

林偉棋

JACKY LAM



Principal Investigator

Jacky Lam



Team members

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Research Progress Summary

Jacky Lam, together with Allen Chan and his team, have continued their prospective screening study of nasopharyngeal carcinoma (NPC) which was first launched in 2013. The study has established the screening utility of plasma Epstein-Barr virus (EBV) DNA for NPC. The study is now in the second phase, which all the participants would be offered re-screening. Jacky and the team have discovered the differentiating molecular characteristics of plasma EBV DNA between NPC and non-NPC subjects, including quantitative, size and methylation characteristics. The discoveries have led to the development of novel sequencing-based assays that have more superior performance than the conventional

PCR-based assay for early detection of NPC. In addition, the team has derived a risk score based on the EBV single nucleotide variant profile for NPC prediction. The team continues to optimise the sequencing-based assay for clinical application, in terms of both accuracy and cost-effectiveness.

In November 2021, Jacky and Allen have organised the virtual Nasopharyngeal Cancer Screening Conference 2021 aiming to propose recommendations for NPC screening. In the 3-day conference, over 200 participants from all over the world have joined the conference and shared their opinions.

02 MOLECULAR DIAGNOSTICS

Plasma Nucleic Acids Research

Research Awards and Recognitions

Member's Name	Details	
	Award	Organisation
Jacky Lam	Postgraduate Research Output Award 2020	The Chinese University of Hong Kong

Reviewer of Journal / Conference

Member's Name	Details	
	Role	Journal / Conference
Jacky Lam	Organising Committee Member	Nasopharyngeal Cancer Screening Conference
		Breast Cancer Conference 2021
	Reviewer	Clinical Chemistry

Grants and Consultancy

Name	Project Title	Funding Source	Start Date (dd/mm/yyyy)	End Date (dd/mm/yyyy)	Amount (HK\$)
Jacky Lam	Investigating the Molecular Characteristics of Epstein-Barr Virus DNA in Plasma to Enhance Surveillance of Recurrence of Nasopharyngeal Carcinoma	Research Grants Council – Early Career Scheme	01/09/2021	31/08/2023	598,491

Publications

A. Journal Papers

1. Zhou Z, Cheng SH, Ding SC, Heung MMS, Xie T, Cheng THT, Lam WKJ, Peng W, Teoh JYC, Chiu PKF, Ng CF, Jiang P, Chan KCA, Chiu RWK, Lo YMD. Jagged ends of urinary cell-free DNA: Characterization and feasibility assessment in bladder cancer detection. *Clinical Chemistry*. 2021;67(4):621-630. doi:10.1093/clinchem/hvaa325.
2. Fung SYH, Chan KCA, Wong EWY, Ng CWK, Cho R, Yeung ZWC, Lam JWK, Chan JYK. Droplet digital PCR of tumor suppressor gene methylation in serial oral rinses of patients with head and neck squamous cell carcinoma. *Head and Neck*. 2021;43(6):1812-1822. doi:10.1002/hed.26647.



Jacky Lam and volunteers of the NPC Screening Programme.

Source: Jacky Lam