Kelvin, Ka-lok WU
Research Assistant Professor

Research interests

Obesity-induced adipose tissue inflammation and its complications.
Immunometabolism and mitochondria homeostasis in macrophages.

Education

2017 – 2020	PhD, Department of Health Technology and Informatics, The Hong Kong Polytechnic University
2015 – 2017	Master of Philosophy, Department of Medicine, University of Hong Kong
2010 – 2013	BSc (Hons) in Applied Biology with Biotechnology, Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University (Second Class Honours, Division 1)
2008 – 2010	Associate of Applied Science in Life Science (Biological Science) with Distinction, HKU SPACE Community College

Brief summary of experience and posts held

Jan 2021 – now	Research Assistant Professor The Hong Kong Polytechnic University, HK
Sep 2020 – Jan 2021	Research Associate The Hong Kong Polytechnic University, HK
Jan 2017 – Aug 2017	Research assistant The Hong Kong Polytechnic University, HK
2013 – 2014	Intern Nano and Advanced Materials Institute Limited, HK

Awards and Honors

14th International Symposium on Healthy Aging, Young Investigator Award (Poster Category) supported by Sun Chieh Yeh Heart Foundation

2009-2010 Principal's Honours List, HKU SPACE Community College

Publications

1. **Wu, K. K.**, Cheung, S. W., & Cheng, K. K. (2020). NLRP3 Inflammasome Activation in Adipose Tissues and Its Implications on Metabolic Diseases. *International Journal of Molecular Sciences, 21*(11), 4184. doi:10.3390/ijms21114184. Impact factor (2019): 4.556. Rank of journal: 74/297 (Top 25 %) in the field of Biochemistry and Molecular Biology.

2. Liu, Z., **Wu, K. K.**, Jiang, X., Xu, A. & Cheng, K. K. (2020). The role of adipose tissue senescence in obesity- and ageing-related metabolic disorders. *Clinical Science, 134*(2), 315-330. doi:10.1042/cs20190966. Impact factor (2019): 5.223. Rank of journal: 24/138 (Top 25 %) in the field of Medicine, Research & Experimental.

3. Liu, Z., Jin, L., Yang, J., Wang, B., **Wu, K. K.**, Hallenborg, P., Xu, A., Cheng, K. K. (2018). The Dysfunctional MDM2–p53 Axis in Adipocytes Contributes to Aging-Related Metabolic Complications by Induction of Lipodystrophy. *Diabetes, 67*(11), 2397-2409. doi:10.2337/db18-0684. Impact factor (2018): 7.19. Rank of journal: 8/128 (Top 6.25 %) in the field of Endocrinology and Metabolism.

4. Wang, B., Li, A., Li, X., Ho, P. W., Wu, D., Wang, X., Liu, Z., **Wu, K.K.**, Yau, S.S., Xu, A. & Cheng, K. K. (2018). Activation of hypothalamic RIP -Cre neurons promotes beiging of WAT via sympathetic nervous system. *EMBO Reports, 19*(4). doi:10.15252/embr.201744977. **(Selected for commentary)**. Impact factor: 8.57. Rank of journal: 20/292 (Top 10 %) in the field of Biochemistry & Molecular Biology.

5. Jiang, X., Zhou, Y., **Wu, K. K.**, Chen, Z., Xu, A. & Cheng, K.K. (2017). APPL1 prevents pancreatic beta cell death and inflammation by dampening NFκB activation in a mouse model of type 1 diabetes. *Diabetologia,60*(3):464-474. doi:10.1007/s00125-016-4185-z. Impact factor: 6.32. Rank of journal: 12/133 (Top 10 %) in the field of Endocrinology and Metabolism.

Abstracts published in international conferences

Wu, K. K., Xu, A. & Cheng, K. K. Deficiency of APPL1 in macrophages triggers adipose tissue inflammation and insulin resistance by potentiating NLRP3 inflammasome activation. 79th Scientific Sessions by American Diabetes Association. California, USA.

Wu, K. K., Xu, A. & Cheng, K. K. The adaptor protein APPL1 prevents adipose tissue macrophage inflammation in obesity by restricting NLRP3 inflammasome activation. International Conference on Molecular Mechanism of Inflammation. Trondheim, Norway.

Wu, K. K., Wang, K., Long, K., Wang, L., Lin, H., Xu, A. & Cheng, K. K. Hematopoietic APPL1 inhibits macrophage-mediated adipose tissue inflammation and insulin resistance in obesity by dampening NLRP3 inflammasome activation. 14th international Symposium on Healthy Aging. Hong Kong.

Wu, K. K., Liu, Z., Lam, K. S., Xu, A. & Cheng, K. K. MDM2 deficiency impairs macrophage M1 activation and bactericidal activity against lethal sepsis. Keystone Symposia on Molecular and Cellular Biology: Cell stress responses and infectious agents. New Mexico, USA.

Service to professional & scientific bodies, consultancy, membership of professional & learned societies

2021 – now	Review Editor, Frontiers in Medicine
2018 – now	University Research Facility in Life Sciences User group