

Supplementary Table 1. Comparison methods between primary tumours and brain metastases.

Lung adenocarcinoma		Normal	Primary tumour	Brain metastasis	Brain metastasis with chemotherapy
chemotherapy		No	No	No	Yes
Intertumoural heterogeneity	DEGs		Enrichment analysis (BP, CC, MF, KEGG) Survival analysis		
	GSEA (Table S3)	Control group	Angiogenesis etc.	Epithelial mesenchymal transition etc.	Oxidative phosphorylation etc.
Intratumoural heterogeneity	DEGs	None	Enrichment analysis in subgroups		
	GSEA	None	Gene sets analysis in subgroups		
	Monocle	None	Single cell trajectories between subgroups		