Curriculum Vitae

Name	**K.C. Allen Chan**	
Current Position & Affiliation	**Professor of Chemical Pathology, The Chinese University of Hong Kong**	
Country	**Hong Kong**	

Educational Background and Professional Qualifications

Bachelor of Medicine and Bachelor of Surgery (University of Hong Kong)
Doctor of Philosophy in Chemical Pathology (Chinese University of Hong Kong)
Fellow of the Royal College of Pathologists of Australasia
Fellow of the Hong Kong College of Pathologists

Research Highlights

Professor Chan is a Chair Professor of Chemical Pathology and Chief of Service at The Chinese University of Hong Kong. His main research interest is the development of new diagnostic approaches based on circulating DNA analysis, covering applications in cancer detection and prenatal testing.

Together with Professor Dennis Lo and Professor Rossa Chiu, Professor Chan invented the noninvasive prenatal Down syndrome test. This test had rapidly adopted globally since its introduction in 2008. In 2020, over 4 millions of tests are being performed in over 50 countries and has led to a huge reduction in the number of amniocentesis and chorionic villus sampling.

Using nasopharyngeal cancer as a model, Professor Chan carried out the first large-scale prospective study of using “liquid biopsy” to screen for early asymptomatic cancer. He demonstrated that the detection of cancer-derived plasma Epstein-Barr virus DNA could lead to the identification of nasopharyngeal carcinoma at significantly earlier stages compared with patients without undergoing screening. This work was selected as one of the ten notable article published in New England Journal of Medicine in 2017. He received the 2018 Annual Achievement Award from the Chinese Society of Clinical Oncology (CSCO).

Professor Chan is an inventor of 75 patents in molecular diagnostics, including the methods for the noninvasive detection of Down syndrome through the analysis of the blood plasma of pregnant women and a universal cancer test. He is a co-founder of 4 biotechnology companies.

Main Scientific Publications

1. **Chan KCA**, Woo JKS, King A, Zee BCY, Lam WKJ, Chan SL, Chu SWI, Mak C, Tse IOL, Leung SYM, Chan G, Hui EP, Ma BBY, Chiu RWK, Leung SF, van Hasselt AC, Chan ATC, Lo YMD. Analysis of Plasma Epstein-Barr Virus DNA to Screen for Nasopharyngeal Cancer. ***N Engl J Med*** 2017;377:513-522.
2. **Chan KCA**, Chu SWI, Lo YMD. Ambient Temperature and Screening for Nasopharyngeal Cancer. ***N Engl J Med*** 2018;378:962-963.
3. Lam WKJ*, Jiang P*, **Chan KCA***, Cheng SH, Zhang H, Peng W, Tse OYO, Tong YK, Gai W, Zee BCY, Ma BBY, Hui EP, Chan ATC, Woo JKS, Chiu RWK, Lo YMD. Sequencing-based counting and size profiling of plasma Epstein-Barr virus DNA enhance population screening of nasopharyngeal carcinoma. ***Proc Natl Acad Sci U S A*** 2018;115:E5115-24. (co-first authors)
4. King AD, Woo JKS, Ai QY, Chan JSM, Lam WKJ, Tse IOL, Bhatia KS, Zee BCY, Hui EP, Ma BBY, Chiu RWK, van Hasselt AC, Chan ATC, Lo YMD, **Chan KCA**. Complementary roles of MRI and endoscopic examination in the early detection of nasopharyngeal carcinoma. ***Ann Oncol.*** 2019;30(6):977-982.
5. Lam WKJ, Jiang P, **Chan KCA**, Peng W, Shang H, Heung MMS, Cheng SH, Zhang H, Tse OYO, Raghupathy R, Ma BBY, Hui EP, Chan ATC, Woo JKS, Chiu RWK, Lo YMD. Methylation analysis of plasma DNA informs etiologies of Epstein-Barr virus-associated diseases. ***Nat Commun.*** 2019 Jul 22;10(1):3256.