

CURRICULUM VITAE

1. **Name :** DR. LAU HAN YIH



2. **Date of Birth:** 26th Mar 1976

3. **Address:** HQ MARDI, Biotechnology and Nanotechnology Research Centre, Persiaran MARDI-UPM, 43400 Serdang, Selangor

Tel : +603-8953 6098

Fax : +603- 8953 6145

Mobile Phone : +60132886785

Email : hylau@mardi.gov.my

4. **Academic Qualification :**

PhD | 2016 | THE UNIVERSITY OF QUEENSLAND

Field: Molecular diagnostic & DNA biosensor

Thesis Title : Development of Point-of-care and Multiplex Diagnostic Methods for the Detection of Plant Pathogens

MSc | 2004 | UNIVERSITI KEBANGSAAN MALAYSIA

Field: Botany

Thesis Title: Transformation of Ripening Gene CCS from Chilli into Tomato Plants

BSc BIOTECHNOLOGY | 2000 | UNIVERSITI KEBANGSAAN MALAYSIA

Field: Biotechnology Management

Thesis Title: Differential screening of chilli (*Capsicum annum* L.) cDNA library

5. **Brief Career History :**

Senior Research Scientist, MARDI (2004-Current)

Research Officer, Malaysia Palm Oil Board (2nd Jan 2004 – 31st May 2004)

Research Assistant, National University of Malaysia (1st July 2003 – 31st Dec 2003)

6. **Field (s) of Specialization :**

Molecular Biology, Biodiagnosis And Biosensor

7. Current Research Areas/ Topic :

1. Malaysia Toray Science Foundation (MTSF): Impedimetric DNA Biosensor for Early Detection of *Erwinia mallotivora* (Dieback Disease) in Papaya (2017 – 2018)
2. Development project of MARDI: Development of molecular diagnostic technique for rapid detection of BLB, BLS and Blast diseases (2016 – 2020)

8. Achievements/ Awards:

1. Silver Medal at 16th International Invention Innovation Industrial Design & Technology Exhibition 2005 (ITEX 2005): Genetically modified organisms (GMO) detection kit.
2. Bronze Medal, Knowledge Category- Lau Han-Yih, Habibuddin H., and Tan Chon-Seng, Recombinant Antigen for production of Antibody against *Candidatus Liberibacter asiaticus* that caused Citrus Greening Disease, MARDI Science & Technology Exhibition 2008, 11th - 13th Nov 2008, MAEPS, Serdang
3. Bronze Medal, Knowledge Category - Mohd Afendy A.T., Sariah Meon, Wong M.Y., Adlin Azlina A.K., Lau H.Y. and Nurasmaliza M.A. PCR Detection of Pathogenic *Ganoderma* spp. for Diagnosing Basal Stem Rot in Oil Palm. MARDI Science & Technology Exhibition 2008, 11th - 13th Nov 2008, MAEPS, Serdang
4. Silver Medal, Innovation Category - Lau Han-Yih, Norliza Abu Bakar, Tan Chon-Seng. Thermostable enzyme (Pfu DNA polymerase) via recombinant technology. 5th MARDI Science & Technology Exhibition, 15-17 March 2010, MAEPS Serdang
5. Silver Medal, Innovation Category - Norliza Abu Bakar, Lau Han-Yih, Tan Chon-Seng. *Thermus thermophilus* DNA Polymerase via recombinant technology, 5th MARDI Science & Technology Exhibition, 15-17 March 2010, MAEPS Serdang
6. Bronze Medal, Knowledge Category - M. S. Suria, M. Erna Mutiara, A. K. Adlin Azlina, I. Zamri, A. T. Mohd Afendy, Lau Han-Yih, N. S. Mariana and A. R. Raha. Specificity and sensitivity of multiplex PCR assay for detection of *E.coli* O157:H7. 5th MARDI Science & Technology Exhibition, 15-17 March 2010, MAEPS Serdang
7. Silver Medal, 21st International Invention, Innovation & Technology Exhibition ITEX 2010. Norliza Abu Bakar, Lau Han-Yih, Tan Chon-Seng. Rapid production of high quality Tth and Pfu DNA polymerase. 14th – 16th May 2010, KL, Malaysia.
8. Bronze Medal, BioInno Awards 2010. Lau Han-Yih, Norliza Abu Bakar, Tan Chon-Seng. Rapid production of high quality Tth and Pfu DNA polymerase. 1st – 3rd Nov 2010, KL, Malaysia.
9. Gold Medal, Innovation Category – Han Yih Lau, Eugene J.H.Weew, Matt Trau and Jose R. Botella. 2016. A simple and rapid qualitative nucleic acid detection method purpose-built for resource-poor settings. 11th MARDI Science & Technology Exhibition

10. Silver Medal, Han Yih Lau, Eugene J.H.We, Matt Trau and Jose R. Botella. 2016. A field ready, rapid and simple diagnostic method for all pathogens. MAGIS 2016
11. Silver Medal, Han Yih Lau, Eugene J.H.We, Matt Trau and Jose R. Botella. 2017. A field ready, rapid and simple diagnostic method for all pathogens. Malaysia Technology Expo 2017

9. Number of Publications:

35

10. List Significant Journal Publications (Latest Publication for the past five years)

1. Alizar U., Lee Y.H., Musa A., Han-Yih Lau, Zamri.I. Tan L.L. 2014. A regenerable screen-printed DNA biosensor based on acrylic microsphere-gold nanoparticle composite for genetically modified soybean determination. *Sensors and Actuators B: Chemical*. 190: 694-701
2. Alizar U., Lee Y.H., Han-Yih Lau, Zamri.I. Tan L.L. 2014. Single-step and reagentless analysis of genetically modified soybean DNA with an electrochemical DNA Biosensor. *Anal. Methods*. 6:6369
3. Han Yih Lau, Ramkumar P., Matt T., Jose R.B. 2014. Molecular Inversion probe: A new tool for highly specific detection of plant pathogens. *PLOS One*. 9(10): e111182. Doi:10.1371/journal.pone.0111182
4. Han Yih Lau, E.J.H.We, J.R.Botella and M.Trau. 2015. Re-purposing bridging flocculation for on-site, rapid, qualitative DNA detection in resource-poor settings. *Chem.Commun.*, 51:5828
5. Han Yih Lau, Yuling Wang, E.J.H.We, J.R.Botella and M.Trau. 2016. Field Demonstration of a Multiplexed Point-of-care Diagnostic Platform for Plant Pathogens. *Anal. Chem.*, DOI: 10.1021/acs.analchem.6b01551
6. Han Yih Lau, Haoqi Wu, Eugene J. H. Wee, Matt Trau, Yuling Wang & Jose R. Botella. 2017. Specific and Sensitive Isothermal Electrochemical Biosensor for Plant Pathogen DNA Detection with Colloidal Gold Nanoparticles as Probes. *Scientific Reports*, 7:38896, DOI: 10.1038/srep38896
7. Han Yih Lau, Jose R.Botella. 2017. Advanced DNA-Based Point-of-Care Diagnostic Methods for Plant Diseases Detection. *Frontiers in Plant Science*, 8:2016. doi: 10.3389/fpls.2017.02016