

MOLECULAR DIAGNOSTICS

(Single-cell Genomics)



Principal Investigator

Dr. Jason Tsang

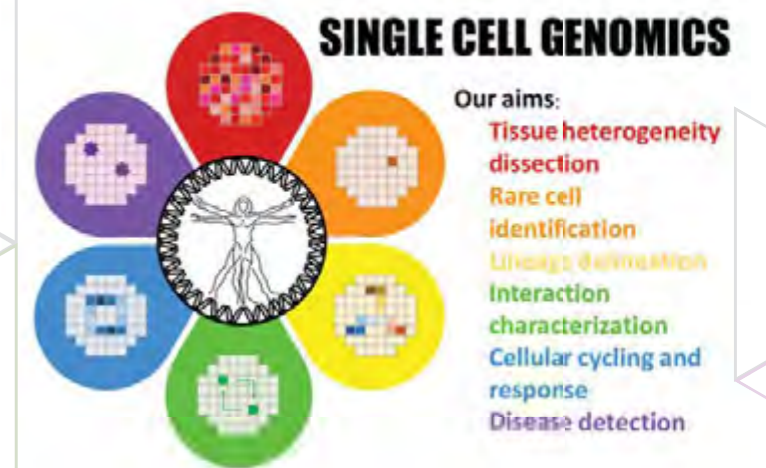
Team

Single-cell Genomics

Research Progress Summary

The team collaborated with international researchers to dissect the progenitor compartment of a special type of immune cells, innate lymphoid cells (ILCs), in the mouse bone marrow using single-cell transcriptomic technology. They looked at the gene expression profiles of hundreds of individual ILC, and successfully identified a novel specific marker for the ILC progenitor compartment, which allows rapid isolation of progenitors and potential therapeutic manipulations in the future.

The team is currently exploring new single-cell transcriptomic technology platforms and new clinical applications of this revolutionary technology.



Graphical abstract of the aims of our group
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Recognitions

Awards and Fellowships

Member's Full Name	Details
Jason Tsang	Faculty Innovation Award 2016 Scheme B

Grants and Consultancy

Full Name of PI	Project Title	Funding Source	Start Date (dd/mm/yyyy)	End Date (dd/mm/yyyy)	Amount (HK\$)
Jason Tsang	Application of Single-cell Transcriptomic Technology for Noninvasive Monitoring of Organ Well-being	Faculty of Medicine, CUHK – Faculty Innovation Award	01/10/2016	31/09/2019	750,000

Publications

A. Journal Papers

1. Yu Y, Tsang JC, Wang C, Clare S, Wang J, Chen X, Brandt C, Kane L, Campos LS, Lu L, Belz GT, McKenzie AN, Teichmann SA, Dougan G, Liu P. Single-cell RNA-seq identifies a PD-1hi ILC progenitor and defines its development pathway. *Nature*. 2016; 539(7627):102-6.