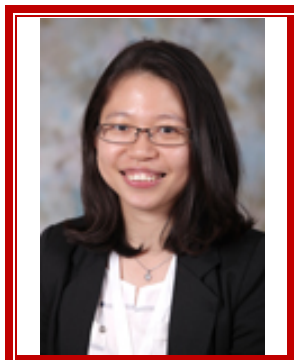


CURRICULUM VITAE



Vivien How
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Education

1. PhD (Environmental Health) (2014) Universiti Putra Malaysia
2. BSc. (Environmental and Occupational Health) (2010) Universiti Putra Malaysia
- 3.

Areas of Interest

1. Chemical Health Risk
2. Agricultural Health and Safety
3. Disaster Risk Reduction and Education
4. Climate Change and Environmental and Occupational Health
5. Occupational Safety and Health

Professional Qualification/ Membership/ Affiliation

1. Certified Chemical Health Risk Assessor (OYK – Pengapit) – Department of Occupational Safety and Health, Ministry of Human Resources, Malaysia
2. Registered Environmental Health Officer – Ministry of Health, Malaysia
3. Trainer (Jurulatih Bertauliah) – Malaysia Red Crescent Society (Bulan Sabit Merah Malaysia)
4. Train the Trainer (HRD) – Ministry of Human Resources Malaysia
5. Young Scientist Network (YSN) – Academy Science Malaysia
6. Young Scientist – Integrated Research on Disaster Risk (IRDR) (International Scientific Research Group International Science Council (ISC) and the United Nations Office for Disaster Risk Reduction (UNDRR)

Appointments (Inside and Outside UPM)

Date	Designation	Remarks
Dec 2021 – now	Chemical Health Risk Assessor Competency Working Committee	National Institute of Occupational Safety and Health (NIOSH) Malaysia
Sep 2022 – now	Young Southeast Asian Leaders Initiative (YSEALI) Professional Fellow (Sustainable Development & Environment)	Sponsored by The Department of States – the United States
July 2023 – now	National Planetary Health Action Plan (NPHAP) Working Committee	Academy Sciences Malaysia (ASM)
Dec 2023 – now	President	Persatuan Initiative Sihat-Selamat (SAFVE Initiative)

Publications

Journals (in 5 years)

1. Siti Nurfahirah Muhamad, **Vivien How**, Fang Lee Lim, et al. (2024) Assessment of Heat Stress Contributing Factors in the Indoor Environment among Vulnerable Populations in Klang Valley using Principle Component Analysis (PCA), *Scientific Reports*, 14:16265. <https://doi.org/10.1038/s41598-024-67110-w>
2. Siti Nurfahirah Muhamad, **Vivien How**, Fang Lee Lim, et al. (2024) Association between physiological responses and heat shock protein 70 (HSP70) expressions in the vulnerable populations of Kuala Lumpur, *International Journal of Environmental Health Research*, doi: 10.1080/09603123.2024.2340125
3. Jiun-Horng Tsai, Tzu-Lin Hung, **Vivien How**, Hung-Lung Chiang (2023) Effect of the Method Detection Limit on the Health Risk Assessment of Ambient Hazardous Air Pollutants in an Urban Industrial Complex Area, *Atmosphere*, 14 (1426), <https://doi.org/10.3390/atmos14091426>
4. Jiun-Horng Tsai, **Vivien How**, Wei-Chi Wang, Hung-Lung Chiang (2023) Characteristics of Airborn Pollutants in the Area of an Agricultural–Industrial Complex near a Petrochemical Industry Facility, *Atmosphere*, 14 (803), <https://doi.org/10.3390/atmos14050803>
5. Tengku Nilam Baizura, Nur Azzalina Suzianti Feisal, Noor Haziqah Kamaludin, **Vivien How**, et al. (2023) Biological active metabolites from microalgae for healthcare and pharmaceutical industries: A comprehensive review. *Bioresource Technology*, <https://doi.org/10.1016/j.biortech.2023.128661>
6. **Vivien How**, Shyamli Singh, Thinh Dang, Lim Fang Lee & How-Ran Guo (2022) The effects of heat exposure on tropical farm workers in Malaysia: six-month physiological health monitoring, *International Journal of Environmental Health Research*, DOI: 10.1080/09603123.2022.2033706
7. Jiun-Horng Tsai, Kuo-Hsiung Lin, **Vivien How**, Yu-An Deng, Hung-Lung Chiang (2021) Waste to Energy: Air Pollutant Emissions from the Steam Boilers Using Recycled Waste Wood. *Aerosol and Air Quality Research*, 21(12): 210301. <https://doi.org/10.4209/aaqr.210301>
8. **Vivien How**, Ernney Shuheida Binti Khamarudin, Nurul Nadiyah Binti Mohkhtar (2021) The Effect of Age and Body Mass Index on Dietary Health RiskAssessment of Heavy Metals From Channa Striatus Fish Intakes From Paddy Field. *Malaysian Journal of Medicine and Health Sciences*, 116-122
9. **Vivien How**, Shyamli Singh, Thinh Dang, Lim Fang Lee & How-Ran Guo (2021) Factors Associated with Health-Risk Perception of Heat Waves among Agroecological and Conventional Farmers in the TropicsThe *International Journal of Climate Change: Impacts and Responses*, 14(1). <https://doi.org/10.18848/1835-7156/CGP/v14i01/45-60>
10. Ezza Sabrina Azmi, **Vivien How**, Haliza Abdul Rahman (2021) Effect of Health Belief Model on Flood-Risk Educational Approach among Elementary School Children in Malaysia, *Jamba – Journal of Disaster Risk Studies*, 13(1), a1102. <https://doi.org/10.4102/jamba.v13i1.1102>
11. Ezza Sabrina Azmi, **Vivien How**, Haliza Abdul Rahman (2021) A Two-Way Interactive Teaching-Learning Process to Implement Flood Disaster Education in an Early Age: The Role of Learning Materials, *Malaysian Journal of Medicine and Health Sciences*, 16(SP11), 166-174.
12. **Vivien How**, Shyamli Singh, Thinh Dang, Lim Fang Lee & How-Ran Guo (2020) Association of Blood Cholinesterase with Sexual Differences in Metabolic Health Risks among Villagers from Pesticide-Treated Farming Villages, *Journal of Ecophysiology and Occupational Health*, 20 (1&2), DOI: 10.18311/jeoh/2020/24418.
13. **Vivien How**, Ezza Sabrina Azmi, Haliza Abdul Rahman (2020) The Way Forward: Opportunities and Challenges of Sustainable School Disaster Education in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 10(15), 315–324
14. **Vivien How**, Nur Afiqa Maryam Baharudin, et al (2020) The Different Effects of Climate Extremes on Physiological Health among Agroecology and Conventional Smallholder Rice Farmers. *Environmental Justice*, 13(2), DOI: 10.1089/env.2020.0001
15. Raihanah Chokeli, Nur Azira Baharuddin, **Vivien How**, Nurul Syazani Yuswir, et al (2019) The Chromosomal DNA Damage in Buccal Mucosa Cells among Schools Children in The Vicinity Of Mobile Base Stations in Selangor, *Malaysian Journal of Medicine and Health Sciences*, 15 (SP4), 124-129.

Conference Proceedings (in 5 years)

1. Siti Nurfahirah Muhamad, Vivien How, Abdah Md Akim, Fang Lee Lim and Nur Shabrina Azreen Mohd Shabri (2024) Exploring variations in heat shock protein 70 expression among vulnerable populations across urban and rural areas in Klang Valley. The 7th Environmental Technology and Management Conference (ETMC 2023) DOI: <https://doi.org/10.1051/e3sconf/202448507008>

Books (If any)

How, V. (2016) A Manual Guide to Building a Resilience Community: Community-based Participatory Approach (ISBN 978-983-2408-35-2)

Chapter in Books (If any)

Shamsul Bahri, M.T., Ng, YG., **How, V.**, Malaysia National Occupational Safety and Health Profile, 2016 – 2017, Department of Occupational Safety and Health, Malaysia (2017)

Zailina, H & **How, V.** (2015) Occupational Health Hazards of Rice Cultivation among Paddy Farmers. In: Shamsul, B.M.T., Manohar, A., Karmegam, K., Baba, D., (Eds) Occupational Safety and Health in Commodity Agriculture: Case Studies from Malaysian Agricultural Perspective. (ISBN 978-967-13107-0-0).

How, V., Azmi, E.S (2019) Integrating Flood Education Miniature and Interactive E-Learning in a Prototype of Flood Learning Kit for Knowledge Resilience among School Children. In: Indrajit, P., Jason, V.M., Sangam, S., Iftekhar, A., Thayaparan, G. (Eds) An Interdisciplinary Approach for Disaster Resilience and Sustainability.

Nazatul Syadia, Z, **How, V.**, Amir Hamzah S (2023) Impacts of the chemical and pharmaceutical industries on the environment and working conditions in Malaysia: Capacity-building of workers' organizations for a Just Transition. International Labour Organization (ILO) [Policy Brief] https://ilo.org/asia/publications/issue-briefs/WCMS_890877/lang-en/index.htm

Research Grants				
No.	Project Title	Amount (RM)	Year	Source of Fund
1.	National Occupational Safety and Health (OSH) Profile, Malaysia [Role: Sub-Project Leader]	RM 828,000 (Completed)	2016	Department of Occupational Safety & Health (DOSH), Malaysia
2.	University One Health Teaching Grant	RM1,470 (Completed)	2017	Malaysia One Health University Network (MyOHUN)
3.	Knowledge Transfer Intervention on Flood Risk Reduction By Using Flood Learning Educational Kit among School Children, Klang Valley	RM 15,000 (Completed)	2017	UPM – Research Management Center (RMC)
4.	Spatial distribution of oxidative stress-induced DNA damage by the radiofrequency/microwave radiation among children living in the vicinity of mobile phone base stations, Klang Valley, Malaysia	RM 60,000 (Completed)	2019	UPM – Research Management Center (RMC)
5.	Health and Environmental Vulnerability of Smallholder Farmers to Extreme Climate: A Comparison Study on Agroecology and Conventional Farm	RM 60,000 (Completed)	2019	International Science Council (ISC)

6.	Profiling Genome-wide of Heat Shock Protein Family and develop an integrated Heat Health Risk Framework of Vulnerable Population at Urban & Rural Areas	RM 98,900 (Completed)	2020	Fundamental Research Grant Scheme (FRGS)
7.	Pesticide Health Risk Assessment among Vegetable Farmers in Malaysia	RM115,000 (On-going)	2022	Corporate Private Grant
8.	Making Just Transition Work through stronger Workers' Organizations in chemical and pharmaceutical industries project in Malaysia	RM 37,584.69 (Completed)	2022	International Labour Organization (ILO)
9.	Developing a Community Health Hub at Omdal Island, Sabah	74,400.00 (On-going)	2023	Hasanah Community Grant

Awards/ Recognition (Current)

No.	Name of awards	Award Authority	Award Type	Year
1.	Winner of Best Article	Malaysia Industrial Hygiene Association (MIHA)	Individual	2016
2.	Best Oral Presentation Award for Young Scientist	International Conference on Silk-Road Disaster Risk Reduction and Sustainable Development	Individual	2019
3.	Innovation Showcase @ Putra Future Classroom 2019	Centre for Academic Development (CADE), UPM	Gold Medal	2019
4.	International Putra InnoCreative Poster Competition 2020	Centre for Academic Development (CADE), UPM	Gold Medal	2020
5.	International Putra InnoCreative Poster Competition 2021	Centre for Academic Development (CADE), UPM	Gold Medal	2021
6.	Teaching Excellent Award (TEA)	Faculty of Medicine and Health Sciences, UPM	Individual	2020
7.	Humanitarian Award	Malaysia Red Crescent Society (MRCS)	Individual	2021
8.	Vice Chancellor (Teaching) (Health Science Category)	Universiti Putra Malaysia (UPM)	Individual	2022

Professional Services/ Consultation

No.	Year	Title	Authority
1.	2016 - 2017	National Occupational Safety and Health (OSH) Profile, Malaysia	Department of Occupational Safety & Health (DOSH), Malaysia
2.	2015 - now	Chemical Health Risk Assessment (CHRA)	National Institute of Occupational Safety and Health (NIOSH), Malaysia

3.	2022	Making Just Transition Work through stronger Workers' Organizations in chemical and pharmaceutical industries project in Malaysia	International Labour Organization (ILO)
4.	2022 - now	External Examiner/Academic Assessor	Faculty of Health and Science, SMART College, Kuala Lumpur
5.	2020 - now	Occupational Safety and Health (OSH) Consultation Advisor	Alphat Training and Resources (OSH Consultation Services)

Student Supervision			
PhD (Main Supervisor)			
No.	Name	Title	Status
1.	NURUL SYAZANI BINTI YUSWIR	Radiofrequency Radiation and Its Spatial Distribution of Oxidative Stress-Induced DNA Damage Among Children Study In The Vicinity Of Mobile Phone Base Stations, Selangor, Malaysia	Completed
2.	Raihanah Binti Chokeli	Contributing Factors of Micronuclei Frequency by Radiofrequency Radiation among Primary School Students in the Vicinity of Mobile Phone Base Station, Petaling	Completed
3.	SITI NURFAHIRAH BINTI MUHAMAD	Expression of Heat Shock Protein 70 (Hsp70) Into An Integrated Heat Health Risk Framework For Vulnerable Populations In Urban and Rural Klang Valley	Completed
4.	Ezza Sabrina Azmi	Filling the Gap of Disaster Response Communication with Flood – Situational Assessment Tools	On-going

Master with Thesis (Main Supervisor)			
No.	Name	Title	Status
1.	Nur Shabrina Azreen binti Mohd Shabri	Health Risk Assessment among Vulnerable Community In Urban and Rural Areas Of Klang Valley Based On Heat Stress Social Vulnerability-Human Exposure Framework	On-going
2	Ezza Sabrina Azmi	Knowledge Transfer Intervention On Flood Risk Reduction By Using Flood Learning Educational Kit Among School Children, Klang Valley	Completed

Master without Thesis (Main Supervisor)			
No.	Name	Title	Status
1.	Vasuki Sengalarian	A Comparison of Environmental Hazard and Health Hazard Between Transitional and Green Chemistry Intervened Electrochemistry Practical In Teaching Laboratories Using Green Chemistry Metrics	On-going
2.	Muhammad Amir Bin Asri	Assessing Inter-Rater Reliability in the Implementation of Communicable Disease Control Measures Assessment in Urban Preschool Settings	On-going

Attended Seminars/ Workshops/ Forums both National and International			
No.	Year	Title	Organizers
1.	2017	(Oral Speaker) Integrating Flood Education Miniature and Interactive E-learning in a Prototype of Flood Learning Kit for Knowledge Resilience	International Expert Forum Mainstreaming Resilience and Disaster Risk Reduction in Education
2.	2017	(Plenary Speaker) Building A Safer And Healthier Nation: Are We There Yet?	Projek Mass Rapid Transit Lembah Klang: Laluan Sungai Buloh-Kajang – Persidangan Bersempena Hari Sedunia bagi Keselamatan dan Kesihatan Pekerjaan
3.	2017	(Invited Speaker) The Movement: Ecosystem and Health	One Health Ambassadors Seminar, Malaysia One Health University Network (MyOHUN)
4.	2017	(Plenary Speaker) Pesticide and its effect to Human and Environment	Malaysia Organic Conference
5.	2017	(Plenary Speaker) Environmental Health Awareness and Culture-based Education	International Conference on Cultural Education in Context of ASEAN Integration
6.	2018	(Plenary Speaker) Pesticide and its Effect on Human Health	Cameron Highland Rejuvenate Program
7.	2018	(Plenary Speaker) Community-based approach: Health monitoring for women and children	Pesticide Action Network Asia Pacific (PANAP) Annual Seminar
8.	2019	(Invited Speaker) Role of Health Sciences in Disaster Risk Management	International Workshop for Youth and Young Professionals in Disaster Risk Reduction Research: Mobilizing Youth Through International Collaboration
9.	2019	(Invited Speaker) Conventional vs. Organic vs. Agroecology Farmers: Who are you and where are you leading in Food Security Phenomena	The Seminar on Challenges and Opportunities of Sustainable Farming in Malaysia, Langit Collective
10.	2019	(Invited Speaker) Pesticide, Health and Climate Change	Local Farmers, Local Food (LFLF) Seminar
11.	2019	(Invited Speaker) The Way Forward: From Agricultural Health to Children's Health	Farmer's Justice Seminar, North-South Initiative
12.	2020	(Invited Speaker) Youth and Young Professionals COVID-19 engagement	UNESCO-UINSPIRE Alliance Webinar
13.	2021	(Invited Speaker) From Agricultural Health to Planetary Health: Opportunities to transform agriculture to accelerate resilient recovery in developing countries	Human Security Institute (HSI)
14.	2021	(Invited Speaker) Heat Stroke and Slow-onset Climate Event's Awareness Programme	Gakushuin University Japan, and Universiti Teknologi Malaysia.
15.	2021	(Plenary Speaker) Discussion Topic "Life on Land" for the Ship for Southeast Asian and Japanese Youth Program (SSEAYP)	Center for International Youth Exchange Commissions for SSEAYP Youth Conference 2021
16.	2021	(Panel Speaker) Futures Literacy Laboratory (FLL) in Disaster Risk Reduction (DRR)	UNESCO Office (Jakarta), UNDRR, UNDP & U-Inspire Alliance
17.	2022	(Invited Speaker) Peraturan Khusus Sektor Mengenai Penggunaan Bahan Kimia dan Keperluan Keselamatan Pekerjaan (OSH) yang Selamat di Malaysia	Malaysian Trades Union Congress (MTUC)

18.	2022	(Invited Speaker) Sekolah SDG Siri 3 – Memperkasa Matlamat Pembangunan Lestari Menjelang 2030 – SDG: Kitaran Hidup	National Youth Council Malaysia
19.	2022	(Invited Speaker) Virtual Conference: Community Participation in Flood Risk Management	National Youth Council Malaysia
20.	2022	(Keynote Speaker) Prioritize Farmer's Health for Sustainable Agricultural Journey	Third Malaysian Organic Conference
21.	2022	(Invited Speaker) The Importance of Chemical Management for Healthcare Sector	FOMEMA Sdn. Bhd.
22.	2022	(Keynote Speaker) Environmental Impacts and Human Health: Where are we in the Sustainable Development Goals Era?	SHELL Business Service Centre
23.	2023	(Invited Speaker) Crisis of Modern Agriculture- The Effects of Synthetic Pesticides on our Community and Children	Malaysia Demeter Association (MDA)
24.	2024	(Invited Speaker) The Importance of CHRA in the Laboratory	International Scientific Webinar (ISW) 2024 – Persatuan Pegawai Sains Malaysia (PPSM)
25.	2024	(Keynote Speaker) Agricultural Health and Safety: Where are we in the midst of Climate Crisis	Pesticide Action Network Asia Pacific (PANAP)

Intellectuals Property			
Patent Granted			
No.	Date	Patent No.	Name
1.	31/12/2019	CRAR00004419	Flood Learning Educational Kit – Pictures of the Kit Component