

CHOY Lok Yee, Lois

PERSONAL DATA

Full Name: CHOY Lok Yee, Lois
Office Address: Room 34141, Department of Chemical Pathology, The Chinese University of Hong Kong, Prince of Wales Hospital, 30-32 Ngan Shing Street, Shatin, New Territories, Hong Kong
Telephone No.: +852 3505 3031
E-mail Address: loischoy@cuhk.edu.hk

EDUCATION

MBBS	The University of Hong Kong	2014 - 2020
PhD student	The Chinese University of Hong Kong (Supervisor: Prof. Dennis Lo)	2021 - Present

PROFESSIONAL EXPERIENCE

Intern Doctor, Hospital Authority, Hong Kong; 07/2020 - 06/2021

Clinical Lecturer, Department of Chemical Pathology, The Chinese University of Hong Kong; 07/2021-Present

PROFESSIONAL SOCIETIES

Associate, The Hong Kong College of Pathologists, since 07/2021

Trainee, The Royal College of Pathologists of Australasia, since 07/2021

Trainee, Hong Kong Academy of Medicine, since 07/2021

Member, Hong Kong Society of Clinical Chemistry, since 08/2021

AWARDS AND HONORS

HKU Foundation Scholarship for Outstanding Students, 2014 – 2015

HKSAR Talent Development Scholarship in Innovation, Science and Technology, 2016

Innovation and Technology Scholarship, 2016

First Runner-up, Ares Leung Clinical Skills Prize in Emergency Medicine, 2017 – 2018

Chui's Student Excellence Scheme, 07/2018

Hong Kong College of Physicians Scholarship for Medical Students, 10/2018

Gold Medal, 2022 Prize for Best Original Research by Trainees, Hong Kong Academy of Medicine,

12/2022

Best Presentation Prize, The 20th Trainee Presentation Session of the Hong Kong College of Pathologists, 11/2024

SERVICE

Medical Scientist, Centre for Novostics, 07/2021- Present

Honorary Resident, Prince of Wales Hospital, 07/2021- Present

Invited virtual presentation on Liver and Renal Function Tests to secondary school students, International Pathology Day Workshop, Hong Kong College of Pathologists, 18/12/2021

Guest speaker on career pathways of clinician-scientists and promotion of biomedical research to secondary school students, Human Library 2022 (Virtual), St. Paul's Convent School, 18/07/2022

Guest speaker on secondary school life and medical career pathway introduction to primary 6 students and their parents, Information Day of St. Paul's Convent School, 05/11/2022

Exhibitor, Innotech Expo 2022, 12/2022

Guest speaker on biomedical career pathways and advice on further studies in Human Library 2023 (Virtual), St. Paul's Convent School, 29/06/2023

Member, Scholarships, Awards, Financial Aids and Grants Committee, S.H. Ho College, CUHK, 10/2023 - Present

Newsletter article contribution, Hong Kong Laureate Forum Newsletter (Title of article: Exploring the potential of long cell-free DNA in liquid biopsy (長片段游離 DNA: 癌症檢測新路向), 10/2023

Guest speaker on secondary school life and medical career pathway introduction to primary 6 students and their parents, Information Day of St. Paul's Convent School, 07/10/2023

Article contribution (Sharing on the Prize for Best Original Research by Trainees), Hong Kong College of Pathologists (HKCPath) Newsletter, 11/2023

Media exposure, Now TV (首屆香港桂冠論壇本月 13 日至 18 日舉行), 04/11/2023

Media exposure, Commercial Radio 1 (桂冠論壇 年輕醫生在實驗室做科研更可助成千上萬病人), 23/11/2023

Media exposure, RTHK Radio3 ('Off Campus' with Dr. Lois Choy: shared with the public my views about Innovation and Technology development in Hong Kong and encouraged young people to join the Innovation and Technology industry), 08/01/2024 to 12/01/2024

Media exposure, RTHK31 港台電視 31 《科學•創未來》 - 第三集《未來科學大獎獲獎者特輯 - 盧煜明·從生活的點滴 洞悉醫學未來》, 25/02/2024

Hosted a Lab Visit by students from Pui Ching Middle School at the Centre for Novostics,
11/04/2024

Guest speaker at the F.4 Careers Workshop, St. Paul's Convent School, 27/06/2024

Guest speaker at the Young STEAM Talent Award Presentation Ceremony (我的創科之路),
06/07/2024

Guest speaker at the Hong Kong Laureate Forum Alumni Reunion Party, 30/08/2024

Guest speaker on secondary school life and medical career pathway introduction to primary 6 students
and their parents, Information Day of St. Paul's Convent School, 19/10/2024

Member of InnoTech Scholarship Alumni Advisory Committee, Hong Kong Federation of Youth
Groups, Hong Kong, 22/05/2024 to 21/05/2025

PUBLICATIONS

Journal articles

1. **Choy LYL**, Yeo JM, Tse V, Chan SP, Tse G. Cardiac disease and arrhythmogenesis: Mechanistic insights from mouse models. *Int J Cardiol Heart Vasc.* 2016;12:1-10.
2. Ni M, Hui RWH, Li TK, Tam AHM, **Choy LYL**, Ma KKW, Cheung F, Leung GM. Augmented reality games as a new class of physical activity interventions? The impact of Pokémon Go use and gaming intensity on physical activity. *Games Health J.* 2019;8(1):1-6.
3. **Choy LYL**, Peng W, Jiang P, Cheng SH, Yu SCY, Shang S, Tse OYO, Wong J, Wong VWS, Wong GLH, Lam WKJ, Chan SL, Chiu RWK, Chan KCA, Lo YMD. Single-molecule sequencing enables long cell-free DNA detection and direct methylation analysis for cancer patients. *Clin Chem.* 2022;68(9):1151-1163.
4. Yu SCY, Deng J, Qiao R, Cheng SH, Peng W, Lau SL, **Choy LYL**, Leung TY, Wong J, Wong VWS, Wong GLH, Jiang P, Chiu RWK, Chan KCA, Lo YMD. Comparison of single molecule, real-time sequencing and nanopore sequencing for analysis of the size, end-motif and tissue-of-origin of long cell-free DNA in plasma. *Clin Chem.* 2023;69(2):168-179.
5. Yu SCY[^], **Choy LYL**[^], Lo YMD. 'Longing' for the next generation of liquid biopsy: The diagnostic potential of long cell-free DNA in oncology and prenatal testing. *Mol. Diag. Ther.* 2023;27(5): 563-571. ([^]**co-first author**)
6. Subramaniam SR, Lam FY, **Choy LYL**, Kwok JSS. Vascular Ehlers-Danlos syndrome: A null COL3A1 variant found in a patient with loin pain without marked cutaneous features. *Clin Case Rep.* 2024;12(2):e8517
7. Che H, Jiang P, **Choy LYL**, Cheng SH, Peng W, Chan RWY, Liu J, Zhou Q, Lam WKJ, Yu SCY, Lau SL, Leung TY, Wong J, Wong VWS, Wong GLH, Chan SL, Chan KCA, Lo YMD. Genomic origin, fragmentomics, and transcriptional properties of long cell-free DNA molecules in human plasma. *Genome Res.* 2024;34(2):189-200.

8. Cheng JYK, Subramaniam SR, Yu SCY, **Choy LYL**, Kwok JSS. Dopamine infusion at typical infusion rates does not cause interference on plasma creatinine assays. *Pract Lab Med.* 2024;40:e00399
9. Zhu G, Jiang P, Li X, Peng W, **Choy LYL**, Yu SCY, Zhou Q, Ma ML, Kang G, Bai J, Qiao R, Deng CXS, Ding SC, Lam WKJ, Chan SL, Lau SL, Leung TY, Wong J, Chan KCA, Lo YMD. Methylation-associated nucleosomal patterns of cell-free DNA in cancer patients and pregnant women. *Clin Chem.* 2024; hvae118, <https://doi.org/10.1093/clinchem/hvae118>
10. Bai J, Jiang P, Ji L, Lam WKJ, Zhou Q, Ma ML, Ding SC, Ramakrishnan, Wan CW, Yang TC, Yukawa M, Chan RWY, Qiao R, Yu SCY, **Choy LYL**, Shi Y, Wang Z, Tam THC, Law MF, Wong RSM, Wong J, Chan SL, Wong GLH, Wong VWS, Chan KCA, Lo YMD. Histone modifications of circulating nucleosomes are associated with changes in cell-free DNA fragmentation patterns. *Proc Natl Acad Sci U S A* 2024 Oct 15;121 42:e2404058121. Epub 20241009 as doi: 10.1073/pnas.2404058121.
11. Malki Y, Kang G, Lam WKJ, Zhou Q, Cheng SH, Cheung PPH, Bai J, Chan ML, Lee CT, Peng W, Zhang Y, Gai W, Wong WSW, Ma MJL, Li W, Xu X, Gao Z, Tse IOL, Shang H, **Choy LYL**, Jiang P, Chan KCA, Lo YMD. Analysis of a cell-free DNA-based cancer screening cohort links fragmentomic profiles, nuclease levels, and plasma DNA concentrations. *Genome Res* 2025 Jan 22;35 1:31-42. Epub 20250122 as doi: 10.1101/gr.279667.124.

Book Chapters

1. **Choy LYL***, Lo YMD. Liquid biopsies. *Vogel and Motulsky's Human Genetics: Problems and Approaches.*(accepted for publication on 21 March 2024) (***First and corresponding author**)

OTHERS

Mentor for a high school student Leo Chen during his attachment at the Centre for Novostics and Department of Chemical Pathology, CUHK, 07/2023

Mentor for a high school student Justin Leung during his attachment at the Centre for Novostics and Department of Chemical Pathology, CUHK, 07/2024

Mentor for a high school student Tony Lam during his attachment at the Centre for Novostics and Department of Chemical Pathology, CUHK, 07/2024

Mentor for a university student Nausicaa Ng during her attachment at the Centre for Novostics and Department of Chemical Pathology, CUHK, 09/2024

Mentor for a high school student Adam Ho during his attachment at the Centre for Novostics and Department of Chemical Pathology, CUHK, 08/2024 to 09/2024