Lung

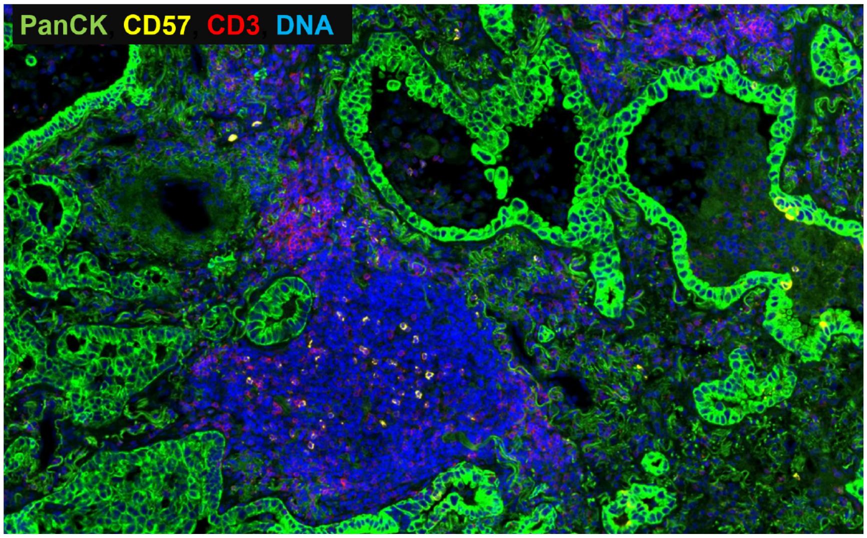
Lung Cancer

Study Purpose

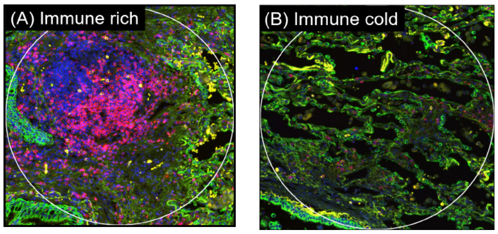
To investigate the immune response to immunotherapy and understand the transcriptional profiles in lung cancer tissue, geometric regions of interest (ROIs) with different amounts of immune cells presence were profiled using the GeoMx Human Whole Transcriptome Atlas. Transcriptional differences between immunotherapy responders and non-responders were explored.

Study Summary

Sample Type	FFPE
Species	Human
AOI* Strategy	Geometric
Assay	Human Whole Transcriptome Atlas
Morphology Markers	Pan-Cytokeratin (PanCK), CD57#, CD3, DNA
Targets Detected	16,781 targets
Application	Biomarker discovery



Segmentation Strategy



Legend

PanCK, CD57, and CD3 antibodies were used to identify epithelial cells, natural killer cells, and T cells. Regions of interest were placed in immune rich areas (A, CD3 high) and immune cold areas (B, CD3 low) based on fluorescent staining.

---

*AOI = Area of Illumination; LOQ=Limit of Quantitation

#Alexa Fluor® 594 anti-human CD57 Antibody: Biolegend Cat # 359626

Acknowledgement: We sincerely thank Dr. Joe Yeong from Singapore General Hospital and Institute of Molecular and Cell Biology, A*STAR, for sharing these images.

For more information, please visit https://nanostring.com/geomx-morphology-markers/