

LI Hoi Yee Gloria
(Research Assistant Professor)



Qualifications:

- The University of Hong Kong: Bachelor of Science in Bioinformatics.
- The University of Hong Kong: Master of Philosophy at Department of Chemistry, Open Laboratory of the Institute of Molecular Technology for Drug Discovery and Synthesis.
- The University of Hong Kong: Doctor of Philosophy at Department of Medicine.

Brief outline of experience and posts held:

10/2017 – 10/2018	Research Assistant I, Department of Pharmacology and Pharmacy, The University of Hong Kong
11/2018 – 09/2020	Postdoctoral Fellow, Department of Pharmacology and Pharmacy, The University of Hong Kong
09/2020 – Present	Research Assistant Professor, Department of Health Technology and Informatics, The Hong Kong Polytechnic University

Research interests:

- Bioinformatics
- Genetics
- Identification of biomarkers and development of risk prediction algorithms for early diagnosis of diseases
- Identification of therapeutic targets for intervention of diseases

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

- Expert reviewee of *Endocrine Connections*' Editorial Board.
- Ad-hoc reviewer of international peer-reviewed journals: *Annals of Translational Medicine*, *Arthritis Research & Therapy*, *Bioscience Reports*, *BMC Cancer*, *BMC Cardiovascular Disorders*, *BMC Endocrine Disorders*, *BMC Genomics*, *BMC Medical Genomics*, *BMC Medicine*, *BMC Musculoskeletal Disorders*, *BMC Psychiatry*, *BMC Urology*, *BMC Women's Health*, *Diabetology & Metabolic Syndrome*, *The BMJ*, *Frontiers in Endocrinology*, *Frontiers in Microbiology*, *Genes & Nutrition*, *JAMA Network Open*, *Journal of Diabetes*, *Journal of Medical Internet Research*, *Journal of Personalized Medicine*, *Metabolites*, *Nutrients*, *Osteoporosis and Sarcopenia*, *Scientific Reports*, *Virology Journal*.
- Honorary Secretary of the Institute of Cardiovascular Science and Medicine, Li Ka Shing Faculty of Medicine, The University of Hong Kong since January 2021.
- Member of the Korean Endocrine Society, and the Osteoporosis Society of Hong Kong.

Awards:

- 05/2008 Awarded the **Young Investigator Award** at the 9th Regional Osteoporosis Conference.
- 04/2018 Awarded the **Travel Grant** at the Sixth Seoul International Congress of Endocrinology and Metabolism, Seoul, Korea.
- 11/2020 Awarded the **Plenary Oral Presentation Award** at the 17th Asia-Oceania Congress of Endocrinology and the 8th Seoul International Congress of Endocrinology and Metabolism, Seoul, Korea.
- 05/2023 Awarded the **Travel Grant** at the 11th Seoul Symposium on Bone Health & the 35th Spring Scientific Congress of the Korean Society for Bone and Mineral Research, Seoul, Korea.

Funded grants:

- 07/2020 – 01/2022 Health and Medical Research Fund (Project No.: 17181391) **Development and validation of hip fracture risk prediction model using electronic medical records in Hong Kong: a machine learning approach** (HKD526,400, as **Principal Investigator**)
- 07/2021 – 06/2023 Start-up Fund for RAPs under the Strategic Hiring Scheme (Internal grant) **Evaluating the association of thyroid status with various health outcomes: an integrated approach of observational and Mendelian Randomization studies** (HKD249,937.50, as **Principal Investigator**)
- 12/2021 – 12/2023 Project of Strategic Importance (Internal grant) **Pathogenic pathways underlying adipose tissue dysfunction in ageing and its associated type 2 diabetes: from mechanistic understanding to biomarker discovery** (HKD1,944,000, as **Co-Investigator**)
- 06/2022 – 05/2024 Internal grant for General Research Fund Proposals Rated 3.5 in 2020-21. **Association of thyroid-stimulating hormone with dementia: a pilot study** (HKD100,000, as **Principal Investigator**)
- 10/2022 – 10/2024 Health and Medical Research Fund (Project No.: 19201491) **Atypical femoral fractures - a personalised risk assessment tool powered by machine learning combining clinical, radiographic, and genetic risk factors** (HKD95,895, as **Co-Investigator**)
- 01/2023 – 12/2024 General Research Fund 2022/23 (Project No.: 15105622) **Identification of risk factors and examination of long-term health outcomes of thyrotoxic periodic paralysis: a population-based registry in Hong Kong using big data analytics approach** (HKD489,554, as **Principal Investigator**)
- 02/2023 – 02/2024 Sun Chieh Yeh Heart Foundation Research Grant. **Is subclinical hypothyroidism associated with cardiovascular disease and mortality? A population-based cohort study in Hong Kong** (HKD60,000, as **Principal Investigator**)
- 06/2023 – 05/2026 Health and Medical Research Fund (Project No.: 10211696) **Subtyping and diagnosis of schizophrenia by systems-biology analytics** (HKD1,420,364, as **Co-Investigator**)
- 10/2023 – 10/2025 Health and Medical Research Fund (Project No.: 20211121) **Establishment of age- and sex-specific reference intervals for TSH and FT4 in Hong Kong** (HKD363,872, as **Principal Investigator**)

Representative Journal Articles:

1. Cheung CL, Li GH, Li HL, Mak C, Tan KC, Kung AW. (2023) **Development and validation of the Chinese osteoporosis screening algorithm (COSA) in identification of people with high risk of osteoporosis.** *Osteoporos Sarcopenia.* 9(1):8-13.
2. Li GH, Cheung CL, Tan KC, Kung AW, Kwok TC, Lau WC, Wong JS, Hsu WW, Fang C, Wong IC. (2023) **Development and validation of sex-specific hip fracture prediction models using electronic health records: a retrospective, population-based cohort study.** *EClinicalMedicine.* 58:101876.
3. Krishnamoorthy S, Li GH, Cheung CL. (2023) **Transcriptome-wide Summary Data based Mendelian Randomization analysis reveals 38 novel genes associating with Severe COVID-19.** *J Med Virol.* 95(1):e28162.
4. Ge GM, Cheung ECL, Man KKC, Ip P, Leung WC, Li GHY, Kung AWC, Cheung CL, Wong ICK. (2022) **Association of maternal levothyroxine use during pregnancy with offspring birth and neurodevelopmental outcomes: a population-based cohort study.** *BMC Med.* 20(1):390.
5. Ho SC*, Li GH* (*co-first author), Leung AY, Tan KCB, Cheung CL. (2022) **Unravelling genetic causality of haematopoiesis on bone metabolism in human.** *Eur J Endocrinol.* 187(6):765-775.
6. Hsu WWQ, Zhang X, Sing CW, Li GHY, Tan KCB, Kung AWC, Wong JSH, Wong IC, Cheung CL. (2022) **Hip Fracture as a Predictive Marker for the Risk of Dementia: A Population-Based Cohort Study.** *J Am Med Dir Assoc.* 23(10):1720.e1-1720.e9.
7. Zhang X, Hsu WWQ, Sing CW, Li GHY, Tan KCB, Kung AWC, Wong JSH, Wong IC, Cheung CL. (2022) **Low Bone Mineral Density With Risk of Dementia: A Prospective Cohort Study.** *J Am Med Dir Assoc.* 23(10):1719.e9-1719.e19.
8. Cheung CL, Ho SC, Krishnamoorthy S, Li GH. (2022) **COVID-19 and Platelet Traits: A Bi-directional Mendelian Randomization Study.** *J Med Virol.* 94(10):4735-4743.
9. Li GH, Tang CM, Cheung CL. (2022) **COVID-19 and thyroid function: A bi-directional two-sample Mendelian randomization study.** *Thyroid.* 32(9):1037-1050.
10. Hsu WWQ, Sing CW, Li GHY, Tan KCB, Cheung BM, Wong JSH, Wong IC, Cheung CL. (2022) **Immediate Risk for Cardiovascular Events in Hip Fracture Patients: A Population-Based Cohort Study.** *J Gerontol A Biol Sci Med Sci.* 77(9):1923-1929.
11. Li GH, Cheung CL, Chung AK, Cheung BM, Wong IC, Fok MLY, Au PC, Sham PC. (2022) **Evaluation of bi-directional causal association between depression and cardiovascular diseases: a Mendelian randomization study.** *Psychol Med.* 52(9):1765-1776.
12. Zhang X, Man KW, Li GH, Tan KC, Kung AW, Cheung CL. (2022) **Osteoporosis is a novel risk factor of infections and sepsis: A cohort study.** *EClinicalMedicine.* 49:101488.
13. Ye Y, Hubbard R, Li GH, Ho SC, Sing CW, Cheung CL, Lam DCL. (2022) **Validation of diagnostic coding for interstitial lung diseases in an electronic health record system in Hong Kong.** *Pharmacoepidemiol Drug Saf.* 31(5):519-523.
14. Li GH, Lam SK, Wong IC, Chu JK, Cheung CL. (2021) **Education attainment, intelligence and COVID-19: A Mendelian randomization study.** *J Clin Med.* 10(21):4870. (2021 Impact factor: 4.964; Journal ranking: 55/172)
15. Li GH, Cheung CL, Cheung EY, Chan WC, Tan KC. (2021) **Genetically determined TSH level within reference range is inversely associated with Alzheimer's disease.** *J Clin Endocrinol Metab.* 106(12):e5064-e5074.

16. Tang CT, Sing CW, Kwok TC, **Li GH**, Cheung CL. (2021) **Secular trends in fall-related hospitalizations in adolescents, youth and adults: a population-based study.** *Lancet Reg Health Western Pac.* 12:100183.
17. Cheung CL, Sing CW, Lau WCY, **Li GHY**, Lip GYH, Tan KCB, Cheung BMY, Chan EWY, Wong ICK. (2021) **Treatment with direct oral anticoagulants or warfarin and the risk for incident diabetes among patients with atrial fibrillation: a population-based cohort study.** *Cardiovasc Diabetol.* 20(1):71.
18. Zhang X, Xu H, **Li GH**, Long MT, Cheung CL, Vasani RS, Hsu YH, Kiel DP, Liu CT. (2021) **Metabolomics Insights into Osteoporosis Through Association With Bone Mineral Density.** *J Bone Miner Res.* 36(4):729-738.
19. Cheung CL, **Li GH**. (2021) **Summary of the special issue of the meta-analyses of lean mass with mortality in multiple perspectives.** *Osteoporos Sarcopenia.* 7(Suppl 1):S1-S2.
20. **Li GH**, Lee GK, Au PC, Chan M, Li HL, Cheung BM, Wong IC, Lee VH, Mok J, Yip BH, Cheng KK, Wu CH, Cheung CL. (2021) **The effect of different measurement modalities in the association of lean mass with mortality: A systematic review and meta-analysis.** *Osteoporos Sarcopenia.* 7(Suppl 1):S13-S18.
21. Feng Q, Bønnelykke K, Ek WE, Chawes BL, Yuan S, Cheung CL, **Li GH**, Leung RY, Cheung BM. (2021) **Null association between serum 25-hydroxyvitamin D levels with allergic rhinitis, allergic sensitization and non-allergic rhinitis: A Mendelian randomization study.** *Clin Exp Allergy.* 51(1):78-86.
22. **Li GH**, Cheung CL, Zhao SX, Song HD, Kung AW. (2020) **Genome-wide meta-analysis reveals novel non-ion channel related susceptibility loci for thyrotoxic periodic paralysis.** *Eur J Endocrinol.* 183(6):607-617.
23. Feng Q, Yuan S, Yang Q, Lu Y, Loos RJF, **Li GHY**, Fei Y, Tsoi MF, Cheung CL, Cheung BMY. (2020) **Causal associations between urinary sodium with body mass, shape and composition: a Mendelian randomization study.** *Sci Rep.* 10(1):17475.
24. Ge GM, Leung MTY, Man KKC, Leung WC, Ip P, **Li GHY**, Wong ICK, Kung AWC, Cheung CL. (2020) **Maternal Thyroid Dysfunction During Pregnancy and the Risk of Adverse Outcomes in the Offspring: A Systematic Review and Meta-Analysis.** *J Clin Endocrinol Metab.* 105(12):dgaa555.
25. **Li GH**, Ge GM, Cheung CL, Ip P, Coghill D, Wong IC. (2020) **Evaluation of causality between ADHD and Parkinson's disease: Mendelian randomization study.** *Eur Neuropsychopharmacology.* 37:49-63.
26. Sing CW, Kiel DP, Hubbard RB, Lau WC, **Li GH**, Kung AW, Wong IC, Cheung CL. (2020) **Nitrogen-Containing Bisphosphonates Are Associated With Reduced Risk of Pneumonia in Patients With Hip Fracture.** *J Bone Mineral Res.* Online ahead of print.
27. Chau YP, Au PCM, **Li GHY**, Sing CW, Cheng VKF, Tan KCB, Kung AWC, Cheung CL. (2020) **Serum Metabolome of Coffee Consumption and its Association With Bone Mineral Density: The Hong Kong Osteoporosis Study.** *J Clin Endocrinol Metab.* 105(3):e619-e627.
28. **Li GH**, Robinson-Cohen C, Sahni S, Au PC, Tan KC, Kung AW, Cheung CL. (2020) **Association of Genetic Variants Related to Serum Calcium Levels with Reduced Bone Mineral Density.** *J Clin Endocrinol Metab.* 105(2):e328-e336.
29. Lam MT, Sing CW, **Li GHY**, Kung AWC, Tan KCB, Cheung CL. (2020) **Development and Validation of a Risk Score to Predict the First Hip Fracture in the Oldest Old: A Retrospective Cohort Study.** *J Gerontol A Biol Sci Med Sci.* 75(5):980-986.

30. **Li GH**, Cheung CL, Au PC, Tan KC, Wong IC, Sham PC. (2020) **Positive effects of low LDL-C and statins on bone mineral density: an integrated epidemiological observation analysis and Mendelian Randomization study.** *International Journal of Epidemiol.* 49(4):1221-1235.
31. Leung RYH, **Li GHY**, Cheung BMY, Tan KCB, Kung AWC, Cheung CL. (2019) **Serum metabolomic profiling and its association with 25-hydroxyvitamin D.** *Clin Nutr.* 39(4):1179-1187.
32. Cheung CL, Tan KC, Au PC, **Li GH**, Cheung BM. (2019) **Evaluation of GDF15 as a therapeutic target of cardiometabolic diseases in human: A Mendelian randomization study.** *EBioMedicine* 41:85-90.
33. **Li GH**, Deng HW, Kung AW, Huang QY. (2011) **Identification of genes for bone mineral density variation by computational disease gene identification strategy.** *J Bone Miner Metab* 29(6):709-716.
34. **Li HY**, Kung WC, Huang QY. **Bone mineral density is linked to 1p36 and 7p15-13 in a southern Chinese population.** *J Bone Miner Metab.* 2011 Jan;29(1):80-7.
35. **Li GH**, Cheung CL, Xiao SM, Lau KS, Gao Y, Bow CH, Huang QY, Sham PC, Kung AW (2011) **Identification of QTL genes for BMD variation using both linkage and gene-based association approaches.** *Hum Genet* 130(4):539-546.
36. **Li GH**, Kung AW, Huang QY. (2010) **Common variants in FLNB/CRTAP, not ARHGEF3 at 3p, are associated with osteoporosis in southern Chinese women.** *Osteoporos Int* 21(6):1009-1020.
37. Kung AW, Xiao SM, Cherny S, **Li GH**, Gao Y, Tso G, Lau KS, Luk KDK, Liu JM, Cui B, Zhang MJ, Zhang ZL, He JW, Yue H, Yue H, Xia WB, Luo LM, He SL, Kiel DP, Karasik D, Hsu YH, Cupples LA, Demissie S, Stykarsdottir U, Halldorsson BV, Sigurdsson G, Sigurdsson G, Thorsteinsdottir U, Stefansson K, Richards JB, Zhai G, Soranzo N, Valdes A, Spector TD, Sham PC. (2010) **Association of JAG1 with bone mineral density and osteoporotic fractures: a genome-wide association study and follow-up replication studies.** *Am J Hum Genet* 86(2):229-239.
38. Huang QY, **Li GH**, Kung AW. (2009) **The -9247 T/C polymorphism in the SOST upstream regulatory region that potentially affects C/EBPalpha and FOXA1 binding is associated with osteoporosis.** *Bone* 45(2):289-294.
39. Huang QY, **Li GH**, Kung AW. (2009) **Multiple osteoporosis susceptibility genes on chromosome 1p36 in Chinese.** *Bone* 44(5):984-988.
40. Huang QY, **Li GH**, Cheung WM, Song YQ, Kung AW. (2008) **Prediction of osteoporosis candidate genes by computational disease-gene identification strategy.** *J Hum Genet* 53(7):644-655.

Representative Conference Presentation:

1. **Li GH**, Tang CM, Wu SM, Cheung CL (May 2023). **Genetically determined caffeine intake and bone mineral density: a two-sample Mendelian randomization study.** Oral presentation at the 11th Seoul Symposium on Bone Health & the 35th Spring Scientific Congress of the Korean Society for Bone and Mineral Research, Seoul, Korea. Awarded travel grant.
2. **Li GH**, Tan KCB, Kwok TCY, Lau WCY, Cheung CL (Oct 2022). **Development and Validation of Ethnic- and Sex-Specific Hip Fracture Prediction Models using Electronic Medical Records in Hong Kong.** Poster exhibition at the 10th Seoul International Congress of Endocrinology and Metabolism in conjunction with the 41st Annual Scientific Meeting of Korean Endocrine Society, Hybrid Congress.

3. **Li GH**, Cheung CL, Zhao SX, Song HD, Kung WC (Oct 2020). **Genome-wide meta-analysis reveals novel susceptibility loci for thyrotoxic periodic paralysis.** Plenary oral presentation at the 17th Asia-Oceania Congress of Endocrinology and the 8th Seoul International Congress of Endocrinology and Metabolism, Virtual (Online) Congress.
4. **Li GH**, Cheung CL, Au PC, Tan KC, Wong IC, Sham PC (Sep 2019). **Positive effects of low LDL-C and statins on bone mineral density: an integrated epidemiological observation analysis and Mendelian Randomization study.** Plenary poster presentation at the American Society of Bone and Mineral Research 2019 annual meeting, Orlando, Florida, USA.
5. **Li GH**, Cheung CL, Au PC, Tan KC, Wong IC, Sham PC (May 2019). **Positive effects of low LDL-C and statins on bone mineral density: an integrated epidemiological observation analysis and mendelian randomization study.** Poster presentation at the 20th Regional Osteoporosis Conference, Hong Kong.
6. **Li GH** and Cheung CL (April 2018). **Diabetes is associated with reduced bone microarchitecture: the Hong Kong Osteoporosis Study.** Oral presentation at the 6th Seoul International Congress of Endocrinology and Metabolism, Seoul, Korea. Awarded travel grant.