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Dr Kenneth Cheung obtained his B.Sc. in Biotechnology from University College London in 2005, followed by an M.Sc. in Medical Sciences from The University of Hong Kong in 2010, and a Ph.D. in Immunology from Queen Mary University of London in 2015. Following his doctoral studies, he undertook postdoctoral training at The William Harvey Research Institute in London and subsequently served as a Research Assistant Professor at The Chinese University of Hong Kong and Hong Kong Baptist University.

During his time at the Hong Kong Traditional Chinese Medicine Phenome Research Centre of HKBU, he established metabolomics platforms (HPLC/ MS) that support biomarker discovery and therapeutic innovation. His work on T-cell immunology, published in *Immunity*, *Cell Metabolism*, and *Nature Communications*, advances our understanding of how metabolic rewiring governs immune tolerance and inflammation. He has secured major funding, including two General Research Fund projects from the Research Grants Council (RGC) in 2023 and 2026 respectively; Collaborative Research Fund from the University Grants Committee (UGC) for collaborations in metabolomics/cryo-electron microscopy; Guangdong Provincial Key Laboratory initiatives; and the RGC PROCORE France/Hong Kong Joint Research Scheme.

Dr Cheung is committed to teaching and mentoring, cultivating the next generation of scientists and strengthening Hong Kong's leadership in metabolomics and phenomics.

張質彬博士於 2005 年修畢倫敦大學學院生物技術學士學位、2010 年取得香港大學醫學科學碩士學位，並於 2015 年獲頒倫敦瑪麗皇后大學免疫學博士學位。他在英國威廉哈維研究所 (WHRI) 完成博士後研究，並先後擔任香港中文大學及香港浸會大學的研究助理教授。

在浸大香港中醫藥表型組學研究中心工作期間，他建立了以高效液相層析 (HPLC) 和質譜 (MS) 為核心的代謝組學平台，推動生物標誌物發現及治療創新。他在 T 細胞免疫學的研究成果發表於 *Immunity*、*Cell Metabolism* 和 *Nature Communications* 等國際頂尖期刊，深

入揭示代謝重編程如何調控免疫耐受與炎症。他的研究獲得多項重大資助，包括分別於 2023 年及 2026 年獲得的研究資助局優配研究金；大學教育資助委員會協作研究基金，用於代謝組學/冷凍電子顯微技術的合作項目；參與廣東省重點實驗室的研究工作；以及研資局 PROCORE 法國/香港聯合研究計劃。

張博士致力於教學與指導工作，培育新一代科學家，並鞏固香港在代謝組學與表型組學領域的國際領導地位。

Selected Publications 精選出版物

(Co-Corresponding author*)

1. Fang Y, Wenqiong Huang, Yu Zeng, Claudio Mauro, Aiping Lyu, **KCP Cheung*** (2027). Protective Role of HDCA Against Exosomal Release of LncRNA MSTRG171708 in Hepatocellular carcinoma **[Molecular Biomedicine**, IF**13**]
2. Feng Yang,Wenqiong Huang, Zongzhen Meng, Meijun Liu, Aiping Lyu, Claudio Mauro, **KCP Cheung*** (2026). Hyodeoxycholic Acid Attenuates Atherosclerosis by Antagonizing FXR and Modulating the PD-1/mTORC1 Signaling Axis [**Redox Biology**, IF**16**].
3. Zeng, Xiaoli Chen, Wenqiong Huang, Chi Ho Chan, Ziqi Chen, Minchuan Lyu, Yumeng Liu, Meijun Liu, Aiping Lyu, Claudio Mauro, Yuanyuan Yu* & **KCP Cheung*** (2025). Targeting tumor-infiltrating regulatory T cells: combining CD47 and PD-L1 inhibition via a novel aptamer-siRNA chimera [**Molecular Biomedicine**, IF**13**]
4. Chengqiang Wang; Lu Wang; Qing Zhao; Jiao Ma; Yitao Li; Junliang Kuang; Xintong Yang; Aiping Lu, Aiping Lyu, Aiping Lv; **KCP Cheung***, Gerry Melino* et al. (2024). Exploring fructose metabolism as a potential therapeutic approach for pancreatic cancer. [**Cell Death and Differentiation,** IF **16**] (Co-Corresponding author).
5. **KCP Cheung***, Ma, J., et al. (2024). CD31 orchestrates metabolic regulation in autophagy pathways of rheumatoid arthritis [**Pharmacological Research,** IF **11**].
6. J Kuang, Jieyi Wang, Y Li , M Li, M Zhao, Kun Ge, Dan Zheng, **KCP Cheung** *et al* (June 2023). Hyodeoxycholic acid alleviates non-alcoholic fatty liver disease through modulating the gut-liver axis [**Cell Metabolism**, IF **34.41**].
7. **KCP Cheung**, Silvia Fanti, Claudio Mauro, Guosu Wang, Anitha Nair, Hongmei Fu, Silvia Angeletti, Silvia Spoto, Marta Fogolari, Francesco romano, Dunja Aksentijevic, Weiwei Liu, Baiying Li, Eason Cheng, LW Jiang, Juho Vuononvirta, T Poobalasingam, David Smith, Massimo Ciccozzi, Egle Solito, Federica M-Berg (2020). Preservation of microvascular barrier function requires CD31 receptor-induced metabolic reprogramming [**Nature Communications**, IF **14.9**].
8. M Kishore^, **KCP Cheung**^ (Co-first authors), Hongmei Fu, Fabrizia Bonacina, Guosu Wang, David Coe, Eleanor Ward, Alessandra Colamatteo, Maryam Jangani, Andrea

Baragetti, Giuseppe Matarese, David Smith, Robert Haas, Claudio Mauro, David Wraith, Klaus Okkenhaug, Alberico Catapano, Veronica De Rosa, Danilo Norata, and Federica M. Marelli-Berg (2017). Regulatory T-cell migration is dependent on glucokinase-mediated glycolysis [**Immunity**, IF **33.47**]. *Recommended by Faculty of 1000prime. https://f1000.com/prime/733072174*.

9. **KCP Cheung**, Ma L, Wang G, Coe D, Ferro R, Falasca M, Buckley CD, Claudio Mauro, and Marelli-Berg FM (2015). CD31 signals confer immune privilege to the vascular endothelium [**PNAS**, IF **11.20**] *PNAS featured article with commentary*.
10. Liu, M., Huang, W., Chen, X., Meng, Z., Yang, J., Azevedo, L. R., Zheng, X., Shen, H., Jia, W., Lyu, A. & **Cheung, K*** (2025). CD31 regulates metabolic switch in Treg migration attenuates rheumatoid arthritis [**Clinical and Translational Medicine** IF:**6.7**]
11. Nguyen, C., **KCP Cheung**, Chen, X., Saint-Pol, J., Shimizu, F., Kanda, T., Pot, C., Culot, M., Chan, K. W. Y., Wang, L., Lu, A., Jia, W. & Gosselet, F., (Dec 2025) Metabolic profiles of the human blood-brain barrier cells treated by TNF-alpha and oxysterols. [**Biomedicine and Pharmacotherapy,** IF **8**].
12. E Stephenson, D Coe, S Nadkarni, **KCP Cheung**, *et*, *al* (2018). c-Met as a novel T-cell marker in patients with acute myocarditis and dilated cardiomyopathy [**European Heart Journal**, IF **35.86**].
13. Dai, H., Abdullah, R., Huang, W., Chen, X., Lu, A. & **Cheung, K*** (2026). 5′-NucA-SMCC-DM1 and 5′-NucA-SPDMV-DM1 are Potent Aptamer–Drug Conjugates against Pancreatic Cancer [**ACS Omega,** IF **5**]. cover image
14. Vivek Venkataramani, Stefan Küffer, **KCP Cheung**, Xuejun Jiang, Lorenz Trümper, Gerald G Wulf, Philipp Ströbel (2017). CD31 Expression Determines Redox Status and Chemoresistance in Human Angiosarcomas [**Clinical Cancer Research**, IF **13.80**].
15. **CP K CHEUNG***, Jiao MA, Rodrigo Loiola, X CHEN, and W JIA (2023), Regulation of Immune Cell Functions by Bile Acid-Activated Receptors [**European Journal of Immunology** IF **6.0**] .
16. **CP K CHEUNG***, Ma, J., Chen, X. & Jia, W (Jan 2023). Extracellular vesicles derived from host and gut microbiota as promising nanocarriers for targeted therapy in osteoporosis and osteoarthritis [**Frontiers in Pharmacology** IF **6.1**].
17. Wei Jia, Yitao Li, **CP K CHEUNG**, X Zheng (2023). Bile acid signaling in the regulation of whole body metabolic and immunological homeostasis [**Sci China Life Sci**, IF **10.38**].
18. David Coe, T Poobalasingam, H Fu, **KCP Cheung** et al., Federica M Marelli-Berg (2022). Loss of voltage-gated hydrogen channel 1 expression reveals heterogeneous metabolic adaptation to intracellular acidification by T cells [**JCI Insight**, IF **6.23**].
19. Yonglun Zeng, Baiying Li, Changyang Ji, Lei Feng , Fangfang Niu , Cesi Deng, Shuai Chen, Youshun Lin, **KCP Cheung**, Jinbo Shen, Kam-Bo Wong, Liwen Jiang (2021). A unique AtSar1D-AtRabD2a nexus modulates autophagosome biogenesis in Arabidopsis thaliana [**PNAS**, Impact factor: **9.20**].
20. Michelangelo Certo, Hagar Elkafrawy, Valentina Pucino, Danilo Cucchi, **KCP Cheung**, and **Claudio Mauro** (2020). Endothelial and T cell crosstalk: targeting metabolism as a

therapeutic approach in chronic inflammatory disorders [**British Journal of Pharmacology**, IF: **6.8**].

21. Rui, T., Wei, H., Huaibo, J., Han, M., **KCP Cheung*** & Yang, C. (2024). Comparation of abdominal aortic balloon occlusion versus uterine artery embolization in the treatment of cesarean scar pregnancy [**Frontiers in Medicine**].
22. Wang, Y., Zeng, Y., Chen, X., Lu, A., Jia, W. & **KCP Cheung*** (2024). Gut microbiota modulation through Traditional Chinese Medicine - improving outcomes in Gastrointestinal cancer prevention and management [**Pharmacological Research - Modern Chinese Medicine]**.
23. Dai, H., Chen, X., Yang, J., Loiola, R. A., Lu, A. & **KCP Cheung*** (2024). Insights and therapeutic advances in pancreatic cancer: the role of electron microscopy in decoding the tumor microenvironment [**Frontiers in Cell and Developmental Biology**].