CURRICULUM VITAE

A. BUTIR-BUTIR PERIBADI ***(Personal Details)***			
Nama Penuh *(Full Name)*	PHANG LAI YEE		Gelaran *(Title):* Prof. Madya Ts. Dr.
No. MyKad / No. Pasport *(Mykad No. / Passport No.)*	Warganegara *(Citizenship)* Malaysia	Bangsa *(Race)* Cina	Jantina *(Gender)* Perempuan
Jawatan *(Designation)*	Prof. Madya	Tarikh Lahir *(Date of Birth)*	

Alamat Semasa *(Current Address)*	Jabatan/Fakulti *(Department/Faculty)*	E-mel dan URL *(E-mail Address and URL)*
Jabatan Teknologi Bioproses Fakulti Bioteknologi and Sains Biomolekul Universiti Putra Malaysia Tel:03-979697514	Jabatan Teknologi Bioproses Fakulti Bioteknologi and Sains Biomolekul Universiti Putra Malaysia Tel: 03-97697514 Fax:	E-mail:phanglaiyee@upm.edu.my URL: H/P:

B. KELAYAKAN AKADEMIK ***(Academic Qualification)***			
Nama Sijil / Kelayakan *(Certificate / Qualification obtained)*	Nama Sekolah Institusi *(Name of School / Institution)*	Tahun *(Year obtained)*	Bidang pengkhususan *(Area of Specialization)*
Bachelor of Science (Biotechnology)	Universiti Putra Malaysia	1998	Biotechnology
Master Science	Universiti Putra Malaysia	2001	Environmental Biotechnology
PhD	Kyushu Institute of Technology, Japan	2004	Environmental Biotechnology

C. KEMAHIRAN BAHASA *(Language Proficiency)*					
Bahasa / *Language*	Lemah *Poor (1)*	Sederhana *Moderate (2)*	Baik *Good (3)*	Amat Baik *Very good (4)*	Cemerlang *Excellent (5)*
English				√	
Bahasa Melayu				√	
Chinese				√	
Lain-lain *(other):*					

G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) *(List of publications – author (s), title, journal, volume, page and year published)*	
Journal	**1.** Chiu-Shyan Soo, Wai-Sum Yap, Wei-Min Hon, **Lai-Yee Phang**. 2015. Mini Review: Hydrogen and ethanol co-production from waste materials via microbial fermentation. *World Journal of Microbiology and Biotechnology*, 31, 1475-1488. 2. Mohamad Faizal Ibrahim, Siren Linggang, Mohd Azwan Jenol, **Phang Lai Yee**, Suraini Abd-Aziz. 2015. Effect of buffering system on acetone-butanol-ethanol fermentation by *Clostridium acetobutylicum* ATCC 824 using pretreated oil palm empty fruit bunch. *Bioresources*. 10, 3890-3907. **3.** Ruqayyah Masran, Zuraidah Zanirun, Ezyana Kamal Bahrin, Mohamad Faizal Ibrahim, **Phang Lai Yee**, Suraini Abd-Aziz. 2016. Harnessing the potential of ligninolytic enzymes for lignocellulosic biomass pretreatment. *Applied Microbiology and Biotechnology*, 100, 5231-5246. **4.** Ibrahim Yusuf, Siti Aqlima Ahmad, **Lai Yee Phang**, Mohd Arif Syed, Nor Aripin Shamaan, Khalilah Abdul Khalil, Farrah Aini Dahalan and Mohd Yunus Shukor. 2016. Keratinase production and biodegradation of polluted secondary chicken feather wastes by a newly isolated multi heavy metal tolerant bacterium-Alcaligenes sp. AQ05-001. *Journal of Environmental Management*, 183, 182-195. **5.** Sheril Norliana Suhaimi, Nur Amelia Azreen Adnan, **Phang Lai Yee**, Surani Abd-Aziz and Toshinari Maeda. 2016. Rapid screening method for isolation of glycerol-consuming bacteria for ethanol production. *Sains Malaysiana*, 45, 5, 811-815. **6.** Yen Sze Lee, **Lai Yee Phang**, Siti Aqlima Ahmad and Peck Toung Ooi. 2016. Microwave-alkali treatment of chicken feathers for protein hydrolysate production. *Waste and Biomass Volarization*, 7, 1147- 1157. **7.** Chiu-Shyan Soo, Wai-Sum Yap, Wei-Min Hon, Norhayati Ramli, Umi Kalsom Md Shah and **Lai-Yee Phang**. 2017. Improvement of hydrogen yield by ethanol producing *Escherichia coli* recombinants in acidic condition. *Electronic Journal of Biotechnology*, 26, 27-32. **8.** Chiu-Shyan Soo, Wai-Sum Yap, Wei-Min Hon, Norhayati Ramli, Umi Kalsom Md Shah and **Lai-Yee Phang**. 2017. Co-production of hydrogen and ethanol of *Escherichia coli* isolate. *Chiang Mai Journal of Science*, 44, 3, 768-773. **9.** Nurliyana Muhamad, **Lai Yee Phang** and Suraini Abd-Aziz. 2017. Optimization of metallo-keratinase production by *Pseudomonas* sp. LM19 as a potential enzyme for feather waste conversion. *Biocatalysis and Biotransformation*, 35, 1, 41-50. **10.** Chooi Wei Cheong, Siti Aqlima Ahmad, Peck Toung Ooi and **Lai Yee Phang**. 2017. Treatments of chicken feather waste. *Pertanika Journal of Scholarly Research Reviews,*3(1), 32-41. **11.** Chiu-Shyan Soo, Wai-Sum Yap, Wei-Min Hon, Norhayati Ramli, Umi Kalsom Md Shah and **Lai-Yee Phang**. 2017. Co-production of hydrogen and ethanol by *Escherichia coli* SS1 and its recombinant. *Electronic Journal of Biotechnology*, 30, 64-70. **12.** Abdul Hamid Nurfarahin, Mohd Shamzi Muhamed and **Lai Yee Phang**. 2018. Culture medium development for microbial-derived surfactants production-An overview. *Molecules*, 23, 1049, 1-26. doi:10.3390/molecules23051049 **13.** Chooi Wei Cheong, Yen Sze Lee, Siti Aqlima Ahmad, Peck Toung Ooi and **Lai Yee Phang.** 2018. Chicken feather valorization by thermal alkaline pretreatment followed by enzymatic hydrolysis for protein-rich hydrolysate production. *Waste Management*, 79, 658-666. **14.** Ibrahim Yusuf, Siti Aqlima Ahmad, **Lai Yee Phang**, Nur Adela Yasid and Mohd Yunus Shukor. 2019. Effective production of keratinase by gellan gum-immobilised Alcaligenes sp. AQ05-001 using heavy-metal free and polluted feather wastes as substrates. 3 Biotech, 9 (32), 1-12. **15.** Abdul Hamid Nurfarahin, Mohd Shamzi Muhamed and **Lai Yee Phang**. 2019. Development of palm fatty acid distillate-containing medium for biosurfactant production by *Pseudomonas* sp. LM19. *Molecules*, 24(14), 2613. doi:10.3390/molecules24142613 **16.** Lim Mingyuan, Abd Wahid Samsuri, Mohd Yunus Shukor and **Lai Yee**

	Phang. 2020. Growth performance of *Jatropha curcas* cultivated on local abandoned bauxite mine soil. *Sustainability*, 12 (19), 1-14. doi: 10.3390/su12198263 **17.** Phooi Tee Voon, Xiou Shuang Yong, **Lai Yee Phang**, Tong Kok Wai Ng and Verna Kar Mun Lee. 2021. Different ratios of corn and coconut oil blends in high-fat diets influence fat deposition without altering metabolic biomarkers in male rats. *European Journal of Lipid Science and Technology*, 123, 1-7. doi: 10.1002/ejlt.202000204 **18.** Nurul Haziqah Alias, Suraini Abd-Aziz, **Lai Yee Phang** and Mohamad Faizal Ibrahim. 2021. Enzymatic saccharification with sequential-substrate feeding and sequential-enzymes loading to enhance fermentable sugar production from sago hampas. *Processes*,9, 535. doi:10.3390/pr9030535 **19.** Chu Pei Hsia, Mohd Azwan Jenol, **Phang Lai Yee**, Mohamad Faizal Ibrahim, Sehanat Prasongsuk, Wichanee Bankeeree, Hunsa Punnapayak, Pongtharin Lotrakul and Suraini Abd-Aziz. 2021. Starch extracted from pineapple (*Ananas comosus*) plant stem as a source for amino acids production. *Chemical and Biological Technologies in Agriculture*, 8, 1–15. 20. Radin Shafierul Radin Yahaya, Normi M. Yahaya, **Lai Yee Phang**, Siti Aqlima Ahmad, Janna Ong Abdullah and Suriana Sabri. 2021. Molecular strategies to increase keratinase production in heterologous expression systems for industrial applications. *Applied Microbiology and Biotechnology*, 105, 3955–3969. 21. Cui Wen Thio, Wen Huei Lim, Umi Kalsom Md. Shah and **Lai-Yee Phang**. 2022. Palm kernel fatty acid distillate as substrate for rhamnolipids production using *Pseudomonas* sp. LM19. *Green Chemistry Letters and Reviews*, 15, 81–90. 22. **Lai-Yee Phang**, Mitra Mohammadi and Lim Mingyuan. 2023. Underutilised plants as potential phytoremediators for inorganic pollutants decontamination. *Water Air Soil Pollution*, 234 (306), 1-18. doi:10.1007/s11270-023-06322-8 23. Ramle Illy Kamaliah, Mohd Azwan Jenol, Mohamad Faizal Ibrahim, **Lai-Yee Phang**, Suraini Abd-Aziz. 2024. Enzymatic conversion of pineapple plant stem starch and lignocellulosic materials into sugar syrups. *Biocatalysis and Agricultural Biotechnology*, 103092. 24. Pei-Hsia Chu, Mohd Azwan Jenol, **Lai-Yee Phang**, Mohamad Faizal Ibrahim, Purkan Purkan, Sofijan Hadi, Suraini Abd-Aziz. 2024. Innovative approaches for amino acid production via consolidated bioprocessing of agricultural biomass. *Environmental Science and Pollution Research*, 1-22. https://doi.org/10.1007/s11356-024-33534-0 25. M.A. Jenol, P.H. Chu, L.K. Ramle, L.J.W. Joyce, **P. Lai-Yee**, M.F. Ibrahim, N.B. Alitheen, M.A. Osman, S.Abd Gani, S. Abd-Aziz. 2024. Feasibility of agricultural biomass in Southeast Asia for enzyme production. *Renewable and Sustainable Energy Reviews*, 200, 114601. 26. Pei-Hsia Chu, Mohd Azwan Jenol, **Lai-Yee Phang**, Mohamad Faizal Ibrahim, Purkan Purkan, Sofijan Hadi, Suraini Abd-Aziz. 2024. Amino acids production using pineapple plant stem by optimized one-step fermentation. *Chemical and Biological Technologies in Agriculture*, 11, 70. 27. **Lai-Yee Phang**, Lim Mingyuan, Mitra Mohammadi, Chong-Siang Tee, Mohd Hafis Yuswan, Wan-Hee Cheng and Kok-Song Lai. 2024. Phytoremediation as a viable ecological and socioeconomic management strategy. *Environmental Science and Pollution Research*, 1-16. https://doi.org/10.1007/s11356-024-34585-z 28. Mingyuan Lim, Abd. Wahid Samsuri, Mohd Yunus Abd Shukor, **Lai-Yee Phang**. 2024. Enhancing phytoremediation of bauxite mine subsoil by Jatropha curcas L. using sewage sludge and poultry sludge. *Discover Civil Engineering*, 1, 101. https://doi.org/10.1007/s44290-024-00103-w
Chapter in book	**1.** **Lai-Yee Phang**, M. A. Jenol, P. H. Chu and S. Abd-Aziz. 2022. *Wastes from Pineapple Factory/Processing Industries*. Mohamed Thariq Hameed Sultan, S. Abd-Aziz, S. C. Napathorn, M. F. Ibrahim, L. Y. Phang M. A. Jenol, A. U.

	Md Shah, M. R. Ali and M. I. Najeeb (Eds.), Pineapple and Its Wastes Utilisation: Towards Circular Bioeconomy and Sustainability. Universiti Putra Malaysia Press. ***2.*** Zaharah Ibrahim, Siti Halimah Hasmoni, Shafinaz Shahir, **Phang Lai Yee**, Nurashikin Ihsan and Madihah Md Salleh. 2022. *Biosurfactant from Oil Producing Plant*. In S. Abd-Aziz, M. Gozan, M. F. Ibrahim & L. Y. Phang (Eds.), Biorefinery of Oil Producing Plants for Value-Added Products. Wiley-VCH. **3.** Misri Gozan and **Lai-Yee Phang**. 2022. *Technical and Economical Aspects of Oil Producing Plants*. In S. Abd-Aziz, M. Gozan, M. F. Ibrahim & L. Y. Phang (Eds.), Biorefinery of Oil Producing Plants for Value-Added Products. Wiley-VCH. **4.** **Lai-Yee Phang,** Mitra Mohammadi, Mohd Azwan and Misri Gozan. 2022. *Bioplastic Production from Oil Producing Plants*. In S. Abd-Aziz, M. Gozan, M. F. Ibrahim & L. Y. Phang (Eds.), Biorefinery of Oil Producing Plants for Value-Added Products. Wiley-VCH. ***5.*** Lim Wen Huei, Yong Xiou Shuang, **Lai-Yee Phang** and Noorjahan Banu Alitheen. 2022. *Palm Catanionic Surfactant for Drug Delivery Application*. In S. Abd-Aziz, M. Gozan, M. F. Ibrahim & L. Y. Phang (Eds.), Biorefinery of Oil Producing Plants for Value-Added Products. Wiley-VCH. **6.** Mohamad Faizal Ibrahim, Nur Nabila Talib, Nur Haziqah Alias, Izza Nadira Abu Bakar, Suraini Abd Aziz and **Phang Lai Yee**. 2022. *Utilization of Agricultural Biomass for Biobutanol Production*. In S. Yusup & N. A. Rashidi (Eds.), Value-chain of Biofuels: Fundamentals, Technology and Standardization (pp. 235-245). Amsterdam, Netherland: Elsevier Inc. **7.** Kai L. Sim, Radin S.R. Yahaya, Suriana Sabri and **Lai-Yee Phang**. 2023. *Chicken Feather as a Bioresource to Produce Value-added Bioproducts*. In S. Abd-Aziz, M. Gozan, M. F. Ibrahim & L. Y. Phang (Eds.), Chemical Substitutes from Agricultural and Industrial By-Products: Bioconversion, Bioprocessing, and Biorefining. Wiley-VCH.

D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN
(Scientific experience and Specialisation)

Organization	*Position*	*Start Date*	*End Date*	*Expertise*
Asian Federation of Biotechnology Malaysia Chapter	Treasurer	2019	present	
Malaysia Board of Technologists	Teknologis Berijazah	2018	present	

E. PEKERJAAN ***(Employment)***

Majikan / *Employer*	Jawatan / *Designation*	Jabatan / *Department*	Tarikh lantikan / *Start Date*	Tarikh tamat / *Date Ended*
University College Sedaya International (UCSI)	Lecturer	Biotechnology Department	Sep 2005	Dec 2007

F. ANUGERAH DAN HADIAH *(Honours and Awards)*				
Name of awards	*Title*	*Award Authority*	*Award Type*	*Year*
Pertandingan Amalan Terbaik Inovasi Pengajaran dan Pembelajaran antara Fakulti/Sekolah/Institut/Pusat Pembelajaran bersempena Program Bulan Pendidik Universiti Putra Malaysia 2024	Tempat Pertama	UPM	Universiti	2024

H. PROJEK PENYELIDIKAN TERDAHULU *(Past Research Project)*					
Project No.	*Project Title*	*Role*	*Year*	*Source of fund*	*Status*
GP-IPS/2016/9491100	Chicken feather hydrolysis by autoclave-alkaline pretreatment incorporated with enzymatic treatment for protein hydrolysate production	Project leader	2016	Geran Putra-Inisiatif Putra Siswazah (RM20,000)	Completed in Feb 2018
01-01-16-1766FR	Characterization and functional properties of biosurfactants produced by indigenous microorganism using palm-oil based oleochemical products	Project leader	2016	FRGS (RM67,400)	Completed in August 2018
GP-IPS/2017/9520300	Phytoremediation of bauxite waste contaminated soil using *Jatropha curcas*	Project leader	2017	Geran Putra-Inisiatif Putra Siswazah (RM20,000)	Completed in 2020
GP-IPS/2018/9601500	Production of keratinase cocktail for chicken feather hydrolysis	Project leader	2018	Geran Putra-Inisiatif Putra Siswazah (RM25,000)	Completed in 2021
IPK.Sel.SPBT.700-6/11(7)	Bulu Ayam Sebagai Sumber Bioaditif Bagi Penghasilan Detergen Melalui Proses Penapaian	Ketua Projek	2021/2022	Geran Kecil Alam Sekitar dan Teknologi Hijau Negeri Selangor (RM5000)	Completed 2022
GP-IPS/2025/9815600	Improvement of the degradation of microplastics by locally isolated bacterial strains	Project Leader	2025	Geran Putra-Inisiatif Putra Siswazah (RM25,000)	On-going
Geran Sumbangan Suruhanjaya Kebangsaan UNESCO Malaysia (SKUM) (GSS) 2025	Pengurusan sisa Lestari melalui bioekonomi larva Black Soldier Fly untuk keterjaminan makanan	Project Leader	2025	Suruhanjaya Kebangsaan UNESCO Malaysia, Kementerian Pendidikan Malaysia (RM11,290.24)	On-going