore, P. D. (2005). microPrimer: the biogenesis and function of microRNA. *Development* **132(21)**: 4645-4652.
- Dugas, D. V., & Bartel, B. (2008). Sucrose induction of Arabidopsis miR398 represses two Cu/Zn superoxide dismutases. *Plant Molecular Biology* **67**: 403-417.
- Edem, D. O. (2002). Palm oil: biochemical, physiological, nutritional, hematological and toxicological aspects: a review. *Plant Foods for Human Nutrition* **57**: 319-341.
- Elbashir, S. M., Lendeckel, W., & Tuschl, T. (2001). RNA interference is mediated by 21-and 22-nucleotide RNAs. *Genes & Development* **15**: 188-200.
- Fahlgren, N., Jogdeo, S., Kasschau, K. D., Sullivan, C. M., Chapman, E. J., Laubinger, S., et al. (2010). MicroRNA gene evolution in *Arabidopsis lyrata* and *Arabidopsis thaliana*. *The Plant Cell* **22**: 1074-1089.
- Filipowicz, W., Bhattacharyya, S. N., & Sonenberg, N. (2008). Mechanisms of post-transcriptional regulation by microRNAs: are the answers in sight? *Nature Reviews Genetics* **9**: 102-14.
- Fujii, H., Chiou, T. J., Lin, S. I., Aung, K., & Zhu, J. K. (2005). A miRNA involved in phosphate-starvation response in Arabidopsis. *Current Biology* **15**: 2038-2043.
- Garcia, D. (2008). A miRacle in plant development: Role of microRNAs in cell differentiation and patterning. Semin. *Cell and Developmental Biology* **19**: 586-595.

Gazzani, S., Li, M., Maistri, S., Scarponi, E., Graziola, M., Barbaro, E., Wunder, J., et al. (2009). Evolution of MIR168 paralogs in Brassicaceae. *BMC Evolutionary Biology* **9**: 62.

Glazińska, P., Zienkiewicz, A., Wojciechowski, W., & Kopcewicz, J. (2009). The putative miR172 target gene InAPETALA2-like is involved in the photoperiodic flower induction of *Ipomoea nil*. *Journal of Plant Physiology* **166**: 1801-1813.

Griffiths-Jones, S., Saini, H. K., van Dongen, S., & Enright, A. J. (2008). miRBase: tools for microRNA genomics. *Nucleic Acids Research* **36**: D154-D158.

Grivna, S. T., Beyret, E., Wang, Z., & Lin, H. (2006). A novel class of small RNAs in mouse spermatogenic cells. *Genes & Development* **20**: 1709-1714.

Guddeti, S., Zhang, C., Li, A. L., Leseberg, C. H., Kang, H., Li, X. G., et al. (2005). Molecular evolution of the rice miR395 gene family. *Cell* **15**: 631-638.

Guo, H. S., Xie, Q., Fei, J. F., & Chua, N. H. (2005). MicroRNA directs mRNA cleavage of the transcription factor NAC1 to downregulate auxin signals for Arabidopsis lateral root development. *Plant Cell* **17**: 1376-1386.

Hahn, W. J. (2002). A phylogenetic analysis of the Arecoïd Line of palms based on plastid DNA sequence data. *Molecular Phylogenetics and Evolution* **23**: 189-204.

Hammond, S. M., Bernstein, E., Beach, D., & Hannon, G. J. (2000). An RNA directed nuclease mediates post-transcriptional gene silencing in *Drosophila* cells. *Nature* **404**: 293-296.

Hartley, C. W. S. (1988). *The Oil Palm* (3rd ed.). New York: John Wiley & Sons, Inc.

He, L., & Hannon, G. J. (2004). MicroRNAs: Small RNAs with a big role in gene regulation. *Nature Reviews Genetics* **5**: 522-531.

Hinz, M., Wilson, I. W., Yang, J., Buerstenbinder, K., Llewellyn, D., Dennis, E. S., et al. (2010). Arabidopsis RAP2.2: An Ethylene Response Transcription Factor That Is Important for Hypoxia Survival. *Plant Physiology* **153**: 757-772.

Humphreys, D. T., Westman, B. J., Martin, D. I. K., & Preiss, T. (2005). MicroRNAs control translation initiation by inhibiting eIF4E/cap and poly(A) tail function. *PNAS* **102**: 16961-16966.

Itaya, A., Bundschuhc, R., Archuala, A. J., Joung, J. G., Feif, Z., Daih, X., et al. (2008). Small RNAs in tomato fruit and leaf development. *Biochim Biophys Acta* **1779(2)**: 99-107.

Jack, T. (2004). Molecular and genetic mechanisms of floral control. *The Plant Cell* **16**: S1-S17.

Jiang, D., Yin, C., Yu, A., Zhou, X., Liang, W., Yuan, Z., et al. (2006). Duplication and expression analysis of multicopy miRNA gene family members in Arabidopsis and rice. *Cell Research* **16**: 507-518.

Jones, D. L. (1995). *Palms Throughout the World*. Washington, DC: Smithsonian Institution Press.

Jones-Rhoades, M. W. (2010). Prediction of Plant miRNA Genes. *Plant MicroRNAs. Methods in Molecular Biology* **592**: 19-30.

Jones-Rhoades, M. W., & Bartel, D. P. (2004). Computational identification of plant microRNAs and their targets, including a stress-induced miRNA. *Molecular Cell* **14**: 787-799.

Jones-Rhoades, M. W., Bartel, D. P., & Bartel, B. (2006). microRNAs and their regulatory roles in plants. *Annual Review of Plant Biology* **57**: 19-53.

Jover-Gil, S., Candela, H., & Ponce, M. R. (2005). Plant microRNAs and development. *International Journal of Developmental Biology* **49**: 733-744.

Juarez, M. T., Kui J. S., Thomas, J., Heller, B. A., & Timmermans, M. C. P. (2004). microRNA mediated repression of rolled leaf1 specifies maize leaf polarity. *Nature* **428**: 84-88.

Jung, J. H., Seo, Y. H., Seo, P. J., Reyes, J. L., Yun, J., Chua, N. H., et al. (2007). The GIGANTEA-regulated microRNA172 mediates photoperiodic flowering independent of CONSTANS in Arabidopsis. *Plant Cell* **19**: 2736-2748.

Kasschau, K. D., Xie, Z., Allen, E., Llave, C., Chapman, E. J., Krizan, K. A., et al. (2003). P1/HC-Pro, a viral suppressor of RNA silencing, interferes with Arabidopsis development and miRNA function. *Developmental Cell* **4**: 205-217.

Kerstetter, R. A., & Poethig, R. S. (1998). The specification of leaf identity during shoot development. *Annual Review of Cell and Developmental Biology* **14**: 373-398.

Kidner, C. A., & Martienssen, R. A. (2004). Spatially restricted microRNA directs leaf polarity through ARGONAUTE1. *Nature* **428**: 81-84.

Kiefer, E., Heller, W., & Ernst, D. (2000). A Simple and Efficient Protocol for Isolation of Functional RNA from Plant Tissues Rich in Secondary Metabolites. *Plant Molecular Biology Reporter* **18**: 33-39.

Krol, J., Sobczak, K., Wilczynska, U., Drath, M., Jasinska, A., Kaczynska, D., et al. (2004). Structural features of microRNA precursors and their relevance to miRNA biogenesis and small interfering RNA/short hairpin RNA design. *Journal of Biological Chemistry* **279(40)**: 42230-42239.

Kurihara, Y., & Watanabe, Y. (2004). Arabidopsis micro-RNA biogenesis through Dicer-like 1 protein functions. *PNAS* **101**: 12753-12758.

Lau, N. C., Lim, L. P., Weinstein, E. G., & Bartel, D. P. (2001). An abundant class of tiny RNAs with probable regulatory roles in *Caenorhabditis elegans*. *Science* **294**: 858-862.

Lauter, N., Kampani, A., Carlson, S., Goebel, M., & Moose, S. P. (2005). microRNA172 down-regulates glossy15 to promote vegetative phase change in maize. *PNAS* **102(26)**: 9412-9417

Lee, Y., Jeon, K., Lee, J. T., Kim, S., & Kim, V. N. (2002). MicroRNA maturation: stepwise processing and subcellular localization. *EMBO Journal* **21**: 4663-4670.

Lee, R. C., Feinbaum, R. L., & Ambros, V. (1993). The *C. elegans* heterochronic gene *lin-4* encodes small RNAs with antisense complementarity to *lin-14*. *Cell* **75**: 843-854.

Lee, Y., Ahn, C., Han, J., Choi, H., Kim, J., Yim, J., et al. (2003). The nuclear RNase III Drosha initiates microRNA processing. *Nature* **425**: 415-419.

Li, A., & Mao, L. (2007). Evolution of plant microRNA gene families. *Cell Research* **17**: 212-218.

Lin, Y. C., Lee, W. J., & Hou, H. C. (2006). PAH emissions and energy efficiency of palm biodiesel blends fueled on diesel generator. *Atmospheric Environment* **40**: 3930-3940.

Liu, Q., & Chen, Y. Q. (2009). Insights into the mechanism of plant development: Interactions of miRNAs pathway with phytohormone response. *Biochemical and Biophysical Research Communications* **384(1)**: 1-5.

Liu, Q., Yao, X., Pi, L., Wang, H., Cui, X., & Huang, H. (2009). The ARGONAUTE10 gene modulates shoot apical meristem maintenance and establishment of leaf polarity by repressing miR165/166 in Arabidopsis. *The Plant Journal* **58(1)**: 27-40.

Lund, E., Guttinger, S., Calado, A., Dahlberg, J. E., & Kutay, U. (2004). Nuclear export of microRNA precursors. *Science* **303**: 95-98.

Madon, M., & Clyde, M. (1995). Cytological analysis of *Elaeis guineensis*. *Elaeis* **17(2)**: 124-134.

Maher, C., Timmermans, M., Stein, L., & Ware, D. (2004). Identifying MicroRNAs in Plant Genomes. Proceedings of the CSB '2004: Computational Systems Bioinformatics Conference, Stanford, CA: IEEE, 718-723.

Masani Mat Yunus, A., Ho, C. L., & Parveez, G. K. A. (2001). Construction of PHB gene expression vectors for the production of biodegradable plastics in transgenic oil palm. Kuala Lumpur: Malaysian Palm Oil Board International Palm Oil Congress, 674-711.

Mathieu, J., Yant, L. J., Murdter, F., Kuttner, F. & Schmid, M. (2009). Repression of Flowering by the miR172 Target SMZ. *PLoS Biology* **7(7)**: e1000148.

Matts, J., Jagadeeswaran, G., Roe, B. A. & Sunkar, R. (2010). Identification of microRNAs and their targets in switchgrass, a model biofuel plant species. *Journal of Plant Physiology* **167**: 896-904.

Meyerowitz, E. M. (2002). Plants compared to animals: the broadest comparative study of development. *Science* **295**: 1482-1485.

Mica, E., Piccolo, V., Delledonne, M., Ferrarini, A., Pezzotti, M., Casati, C., et al. (2009). High throughput approaches reveal splicing of primary microRNA transcripts and tissue specific expression of mature microRNAs in *Vitis vinifera*. *BMC Genomics* **10**: 558.

Mlotshwa, S., Yang, Z., Kim, Y., & Chen, X. (2006). Floral patterning defects induced by Arabidopsis APETALA2 and microRNA172 expression in *Nicotiana benthamiana*. *Plant Molecular Biology* **61**: 781-793.

Murchison, E. P., & Hannon, G. J. (2004). miRNAs on the move: miRNA biogenesis and the RNAi machinery. *Current Opinion in Cell Biology* **16(3)**: 223-229.

Nakano, T., Suzuki, K., Fujimura, T., & Shinshi, H. (2006). Genome-wide analysis of the ERF gene family in Arabidopsis and rice. *Plant Physiology*. **140**: 411-432.

Olsen, P. H., & Ambros, V. (1999). The lin-4 regulatory RNA controls developmental timing in *Caenorhabditis elegans* by blocking LIN-14 protein synthesis after the initiation of translation. *Developmental Biology* **216**: 671-680.

Orphanides, G., & Reinberg, D. (2002). A unified theory of gene expression. *Cell* **108(4)**: 439-451.

Palatnik, J. F., Allen, E., Wu, X., Schommer, C., Schwab, R., Carrington, J. C. et al. (2003). Control of leaf morphogenesis by microRNAs. *Nature* **425**: 257-263.

Papp, I., Mette, M. F., Aufsatz, W., Daxinger, L., Schauer, S. E., Ray, A., et al. (2003). Evidence for nuclear processing of plant microRNA and short interfering RNA precursors. *Plant Physiology* **132**: 1382-1390.

Park, M. Y., Wu, G., Gonzalez-Sulser, A., Vaucheret, H., & Poethig, R. S. (2005). Nuclear processing and export of microRNAs in Arabidopsis. *PNAS* **102**: 3691-3696.

Park, W., Li, J., Song, R., Messing, J., & Chen, X. (2002). CARPEL FACTORY, a Dicer homolog, and HEN1, a novel protein, act in microRNA metabolism in *Arabidopsis thaliana*. *Current Biology* **12**: 1484-1495.

Parker, J. S., Roe, S. M., & Barford, D. (2005). Structural insights into mRNA recognition from a PIWI domain- siRNA guide complex. *Nature* **434**: 663-666.

Pillai, R. S., Bhattacharyya, S. N., Artus, C. G., Zoller, T., Cougot, N., Basyuk, E., et al. (2005). Inhibition of translational initiation by Let-7 MicroRNA in human cells. *Science* **309(5740)**: 1573-1576.

Pioch, D., & Vaitilingom, G. (2005). Palm oil and derivatives: fuels or potential fuels? *Oleagineux Corps Gras Lipides* **12**: 161-169.

Price, Z., Mayes, S., Billotte, N., Hafeez, F., Dumortier, F., & MacDonald, D. (2007). Oil Palm. *Genome Mapping and Molecular Breeding in Plants*, **6**: 93-108.

Provost, P., Dishart, D., Doucet, J., Frendewey, D., Samuelsson, B., & Rådmark, O. (2002). Ribonuclease activity and RNA binding of recombinant human Dicer. *EMBO Journal* **21**: 5864-5874.

Qiang, G., AnLing, X., Qing, Y., & ZhiMin, Y. (2007). Bioinformatic identification of miRNAs and their target genes from *Solanum tuberosum* expressed sequence tags. *Chinese Science Bulletin* **52(17)**: 2380-2389.

Qiu, C. X., Xie, F. L., Zhu, Y. Y., Guo, K., Huang, S. Q., Nie, L., et al. (2007). Computational identification of microRNAs and their targets in *Gossypium hirsutum* expressed sequence tags. *Gene* **395**: 49-61.

Rajagopalan, R., Vaucheret, H., Trejo, J., & Bartel, D. P. (2006). A diverse and evolutionarily fluid set of microRNAs in *Arabidopsis thaliana*. *Genes Development* **20**: 3407-3425.

Rana, T. M. (2007). Illuminating the silence: understanding the structure and function of small RNAs. *Nature Reviews Molecular Cell Biology* **8(1)**: 23-36.

Rehmsmeier, M., Steffen, P., Höchsmann, M., & Giegerich, R. (2004). Fast and effective prediction of microRNA/target duplexes. *RNA* **10**: 1507-1517.

Reinhart, B. J., Slack, F. J., Basson, M., Pasquinelli, A. E., Bettinger, J. C., Rougvie, A. E., et al. (2000). The 21-nucleotide let-7 RNA regulates developmental timing in *Caenorhabditis elegans*. *Nature* **403**: 901-906.

Reinhart, B. J., Weinstein, E. G., Rhoades, M. W., Bartel, B., & Bartel, D. P. (2002). MicroRNAs in plants. *Genes Development* **16**: 1616-1626.

Rhoades, M.W., Reinhart, B. J., Lim, L. P., Burge, C. B., Bartel, B., & Bartel, D. P. (2002) Prediction of plant microRNA targets. *Cell* **110**: 513-520.

Rival, A. (2007). Oil Palm. *Biotechnology in Agriculture and Forestry*, Vol. 61, Transgenic Crops VI (E.C. Pua, & M. R. Davey, Ed.). Berlin: Springer-Verlag, 59-80.

Rodriguez, A. Sam Griffiths-Jones, S., Ashurst, J. L., & Bradley, A. (2004). Identification of mammalian microRNA host genes and transcription units. *Genome Research* **14**: 1902-1910.

Ruby, J. G., Stark, A., Johnston, W. K., Kellis, M., Bartel, D. P., & Lai, E. C. (2007). Evolution, biogenesis, expression, and target predictions of a substantially expanded set of *Drosophila* microRNAs. *Genome Research* **17**: 1850-1864.

Salleh, M. A. M., Kisiki, N. H., Yusuf, H. M., & Ab Karim Ghani, W. A. W. (2010). Gasification of Biochar from Empty Fruit Bunch in a Fluidized Bed Reactor. *Energies* **3**: 1344-1352.

Sambrook, J., & Russell, D. W. (2001). *Molecular Cloning: A Laboratory Manual* (3rd ed.). Cold Spring Harbor Laboratory Press. New York, USA.

Schmid, M., Uhlenhaut, N. H., Godard, F., Demar, M., Bressan, R., Weigel, D., et al. (2003). Dissection of floral induction pathways using global expression analysis. *Development* **130**: 6001-6012.

Schwab, R., Palatnik, J. F., Riester, M., Schommer, C., Schmid, M., & Weigel, D. (2005). Specific effects of MicroRNAs on the plant transcriptome. *Developmental Cell* **8**: 517-527.

Shigyo, M., Hasebe, M., & Ito, M. (2006). Molecular evolution of the AP2 subfamily. *Gene* **366**: 256-265.

Simon, S. A., Meyers, B. C., & Sherrier, D. J. (2009). MicroRNAs in the Rhizobia Legume Symbiosis. *Plant Physiology* **151**: 1002-1008.

Subramanian, S., Fu, Y., Sunkar, R., Barbazuk, W. B., Zhu, J. K., & Yu, O. (2008). Novel and nodulation-regulated microRNAs in soybean roots. *BMC Genomics* **9**:160 doi:10.1186/1471-2164-9-160.

Sumathi, S., Chai, S. P., & Mohamed, A. R. (2008). Utilization of oil palm as a source of renewable energy in Malaysia. *Renewable and Sustainable Energy Reviews* **12**(9): 2404-2421.

Tomlinson, P. B. (1990). The structural biology of palms. Oxford Scientific Publications. Oxford, UK.

Uhlenbeck, O. C., & Gumpert, R. I. (1982). *In: The Enzymes*, Vol. XV Part B, Boyer, P.D. ed., Academic Press, New York, USA.

Vandesompele, J., Preter, K. D., Pattyn, F., Poppe, B., Roy, N. V., Paepe, A. D. et al. (2002). Accurate normalization of real-time quantitative RT-PCR data by geometric averaging of multiple internal control genes. *Genome Biology*. **3**: doi: 10.1186/gb-2002-3-7-research0034.

Vaucheret, H. (2009). AGO1 Homeostasis Involves Differential Production of 21-nt and 22-nt miR168 Species by MIR168a and MIR168b. *PLoS One* **4**(7): e6442.

Vaucheret, H., Vazquez, F., Crete, P., & Bartel, D. P. (2004). The action of ARGONAUTE1 in the miRNA pathway and its regulation by the miRNA pathway are crucial for plant development. *Genes Development* **18**: 1187-1197.

Vazquez, F., Gasciolli, V., Crete, P., & Vaucheret, H. (2004) The nuclear dsRNA binding protein HYL1 is required for microRNA accumulation and plant development, but not posttranscriptional transgene silencing. *Current Biology* **14**: 346-351.

Voinnet, O. (2009). Origin, Biogenesis, and Activity of Plant MicroRNAs. *Cell* **136**: 669-687.

Wang J. W., Wang L. J., Mao Y. B., Cai, W. J., Xue, H. W., & Chen, X. Y. (2005). Control of root cap formation by MicroRNA-targeted auxin response factors in *Arabidopsis*. *Plant Cell* **17**: 2204-2216.

Wang, W. X., Gaffney, B., Hunt, A. G., & Tang, G. (2007). MicroRNAs (miRNAs) and Plant Development. *Encyclopedia of Life Sciences* doi: 10.1002/9780470015902.a0020106 (1-10).

Wang, X., & Wang, X. (2006). Systematic identification of microRNA functions by combining target prediction and expression profiling. *Nucleic Acids Research* **34**(5): 1646-1652.

Willmann, M. R., & Poethig, R. S. (2007). Conservation and evolution of miRNA regulatory programs in plant development. *Current Opinion in Plant Biology* **10**(5): 503-511.

Wu, G., & Poethig, R. S. (2006). Temporal regulation of shoot development in *Arabidopsis* by miR156 and its target SPL3. *Development* **133**: 3539-3547.

Wu, G., Park, M. Y., Conway, S. R., Wang, J. W., Weigel, D., & Poethig, R. S. (2009). The Sequential Action of miR156 and miR172 Regulates Developmental Timing in Arabidopsis. *Cell* **138**: 750-759.

Xie, Z., Allen, E., Fahlgren, N., Calamar, A., Givan, S. A., & Carrington, J. C. (2005). Expression of Arabidopsis MIRNA genes. *Plant Physiology*. **138**: 2145-2154.

Xie, Z., Johansen, L. K., Gustafson, A. M., Kasschau, K. D., Lellis, A. D., Zilberman, D., et al. (2004). Genetic and functional diversification of small RNA pathways in plants. *PLoS Biology* **2**: E104.

Xie, Z., Kasschau, K. D., & Carrington, J. C. (2003). Negative feedback regulation of Dicer-Like1 in Arabidopsis by microRNA-guided mRNA degradation. *Current Biology* **13**: 784-789.

Yang, T., Xue, L., & An, L. (2007). Functional diversity of miRNA in plants. *Plant Science* **172(3)**: 423-432.

Yao, Y., Guo, G., Ni, Z., Sunkar, R., Du, J., Zhu, J. K., et al. (2007). Cloning and characterization of microRNAs from wheat (*Triticum aestivum* L.). *Genome Biology* **8(6)**: R96.

Yin, Z. J., & Shen, F. F. (2010). Identification and characterization of conserved microRNAs and their target genes in wheat (*Triticum aestivum*). *Genetics and Molecular Research* **9(2)**: 1186-1196.

Yoo, B. C., Kragler, F., Varkonyi-Gasic, E., Haywood, V., Archer-Evans, S., Lee, Y. M., et al. (2004). A systemic small RNA signaling system in plants. *Plant Cell* **16**: 1979-2000.

Yusoff, S. (2006). Renewable energy from palm oil; innovation on effective utilization of waste. *Journal of Cleaner Production* **14**: 87-93.

Zamore, P. D. (2002). Ancient pathways programmed by small RNAs. *Science* **296**: 1265-1269.

Zhang, B., Wang, Q., Wang, K., Pan, X., Liu, F., Guo, T., et al. (2007b). Identification of cotton microRNAs and their targets. *Gene* **397**: 26-37.

Zhang, B. H., Pan, X. P., Cannon, C. H., Cobb, G. P., & Anderson, T. A. (2006a). Conservation and divergence of plant microRNA genes. *Plant Journal* **46**: 243-259.

Zhang, B. H., Pan, X. P., Cobb, G.P., & Anderson, T. A. (2006b). Plant microRNA: A small regulatory molecule with big impact. *Developmental Biology* **289**: 3-16.

Zhang, B. H., Pan, X. P., Cox, B., Coob, G. P., & Anderson, T. A. (2006c). Evidence that miRNAs are different from other RNAs. *Cellular and Molecular Life Sciences* **63**: 246-254.

Zhang, B., Pan, X., Cobb, G. P., & Anderson, T. A. (2007a). microRNAs as oncogenes and tumor suppressors. *Developmental Biology* **302**: 1-12.

Zhang, B., Wang, Q., & Pan, X. (2007c). MicroRNAs and Their Regulatory Roles in Animals and Plants. *Journal of Cellular Physiology* **210**: 279-289.

Zhang, L., Chia, J. M., Kumari, S., Stein, J. C., Liu, Z., Narechania, A., et al. (2009) A Genome-Wide Characterization of MicroRNA Genes in Maize. *PLoS Genetics* **5(11)**: e1000716.doi:10.1371/ journal.pgen. 1000716.

Zhao, B., Ge, L., Liang, R., Li, W., Ruan, K., Lin, H., et al. (2009). Members of miR-169 family are induced by high salinity and transiently inhibit the NF-YA transcription factor. *BMC Molecular Biology* **10**: 29.

Zhao, T., Li, G., Mi, S., Li, S., Hannon, G. J., Wang, X. J., et al. (2007). A complex system of small RNAs in the unicellular green alga *Chlamydomonas reinhardtii*. *Genes Development* **21**: 1190-1203.

Zhu, Q. H., Upadhyaya, N., Gubler, F., & Helliwell, C. (2009). Over-expression of miR172 causes loss of spikelet determinacy and floral organ abnormalities in rice (*Oryza sativa*). *BMC Plant Biology* **9(1)**: 149.

Zuker, M. (2003). Mfold web server for nucleic acid folding and hybridization prediction. *Nucleic Acids Research* **31(13)**: 3406-3415.

BLAST: Basic Local Alignment Search Tool. (2009).

<http://blast.ncbi.nlm.nih.gov/Blast.cgi>

ClustalW. (2010).

<http://www.ebi.ac.uk/Tools/clustalw/>

EMBL-EBI Database. (2009).

<http://www.ebi.ac.uk/Databases/>

Global Oils & Fats Business Magazine; Malaysian Palm Oil Industry Performance
2008. (2009) **6**: 1.

http://www.mpoc.org.my/gofbm_download.aspx?id=ff6cb4c8-9863-49b2-ae12-ee5e2d5d1f0a

Malaysian Palm Oil Board (MPOB). (2009).

<http://www.mpob.gov.my/>

Malaysian Palm Oil Council (MPOC). (2010).

<http://www.mpoc.org.my>

mfold, Version 3.2. (2009).

<http://mfold.bioinfo.rpi.edu/cgi-bin/rna-form1.cgi>

miRBase, Release 15.0. (2010).

<http://microrna.sanger.ac.uk/sequences/index.shtml>

National Centre for Biotechnology Information. (2010).

<http://www.ncbi.nlm.nih.gov/>

PDA Primer Design. (2008).

<http://dbb.nhri.org.tw/primer/index.html/>

Peter Fassler, Sulzer Technical Review. (Issue 3/2006).

http://www.sulzer.com/Portaldata/7/Resources/03_newsmedia/str/2006/20063faessler_e.pdf/