

CURRICULUM VITAE



Name: MANRAJ SINGH CHEEMA
 Position: Senior Lecturer
 Department of Biomedical Science
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Education

1. PhD. Molecular Toxicology, University of Surrey, Guildford, Surrey, UK
2. B.Sc. Biomedical Sciences (1st Class), Universiti Putra Malaysia, Selangor, Malaysia
3. Diploma, Animal Health and Production, Universiti Putra Malaysia, Selangor, Malaysia

Areas of Interest

1. Teaching and Learning in Medical and Health Sciences
2. Gamification and Game-Based Learning in Medical and Health Sciences
3. Toxicology/Molecular Toxicology studies of natural products, natural and synthetic compounds, chemicals, microplastics, etc.
4. Association of nuclear import gene and nuclear receptors through genomic, transcriptomics and proteomics approaches.

Professional Qualification/ Membership/ Affiliation

1. Young Scientists Network-Academy of Sciences Malaysia
2. Malaysia University MOOC
3. UPM Teaching and Learning Innovation Committee
4. BioMed KL (Association of Biomedical Graduates, Kuala Lumpur and Selangor, Malaysia)
5. Golden Key International Honours Society

Appointments (Inside and Outside UPM)

Date	Designation	Remarks
24-2-2012 – till now	Senior lecturer	Molecular Toxicology/Toxicology/Pharmacology

Publications

Journals (in 5 years)

1. Hakim, M. N., Yee, P. C., Cheema, M. S., Keong, Y. Y., & Ahmad, Z. (2024). Anti-atherogenic effect of Channa striatus fish extract in high cholesterol-fed rabbits. *Tropical Journal of Pharmaceutical Research*, 23(7), 1083-1092.
2. Lim, C. W., Liew, K. Y., Lim, S. H., Cheema, M. S., Sulaiman, P. S., Harith, H. H., ... & Tham, C. L. (2024). Student acceptance towards AsepticTech VR: a teaching and learning tool for cell and

- tissue culture aseptic techniques. *International Journal of Educational Technology in Higher Education*, 21(1), 36.
3. Lim, C. W., Liew, K. Y., Lim, S. H., **Cheema, M. S.**, Sulaiman, P. S., Harith, H. H., ... & Tham, C. L. (2024). Acquisition of aseptic techniques using virtual reality: a randomized trial on performance, emotion and experience. *Education and Information Technologies*, 1-28.
 4. Manoharan, S. D., Hamid, H. A., Hashim, N. F. M., **Cheema, M. S.**, Chiroma, S. M., Mustapha, M., & Mehat, M. Z. (2024). Could protein phosphatase 2A and glycogen synthase kinase-3 beta be targeted by natural compounds to ameliorate Alzheimer's pathologies?. *Brain Research*, 148793.
 5. Hadi, P., Rampal, S., Neela, V. K., **Cheema, M. S.**, Sarawan Singh, S. S., Kee Tan, E., & Sinniah, A. (2023). Distribution of causative microorganisms in diabetic foot infections: A ten-year retrospective study in a tertiary care hospital in central Malaysia. *Antibiotics*, 12(4), 687.
 6. **Cheema, M. S.***, Liew C. T., Lee, Y. J. (2023). Building Back Better a Flexible, Resilient and Sustainable Higher Education Landscape in a Post-COVID-19 World: A Systematic Literature Review. Submitted to Higher Education Research and Development Journal (IF 3.851, Q1)
 7. **Cheema, M. S.** (2022). The Need for a Consolidated, Coherent, Collaborative and Continuous Future-Ready Malaysian Allied Health Professions Education. *Malaysian Journal of Medicine and Health Sciences*, 18(3):1-4. (ISSN 1675-8544; Scopus)
 8. Selvaraju, G. D., Umapathy, V. R., Sumathi Jones, C., **Cheema, M. S.**, Jayamani, D. R., Dharani, R., ... & Yadav, S. (2022). Fabrication and characterization of surgical sutures with propolis silver nano particles and analysis of its antimicrobial properties. *Journal of King Saud University-Science*, 34(5), 102082.
 9. M. Pauzi, N. A., **Cheema, M. S.**, Ismail, A., Ghazali, A. R., & Abdullah, R. (2022). Safety assessment of natural products in Malaysia: current practices, challenges, and new strategies. *Reviews on environmental health*, 37(2), 169-179.
 10. Romli, M. H., Wan Yunus, F., **Cheema, M. S.**, Abdul Hamid, H., Mehat, M. Z., Md Hashim, N. F., ... & Jaafar, M. H. (2022). A Meta-synthesis on Technology-Based Learning Among Healthcare Students in Southeast Asia. *Medical Science Educator*, 1-21. <https://doi.org/10.1007/s40670-022-01564-3> (IF 0.76, Q4)
 11. **Cheema, M. S.***, Syed Alwi, S. S., Hashim, N. F. M., Othman, Z., Seri Narti Edayu Sarchio, S. N. E., Liew C. T., Praveena, S. M. (2022). A Wake-Up Call: Covid-19 and Its Impact on Reforming Biosciences Education towards Resiliency and Sustainability. *Malaysian Journal of Medicine and Health Sciences*, 120-130 (Scopus)
 12. **Cheema, M. S.***, Syed Alwi, S. S., Hashim, N. F. M., Othman, Z., Seri Narti Edayu Sarchio, S. N. E., Liew C. T. (2022). Teaching and Learning of Biosciences in a Digital World: Challenges and Effective Teaching Strategies During and After Covid-19 Pandemic. *Malaysian Journal of Medicine and Health Sciences*, 144-152 (Scopus)
 13. Chau, D. M., Chai, L. C., **Cheema, M. S.**, & Veerakumarasivam, A. (2021). Mainstreaming responsible conduct of research education in Malaysia. *Forensic Sciences Research*, 6(4), 338-340.
 14. **Cheema, M. S.** (2020). Covid-19 revolutionising higher education: An educator's viewpoint of the challenges, benefits and the way forward. *Life Sciences, Medicine and Biomedicine*, 4(9). <https://doi.org/10.28916/lsm.4.9.2020.61>
 15. Romli, M. H., **Cheema, M. S.**, Mehat, M. Z., Hashim, N. F. M., & Hamid, H. A. (2020). Exploring the effectiveness of technology-based learning on the educational outcomes of undergraduate healthcare students: an overview of systematic reviews protocol. *BMJ open*, 10(11), e041153.

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16. Yahya, F. A., Hashim, N. F. M., Ali, D. A. I., Ling, T. C., & **Cheema, M. S.** (2020). A brief overview to systems biology in toxicology: the journey from in-vivo, in-vitro and-omics. *Journal of King Saud University-Science*, 101254.
 17. Jarrar, Q. B., Hakim, M. N., Zakaria, Z. A., **Cheema, M. S.**, & Moshawih, S. (2020). Renal ultrastructural alterations induced by various preparations of mefenamic acid. *Ultrastructural pathology*, 44(1), 130-140.
 18. Praveena, S. M., **Cheema, M. S.**, & Guo, H. R. (2019). Non-nutritive artificial sweeteners as an emerging contaminant in environment: A global review and risks perspectives. *Ecotoxicology and environmental safety*, 170, 699-707.

Conference Proceedings (in 5 years)

1. **Cheema MS** (2021). *Resilience in the New Normal: Riddle-Based Game and Digital Case Studies as an Interactive Online Learning Tool in Pharmacology and Toxicology*. YSN-ASM International Scientific Virtual Conference (ISVC) 2021. **Awarded the Young Investigator Award (Social Sciences)**.
2. **Cheema MS** (2021). *Implementation of Safe Exam Browser (SEB) in Universiti Putra Malaysia: Functionality and Challenges*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Gold Medal**.
3. **Cheema MS** (2021). *The impact of COVID-19 pandemic on E-learning perception and effectiveness Among students and educators from a higher education institution in Malaysia*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Silver Medal**.
4. **Cheema MS** (2020). *COVID-19 silver lining: Gamified case studies as an online learning tool in pharmacology & toxicology*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Gold Medal**.
5. **Cheema MS** (2020). *Riddle-based game as a forensic science teaching tool in an online learning environment: A COVID-19 blessing*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Gold Medal**.
6. **Cheema MS** (2020). *Who killed Mantaraj?: A scientific inquiry-based learning implementing forensic science in primary, secondary and tertiary education*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Gold Medal**.
7. **Cheema MS** (2020). *Empowering innovative educators via substitute blended learning (PTG)*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Gold Medal**.
8. **Cheema MS** (2020). *A preliminary outcome of an overview of systematic reviews to explore the effectiveness of technology-based learning for the undergraduate healthcare students*. Putra InnoCreative Carnival in Teaching and Learning 2020 (PICTL 2020). **Awarded the Silver Medal**.

Books (If any)

1. Malaysian Educational Module on Responsible Conduct of Research, Kuala Lumpur, Malaysia: Academy of Sciences Malaysia 2018. ISBN 978-983-2915-37-91
2. *Gen, Inovasi Kehidupan*. ISBN 978-983-2915-53-9

Chapter in Books (If any)

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Research Grants
Received 2020

1. Incentive Grant of Learning and Education (GIPP 2023), 'Who Killed Manitaraj?' - Creation of Gamified Virtual Reality Serious Game to Increase Engagement, Motivation, Immersion and Mindful Learning in Forensic Science, RM20,000
- 2.

On-going

Incentive Grant of Learning and Education (GIPP 2023), 'Who Killed Manitaraj?' - Creation of Gamified Virtual Reality Serious Game to Increase Engagement, Motivation, Immersion and Mindful Learning in Forensic Science, RM20,000

Research Grants

No.	Project Title	Amount (RM)	Year	Source of Fund
1.	'Who Killed Manitaraj?' - Creation of Gamified Virtual Reality Serious Game to Increase Engagement, Motivation, Immersion and Mindful Learning in Forensic Science	20,000	2023	GIPP
2.	Acquisition of Proper Aseptic Technique using Virtual Reality to Improve the Learning and Research among Biomedical Science Undergraduate and Postgraduate Students	20,000	2019	GIPP
3.	Cytotoxicity mechanism of glyphosate formulation with POEA and oil palm based adjuvants on human epidermal cell line	103,000	2015	FRGS
4.	Preliminary investigations on the development of antitumor-promoting	44,000	2014	FRGS

related phytopharmaceutical products from
 dicranopteris linearis

5.	Determination of molecular targets and anti-invasive effects of a synthetic curcuminoid analogue, 2,6-bis(4-hydroxy-3-methoxybenzylidene) cyclohexanone or BHMC in hypoxia-induced human cancer cells	155,880	2014	FRGS
6.	Inhibitory Effect of 2,4,6-trihydroxy-3-geranylacetophenone (tHGA) on Mast Cell Degranulation in Allergic Asthma	172,000	2013	FRGS
7.	Governance of the Human Nuclear Importin Protein KPNA2 by Xenobiotics	130,000	2013	FRGS

Awards/ Recognition (Current)				
No.	Name of awards	Award Authority	Award Type	Year
1.	Vice Chancellor Fellowship Award for Teaching Category (AFNC-KP) 2023	Universiti Putra Malaysia	Fellowship	2024
2.	International Putra InnoCreative Carnival in Teaching and Learning 2021 (iPCTL 2023)	Universiti Putra Malaysia	Gold medal	2023
3.	International University Carnival on E-Learning (IUCEL) 2022	Universiti Putra Malaysia	2 Silver Medals	2022
4.	Winner of the Young Investigator Award (Track D:	YSN-ASM	Certificate and Cash	2021



Social Sciences and Humanities) at the YSN-ASM International Scientific Virtual Conference (ISVC) 2021

5.	International Putra InnoCreative Carnival in Teaching and Learning 2021 (iPICTL 2021)	Universiti Putra Malaysia	1 Gold medal and 1 silver medal	2021
6.	International Putra InnoCreative Carnival in Teaching and Learning 2020 (iPICTL 2020)	Universiti Putra Malaysia	4 Gold medals and 1 silver medal	2020
7.	Karnival Inovasi Pengajaran & Pembelajaran 2019	Knovasi, UKM	1 Gold medal	2019
8.	Young Researcher Award at the ASEAN Emerging Researcher Conference (ASEAN-ERC) 2019	Sunway University	Certificate	2019
9.	Best Young Lecturer Award	FMHS< UPM	Certificate	2015, 2020-2022

Professional Services/ Consultation

No.	Year	Title	Authority
1.			
2.			

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status
1.			
2.			
3.			

Master with Thesis (Main Supervisor)

No.	Name	Title	Status
1.	Farizatul Akmawati Yahya	Regulation of the human karyopherin alpha group of family	Graduated
2.			
3.			

Master without Thesis (Main Supervisor)

No.	Name	Title	Status
1.			

- 2.
- 3.

Attended Seminars/ Workshops/ Forums both National and International

No.	Year	Title	Organizers
1.	2024	Ethics in Science	ASM & MOSTI
2.	2024	RCR for Chrysalis Award	YSN-ASM
3.	2023	Responsible Conduct of Research Workshop	YSN-ASM & AKEPT
4.	2022	Faculty of Medicine and Health Sciences, UPM 2022. Overview of Micro-credential	FMHS, UPM
5.	2021	Engaging, Inspiring and Transforming the Learners of Tomorrow	Academy of Sciences Malaysia (ASM)
6.	2021	Online Tools to Enhance Student's Engagement	Riyadh Elm University's Quality Assurance and Accreditation Centre (QAAC)
7.	2021	Ucaptive Bulan Pendidik: Covid-19: From Disruption To Innovation	CADe, UPM
8.	2021	UPM's HOTS Assessment Webinar Series 2021. Rekindle the Passion in PutraBlast: Designing and Developing E-assessment.	FMHS, UPM
9.	2021	UPM's HOTS Assessment Webinar Series 2021. Strategies of Preparing HOTS Assessment	FMHS, UPM
10.	2021	Research Misconduct (<i>delivered through virtual active learning pedagogy</i>)	RMC and CPS IIUM Kuantan Campus
11.	2020	Coffee Talk Academic Series": Effective online learning environment and its Challenges	