## **CURRICULUM VITAE**





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3. FIELD OF SPECIALISATION: Plant Genomics & Science Management

4. DATE OF BIRTH/AGE: 19 August 1961

50 years

5. EDUCATION AND ACADEMIC QUALIFICATION

University/College	Date	Qualification
University of Leicester,	October 1985- August 1989	Ph.D. (Plant Molecular &
United Kingdom		Developmental Biology)
Wye College, University of	October 1982- July 1985	B.Sc. (Hon 2.1) Plant Sciences
London, United Kingdom		
Brighton Technical College	October 1980- June 1982	H.N.D. (Applied Biology)

## 6. PREVIOUS ACADEMIC POSITIONS

Post	Date of Appointment	Attachment
Visiting Post-doctoral	Jan 1990- Oct 1991	Department of Biophysics and
fellow		Biochemistry, University of
		California, Davis, USA.
Biotechnologist	Nov 1991- May 1995	Research & Development
Ç		Department, Golden Hope
		Plantations BhD, Malaysia.

Post	Date of Appointment	Attachment
Lecturer & Associate Professor	June 1995 – March 2000	Department of Biotechnology, Faculty of Food Science & Biotechnology, Universiti Putra Malaysia
Associate Professor	April 2000- September 2001	Head, Genome Centre, Institute of Bioscience, Universiti Putra Malaysia
Visiting Scientist	July 2001- Jan 2002	Dept of Biology, Massachusetts Institute of Technology, Cambridge, USA
Associate Professor	Jan 2002-Jun 2003	Dept of Biotechnology, Faculty of Food Science & Biotechnology, Universiti Putra Malaysia
General Manager	Jul 2003- Jan 2005	Biotechnology Division, Sime Darby Technology Centre.
Adjunct Professor	2004- 2008	Asian Institute of Medicine, Science & Technology (AIMST)
Adjunct Professor	2003- 2004	Malaysian University of Science & Technology (MUST)
Director of Research	Jan 2005- 2007	Sime Darby Technology Centre.
Chairman	July 2006- June 2009	Malaysian Biotechnology Industry Organisation (MBIO)
Head, Quantum Leap R&D, Senior Vice President II	Nov 2007-present	Sime Darby Technology Centre.
Chief Executive Officer	2009- 2010	Sime Darby Genomics

# 7. Awards Received

Award	Year
Mona Chapman Award for excellence in Plant Science, University of London	1985
ORS Award; UK Government	1986, 1987, 1988

Chinese Government, State Science &	2-18 Nov 1992
Technology Commission Award to attend:	
International Training Course on	
Biotechnology of Tropical Crops.	
Short-listed for Golden Hope Innovations	Nov 1994
Award.	
ADB Post-Graduate Fellowship	Oct- Nov 1995
ICRO Award to attend Course on Analysis	10-21 March 1997
and Manipulation of the Plant Genome.	
Sponsored by UNU, ICRO, BAC &	
ISPMB	
Japanese Government AMBO fellowship	March 1999
for AMBO Workshop and Training	
Course on "Advanced Techniques in	
Structural Biology"	
Universiti Putra Malaysia: Excellent	2000
Service Award for year 2000	

### 8. PUBLICATIONS

## A) Publications in referred journals

- 1. E.M. Paul, K. Harikrishna, O. Fioroni, J. Draper (1989). Dedifferentiation of Asparagus officinalis L. mesophyll cells during initiation of cell cultures. *Plant Science*, 65, 111-117.
- 2. **K. Harikrishna**, E. Paul, R. Darby, J. Draper (1991). Wound response and cell cycle reactivation in Asparagus mesophyll cells: A model monocotyledon system. *Journal of Experimental Botany*, **42**, 791-799.
- 3. **K. Harikrishna**, R. Darby, J. Draper (1992). Chloroplast dedifferentiation in mechanically isolated Asparagus cells during culture initiation. *Plant Physiology*, **100**, 1177-1183.
- 4 **K. Harikrishna.**, Rachanee Jampates-Beale, Steven Milligan and Charles S Gasser (1996). An endochitinase gene expressed at high levels in the stylar transmitting tissue of tomatoes. *Plant Molecular Biology*, **30**, 899-911.
- 5. Son Radu., Zainuri, A., Rusul, G., Karim, M.I.A., Ali, A.M., Harikrishna, K., (1997). Survival of genetically engineered *Escherichia coli* in river water. *Tropical Biomedicine* 14, 19-26.
- 6. A.K.M. Mohiuddin, M.K.U. Chowdhury, Zaliha C. Abdullah., **K. Harikrishna** and Suhaimi Napis (1997). Rapid shoot regeneration of cucumber (*Cucumis sativus* L.) using 6-benzylaminopurine. *Science International Journal*, **9**, (2), 207-209.
- 7. A.K.M. Mohiuddin, M.K.U. Chowdhury, Zaliha C. Abdullah., **K. Harikrishna** and Suhaimi Napis (1998). Studies on the improvement of *in vitro* shoot regeneration of muskmelon (*Cucumis melo* L) cv Birdie. *Asia Pacific J. of Molecular Biology & Biotechnology*. **6** (1), 69-74.
- 8 S. Napis, A.K.M. Mohiuddin, M.K.U. Chowdhury, Zaliha C. Abdullah., **K. Harikrishna** (1998). Factors affecting *in vitro* adventitious shoot regeneration of muskmelon (*Cucumis melo* L.) cv. Birdie. *Science International.* 10 (2) 143-146.
- 9. Sharifah Shahrul Rabiah bt Syed Alwee, **Harikrishna Kulaveerasingam** & Suhaimi Napis (1999). Protein analysis of shoot apical meristem of oil palm during transition from vegetative meristem to an inflorescence meristem. *Journal of Oil Palm Research*, October 1999 46-53.
- 10. A.K.M. Mohiuddin, **K. Harikrishna**, M.K.U. Chowdhury, Zaliha C. Abdullah., and Suhaimi Napis (2000). Influence of acetosyringone on *Agrobacterium*-mediated transformation of cucumber (*Cucumis sativus* L.) *Plant Tissue Culture Journal*, **10** (2), 167-173.

- 11. Sh. Shahrul Rabiah Syed Alwee, Lim Chin Ching and Harikrishna Kulaveerasingam (2000). Isolation and Identification of Differentially Expressed Genes from Oil Palm Flowers. *Asia Pacific Journal of Molecular Biology and Biotechnology.* 8 (2), 115-121.
- 12. Parameswari Namasivayam, Meilina Ong Abdullah, and **Harikrishna Kulaveerasingam** (2001). Cell Cycle genes and somatic embryogenesis of oil palm: Potential roles. *Oil Palm Bulletin*, **42**, 15-19.
- 13. Amin, I., Jinap, S., Jamilah, B., **Harikrishna, K.**, Biehl, B (2001). Oligopeptide patterns produced from *Theobroma cacao* 1 of various genetic origins. *J. Sci. Food Agric*. 82 (7), 733-737
- 14. Parameswari Namasivayam, Meilina Ong Abdullah, and **Harikrishna Kulaveerasingam** (2001). Sequence Analysis and Characterization of an Oil Palm (*Elaeis guineensis* Jacq.) cDNA Encoding Calmodulin. *Asia Pacific Journal of Molecular Biology and Biotechnology*. **9**, (1) 45-51.
- 15. Latiffah, Z., Abdullah, F., Tan, S.G., **Harikrishna**, K., Ho, Y.W. (2002). Morphological and growth characteristics, and incompatibility of Ganoderma from infected oil palm and coconut stumps. *Malaysian*. *Applied Biology*, **31** (1): 37-48.
- 16. Philip Lessard, **Harikrishna Kulaveerasingam**, Greg York, Amie Strong, Anthony J Sinskey (2002). Manipulating Gene Expression for the Metabolic Engineering of Plants. *Metabolic Engineering*. **4**, 67-79
- 17. Au, SL., Tan SH., **Harikrishna**, **K.**, Napis, S (2002). Isolation and characterization of cDNA clones encoding ADP-Glucose pyrophophorylase (AGP) from Sago Palm (*Metroxylon sagu*). *Journal of Biochemistry, Molecular Biology and Biophysics*. **6** (5), 301-308.
- 18. Latifah, Z., **Harikrishna**, K., Tan S.H., Tan, S.G., Abdullah, F & Ho, Y.W. (2002). Restriction analysis and sequencing of the ITS regions and 5.8S gene of rDNA of *Ganoderma* isolates from infected oil palm and coconut stumps in Malaysia. *Annals of Applied Biology*, 141, 133-142.
- 19. Wan-Chin Teoh, Suan-Choo Cheah, **Kulaveerasingam Harikrishna**, Siang-Hee Tan (2003). Isolation characterisation of *Myb*-related genes from oil palm (*Elaeis guineensis* Jacq). *J. Plant Biology*, **46**, (2) 95-104.
- 20. S.S. Hwang, S.C. Cheah, **H. Kulaveerasingam** and S.H. Tan (2003). Molecular Cloning and characterization of s-adenomethione synthetase isolated from suspension culture cDNA Library of oil palm (*Elaeis guineensis* Jacq). *Pakistan Journal of Biological Sciences*. **6**(16):1468-1475.
- 21. Ho C.L., **K. Harikrishna** (2003). DNA Amplification Variation of Turf Grasses by Amplified Fragment Length Polymorphism (AFLP). *Asia Pacific Journal of Molecular Biology and Biotechnology.* **11** (1), 51-56.
- 22. R., Sekeli, Y.Y.W. Tan., **K. Harikrishna**., S. Napis and S.H, Tan (2003). Isolation and cloning of a cDNA encoding chitinase from developing winged bean seed (*Psophocarpus tetragonolubus*). *Asia Pacific Journal of Molecular Biology and Biotechnology*. **11** (2) 63-69.
- 23. See Pao Theen, Siti Suhaila Abdul Rahman, Chin Chew Foan, **Harikrishna Kulaveerasingam** (2003). Identification of differentially expressed genes during somatic embryogenesis of *Axonopus compressus* by restriction fragment differential display-coupled FSD. *Asia Pacific Journal of Molecular Biology and Biotechnology.* **11** (2) 71-76.
- 24. AKM Mohiuddin, **K Harikrishna**, MKU Chowdhury, ZC Abdullah and S Napis (2003). Enhancement of cucumber somaclone production by growth regulator BAP. *Bangladesh J of Plant Breeding and Genetics*, **16** (2), 9-16.
- 25. Pick Kuen Chan, Hirzun Mohd Yusuf, Clemente Michael Wong Vui Ling and Harikrishna Kulaveerasingam (2004). The identification and characterization of a novel transcription factor LeCBP, a potential regulator of the tomato stylar Chi2;1 promoter. *Plant Science*, 167 (6), 1291-1300.
- 26. AKM Mohiuddin, **K Harikrishna**, MKU Chowdhury, ZC Abdullah and S Napis (2005). Genetic Transformation of Muskmelon (*Cucumis melo L.*) by *Agrobacterium tumefaciens*. *Journal Bioscience*, **16** (1), 13-26.

- 27. Pick Kuen Chan, Hirzun Mohd Yusuf, Clemente Michael Wong Vui Ling and Harikrishna Kulaveerasingam (2006). Isolation and characterization of a novel pistil predominant gene that binds weakly to the chitinase, Chi2;1 promoter of tomato. *Asia Pacific Journal of Molecular Biology and Biotechnology*, 14 (1), 19-26.
- 28. Keng-See Chow, Kiew Lan Wan, Mohd. Noor Mat Isa, Azlina Bahari, Siang-Hee Tan, Harikrishna K., Hoong-Yeet Yeang (2007). Insights into Rubber Biosynthesis from Transcriptome Analysis of *Hevea brasiliensis* Latex. *Journal of Experimental Botany*, 58 (10): 2429-2440
- 29. Chai Ling Ho, Yen Yen Kwan, Mei-Chooi Choi, Sue-Sean Tee, Wai-Har Ng, Kok-Ang Lee, Yang-Ping Lee, Siew Eng Ooi, Weng-Wah Lee, Jin-Ming Tee, Siang-Hee Tan, **Harikrishna K**, Sharifah Shahrul Rabiah Syed Alwee, Meilina Ong Abdullah (2007). Analysis and functional annotation of expressed sequence tags (ESTs) from multiple tissues of oil palm (*Elaeis guineensis* Jacq.). *BMC Genomics*, 8: 381.
- 30. Yick-Ching Wong, Chai-Ling Ho, **Harikrishna Kulaveerasingam**, Abdullah Md Zain, Suhaimi Napis and Faridah Qamaruz Zaman (2007). Analyses of Expressed Sequence Tags (ESTs) from Rice Panicles of the indica Rice Cultivar MR84 during Reproductive and Grain Filling Stages. *Asia Pacific Journal of Molecular Biology and Biotechnology*, **15** (2), 81-90.
- 31. Nadirah Md Nasaruddin, **K.Harikrishna**, Rofina Yasmin Othman, Lim Saw Hoon and Jennifer Ann Harikrishna (2007). Computational prediction of microRNAs from Oil Palm (*Elaeis guineensis Jacq.*) expressed sequence tags (ESTs). Accepted *Asia Pacific Journal of Molecular Biology and Biotechnology*.
- 32. Ooi, S.E., **Harikrishna**, K., Ong-Abdullah, M (2008). Isolation and characterization of a putative serine/threonine kinase expressed during oil palm tissue culture. *Journal of Oil Palm Research*, 1, 14-.22
- 33. Mohiuddin AKM, Zaliha C. Adullah, M. K. U. Chowdhury, K. Harikrishna and Suhaimi Napis (2009). Factors enhancing virulence response of agrobacteria in cucumber (*Cucumis sativus* L.). *The Agriculturists*. 7(1&2): 72-81.
- 34. Bee Keat Neoh; Huey Fang The, Jaime Yoke Sum Low, Nalisha Ithnin, May Ping Li Hong, Yin Mee Thang, Mohamad Sanusi Jangi, **Harikrishna Kulaveerasingam** (2010) *Elaeis guineensis*: Co-factors Extraction & HPLC Analysis. Journal of Chromatography A. Accepted
- 35. **Mohiuddin AKM**, Zaliha C. Adullah, M. K. U. Chowdhury, K. Harikrishna and Suhaimi Napis (2011). Enhanced Virulence Gene Activity of *Agrobacterium* in Muskmelon (*Cucumis melo* L.) cv. Birdie. *Notulae Scientia Biologica*. 3(2): 71-79.
- 36. Claude Bakoumé, Mohamad Yusoff Aziah, Tangaya Praveena, Chee Keng Teh, Khadjah Rais Siti, Yahya Suzaini, Mohamad Mohaimi, Musa Hamidah, Mohamad Sanusi Jangi, Mohd Nazir Basiran, Hashim Khairudin, **Kulaveersingam Harikrishna** (2011). DNA Sequence-based Markers for Verification of Ramet-to-Ortet Relationship in Oil Palm (*Elaeis guineensis* Jacq.) Submitted to *Canadian Journal of Plant Sciences*.

# b) Invited Papers, Publications in Proceedings, Books, Conferences and Seminars.

- 1. **H. Kulaveerasingam**, E.M. Paul., J. Draper (1987). Gene expression during dedifferentiation of *Asparagus* cells. In Proceedings of the "Twenty ninth Harden Conference". U.K.
- 2. Elizabeth Paul, Orietta Fioroni, **H. Kulaveerasingam**, J. Draper (1988). Reactivation of the cell cycle during asparagus cell dedifferentiation. In Proceedings of Eucarpia Conference: 'Genetic Manipulation in Plant Breeding', Helsingor, Denmark, Plenum Press.
- 3. J. Draper, O. Fioroni, K. Harikrishna, E.Paul, M. Owen, S. Warner and R. Scott (1989). Gene expression during cellular dedifferentiation and the reactivation of the cell cycle. Invited paper: Society for Experimental Biology, Edinburgh Meeting, 1989.

- **4. K. Harikrishna**, Rachanee Jampates-Beale, C.S. Gasser (1991). A basic chitinase is expressed at high levels in the transmitting tissue of tomatoes. In Proceedings of the "Third International Congress of Plant Molecular Biology" Tucson, Arizona, USA.
- 5. John Draper, Simon Warner, Robert Darby, Joy Wilkinson, Kulaveerasingam Harikrishna, Simon Firek, Aideen Gill, Karl Deacon, Rod Scott (1991). Gene expression at sites of wounding and pathogen invasion. In Proceedings of the "Third International Congress of Plant Molecular Biology" Tucson, Arizona, USA.
- 6. CS Gasser, K. Harikrishna, Rachanee Jampates-Beale, Steven Milligan, K. Robinson-Beers (1992). Tissue specific gene expression in tomato pistils. In, Molecular Biology of Tomato: Fundamental Advances and Crop Improvement. Ed: J. Yoder, Technomic Publishing, Lancaster Pennsylvania, USA.
- 7. K. Harikrishna (1993). RNA extraction from tropical plants. In, 'Transactions of the Malaysian Society of Plant Physiology'.
- 8. **K. Harikrishna** (1996). An endochitinase gene expressed at high levels in the stylar transmitting tissue of tomatoes. Invited paper presented at the Scientific Forum of the Malaysian Society for Molecular Biology and Biotechnology, June 6, University Malaya, Kuala Lumpur.
- 9. Mohiuddin, A.K.M., Chowdhury, M.K.U., Abdullah, Z.C., **Harikrishna, K.**, Napis, S (1997). Potential application of BAP in enhancing production of *in vitro* phenotypically normal cucurbit plants. Presented at 3<sup>rd</sup> symposium on 'Trends in Biotechnology', UPM Serdang.
- 10. Yunus, A.G., **H. Kulaveerasingam** & H. Mat Daud (1997). Agricultural development in Malaysia with special reference to biotechnology. Presented at the APO-AVRDC Seminar on Biotechnology in Agriculture. 3-8 November, Tainan, Taiwan.
- 11. Melina O. Abdullah., Girlie Wong., **Harikrishna Kulaveerasingam** (1997). Somatic embryogenesis of the oil palm. In Proceedings of the '5<sup>th</sup> International Congress of Plant Molecular Biology', Singapore.
- 12. Sharifah S. Syed Alwee., Suhaimi Napis., Paranjothy Karthigesu., **Harikrishna Kulaveerasingam** (1997). Isolation and characterisation of flower predominant genes from oil palm. In Proceedings of the '5<sup>th</sup> International Congress of Plant Molecular Biology', Singapore.
- 13. Meta Sritua Arief., Rogayah Sekeli., Yoon Soo Lee., Rofina Yasmin Othman., **K. Harikrishna** (1997). The development of a transformation and regeneration system for the local tomato cultivars MT 1 and MT II. In Proceedings of the 9<sup>th</sup> National Biotechnology Seminar, Penang.
- 14. Wickneswari R., K. Harikrishna (1997). Potential Applications of Molecular Biology Techniques in Tropical Tree Improvement. Presented at 'Congress for forestry and forest product research' FRIM, Kepong
- 15. **K. Harikrishna**, Tan Soon Guan and J.A Harikrishna (1997). The cloning of novel genes and its utility to plant breeding. Presented at the seminar on 'Research development in molecular linkage maps in perennial tree crops'. Organised by PORIM, Port Dickson.
- 16. A.K.M. Mohiuddin, M.K.U. Chowdhury, Zaliha C. Abdullah., K. Harikrishna and Suhaimi Napis (1998). Transformation of cucumber and muskmelon with intron containing GUS gene using Agrobacterium tumefaciens. Proceedings of the 8<sup>th</sup> scientific meeting of Molecular Biology and Biotechnology. Technology Park, Kuala Lumpur, Malaysia.
- 17. Lim Chin Ching, Sh Shahrul Rabiah bt Syed Alwee & K. Harikrishna (1998). An assessment of the 'Cold plaque' hybridisation technique as a means to isolate low abundance cDNA clones. Proceedings of the 8<sup>th</sup> Scientific Meeting of Molecular Biology and Biotechnology. Technology Park, Kuala Lumpur, Malaysia.
- 18. Parveez, G.K.A., Tahir, F., **Harikrishna, K.**, Napis, S., Cheah, S.C. (1998). Production of Transgenic oil palm via Microprojectile Bombardment. Proceedings of the International Congress on *In Vitro* Biology, May 31-June 3, 1998.

- 19. G.K.A. Parveez, **K. Harikrishna** & Paul Christou (1998). Production of herbicide resistance transgenic oil palm (*Elaeis guineensis* Jacq.) plants via microprojectile bombardment. Proceedings of the 4<sup>th</sup> Asia-Pacific Conference on Agricultural Biotechnology. 13 July-16 July Darwin, Australia.
- 20. Sharifah Shahrul Rabiah bt Syed Alwee & **Harikrishna Kulaveerasingam** (1998). Oil Palm Flower Development. Submitted to "Biotechnology of the Oil Palm" Ed Shah, FH & Rajanaidu, N.
- 21. Norlia, Bashiruddin., **Harikrishna**, K., Raha, A.R., Suhaimi, N. (1998). Effect of RAPD parameters on cocoa amplified products. Proceedings of the Third National Congress on Genetics. 18-19 November, UKM, Bangi pp 252-257
- 22. Phebe Ding, Siti Hajar Ahmad, Hasanah Mohd Ghazali & Harikrishna Kulaveerasingam (1998). Changes in polyphenoloxidase activity and protein profile in relation to ascorbic acid and maturity stages of minimally processed carambola (*Averrhoa carambola* L.). 10<sup>th</sup> National Biotechnology Seminar. SIRIM, Shah Alam.
- 23. Poospooragi, R., Mahmood, M., **Harikrishna**, K., Abdullah, T (1998). Regeneration and *Agrobacterium*-mediated gene transfer system for Melastoma sp. 10<sup>th</sup> National Biotechnology Seminar. SIRIM, Shah Alam
- 24. Tohirah, L.A., **Harikrishna**, K., Wong, C.C. (1998). An examination of protein profile, growth and flower characteristics of tulip under different forcing temperatures. 10<sup>th</sup> National Biotechnology Seminar. SIRIM, Shah Alam.
- 25. A. Sipat, O.W. Kean, S. Manickam, **H. Kulaveerasingam**, A.B. Umi Kalsom & M. Marziah (1998). Isolation of the genes for flavanone-3-hydroxylase, chalcone synthase and dihydroflavanol reductase from orchid (*Oncidium* taka) using RT-PCR. 8<sup>th</sup> FAOBMB Congress, Kuala Lumpur.
- 26. Latifah, Z., Ho, Y.W., Tan, S.G., Abdullah, F & Harikrishna, K. (1998). Random Amplified Polymorphic DNA (RAPD) analysis of *Ganoderma* isolates from oil palm and coconut. 21 st Symposium of the Malaysian Society for Microbiology, 15-16 December, Seri Kembangan, Malaysia.
- 27. A.K.M. Mohiuddin, **K. Harikrishna**, M.K.U. Chowdhury, Zaliha C. Abdullah., and Suhaimi Napis (1999). Influence of acetosyringone on transformation of cucumber mediated by *Agrobacterium tumefaciens*. 3<sup>rd</sup> International Plant Tissue Culture Conference, Dhaka, Bangladesh (March, 1999).
- 28. Latiffah, Z., Ho, Y.W., Tan, S.G., Abdullah, F. and **K. Harikrishna** (1999). Random Amplified Microsatellite (RAMS) of *Ganoderma* from infected oil palm and coconut stumps. 5<sup>th</sup> International Conference on Plant Protection in the Tropics, 15-18 March, Kuala Lumpur.
- 29. Latiffah, Z., Ho, Y.W., Tan, S.G., Abdullah, F. and **Kulaveerasingam H**. (1999). Somatic incompatibility of *Ganoderma* isolates from infected oil palm and coconut stumps. 3<sup>rd</sup> UNESCO National Workshop on Promotion of Microbiology in Malaysia (25 May 1999).
- 30. **Harikrishna Kulaveerasingam**, Zaidah bte Rahmat, Lim Chin Ching and Sharifah Shahrul Rabiah bte Syed Alwee (1999). A morphological and molecular analysis of oil palm floral development. 2<sup>nd</sup> Asia-Pacific International Molecular Biology Network (Asia-Pacific IMBN) Conference. 25-28 July, Singapore.
- 31. **K. Harikrishna**, Zaidah bte Rahmat, Lim Chin Ching and Sharifah Shahrul Rabiah bte Syed Alwee (1999). Oil palm floral development: A molecular and morphological study. Presented orally at 9<sup>th</sup> Scientific Meeting of the Malaysian Society for Molecular Biology and Biotechnology, 2-4<sup>th</sup> September, Pasir Salak, Perak.
- 32. **K. Harikrishna**, Tan, S.H. (1999). The use of floral genes as targets for tree improvement. Presented orally at "Seminar on Genetic and Tree Improvement", FRIM 4-5 October 1999.
- 33. Z. Latifah, Y.W. Ho, S.G. Tan, F. Abdullah and K. Harikrishna (1999). PCR-RFLP analysis of internal transcribed spacer region (ITS) of Ganoderma from oil palm and coconut. MCB-MAPPS Plant Protection Conference, 2-3 Nov, Kota Kinabalu, Sabah.

- 34. Sugumaran Manickam, Ong Wai Kean, Abdullah Sipat, **Harikrishna Kulaveerasingam**, Marziah Mahmood and Umi K. Abu Bakar (1999). The cloning and characterisation of floral pigmentation genes from *Oncidium* sp. Oral presentation at the 11<sup>th</sup> National Biotechnology Seminar, 22-24 Nov, Melaka.
- 35. Choong Chieh Wean, Lee Yoon Soo, Ooi Siew Eng, Siti Habsah Roowi, Siti Suhaila bt Abdul Rahman, Chan Pick Kuen, Rofina Yasmin Othman, **K. Harikrishna** (1999). A molecular analysis of a style specific promoter of tomato. Oral presentation at the 11<sup>th</sup> National Biotechnology Seminar, 22-24 Nov, Melaka.
- 36. **K. Harikrishna** (2000). An introduction to Molecular Biology. Oral presentation at the Annual Scientific sessions of the National Heart Association of Malaysia. 26-27 Feb 2000, Mandarin Oriental Kuala Lumpur.
- 37. Chew FT, Tan SH, **Harikrishna K**, Liew CF, Tan HTW, Lee BW (2000). Initial collection of expressed sequence tags of the oil plam (*Elaeis guineensis* Jacq.) pollen-Identification of pollen allergen homologues. ICACI, Sydney, Australia.
- 38. Chew FT, Lee BW, Ong TC, Wong FL, Lim SH, Tan TK, Tan HTW, Baratawidjaja KG, Baratawidjaja IR, Baratawidjaja PP, Darwis A, Shahnaz M, Gendeh BS, Tan SH, **Harikrishna K**, (2000). Aerobiology of the tropical environment in Southeast Asia and sensitization profile of the regional populations to the aeroallergens. ICACI, Sydney, Australia.
- 39. **K. Harikrishna**, Zaidah Rahmat, Lim Chin Ching, Tan Siang Hee, Sharifah Shahrul Rabiah Syed Alwee (2000). Oil Palm Floral Development. Oral presentation at the Malaysian Society for Molecular Biology and Biotechnology 10th Scientific Meeting. Hyatt Regency, Saujana, Subang.
- 40. S.A. Sharifah, **K. Harikrishna**, R. Zaidah (2000). Isolation and characterization of oil palm Leafy-like cDNA. In Proceedings of the '6<sup>th</sup> International Congress of Plant Molecular Biology', Canada.
- 41. Namasivayam, P., Ong Abdullah, M., **Harikrishna, K** (2000). Isolation and characterization of a zygotic embryo specific oleosin-like cDNA from oil palm (*Elaeis guineensis* Jacq.). In Proceedings of the '6<sup>th</sup> International Congress of Plant Molecular Biology', Canada.
- 42. Iekhsan Othman, **K. Harikrishna** (2000). Molecular biology and biotechnology in the 21st century: The need for a quantum leap. *Symbiosis*, August 2000, ISSN 1511-3426, pp 15-17.
- 43. Norlia, B., Mohd. Rosli Haron, **Harikrishna**, K., Norwati A, Nurshahidah,I and Sh. Shahrul Rabiah Syed Alwee (2000). Construction and Screening of a teak (*Tectona grandis*) genomic library. Pp 280-289. In Proceedings of the 4<sup>th</sup> National Congress on Genetics, 26-28 September, Genting Highlands, Pahang.
- 44. Zaidah, R., Sharifah SA, **Harikrishna K** (2000). Gene expression during oil palm flower development. In Proceedings of the 12<sup>th</sup> National Biotechnology Seminar, pp 479, 12-15<sup>th</sup> Nov, Lumut, Perak.
- 45. Rogayah S, Tan SH, **Harikrishna K**, Suhaimi N (2000). Isolation and partial characterization of a member of chitinase genes from developing winged bean seeds, pp 490, In Proceedings of the 12<sup>th</sup> National Biotechnology Seminar, pp 479, 12-15<sup>th</sup> Nov, Lumut, Perak.
- 46. Mohd Rosli H, Norlia B, **Harikrishna K**, Norwati A (2000). Cloning and partial sequence analysis of PAS family member in Teak (*Tectonia grandis*). Pp493, In Proceedings of the 12<sup>th</sup> National Biotechnology Seminar, pp 479, 12-15<sup>th</sup> Nov, Lumut, Perak.
- 47. Siti Suhaila AR, Chan PK, Choong CW, Yasmin O, **Harikrishna** K (2000). A molecular analysis of a style specific promoter of tomato. Pp 502, In Proceedings of the 12<sup>th</sup> National Biotechnology Seminar, pp 479, 12-15<sup>th</sup> Nov, Lumut, Perak.
- 48. Teo CH, Yasmin O, **Harikrishna K**, Heslop-Harrison JS, Schwarzacher T, Tan SH (2000). The cloning of Ty 1-Copia-Like Retrotransposons from 10 varieties of bananas

- (*Musa* sp). Pp 575, In Proceedings of the 12<sup>th</sup> National Biotechnology Seminar, pp 479, 12-15<sup>th</sup> Nov, Lumut, Perak.
- 49. Ooi, SE, Abdullah, MO, **Harikrishna K** (2000). Isolation of embryogenic genes from oil palm suspension cultures. In Proceedings of "The Asia Pacific Conference on Plant Tissue Culture & Agribiotechnology", 20-24 Nov, NUS, Singapore
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#### Patents:

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