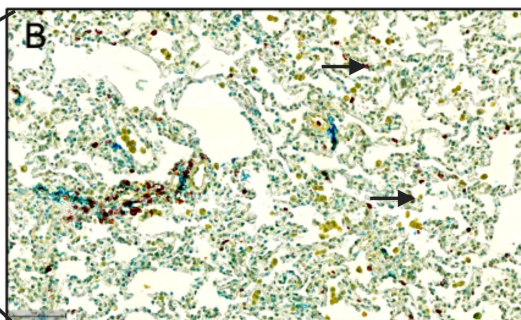
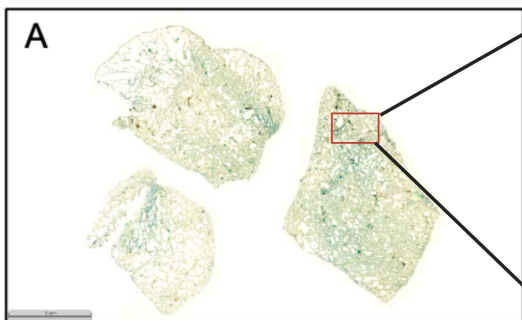
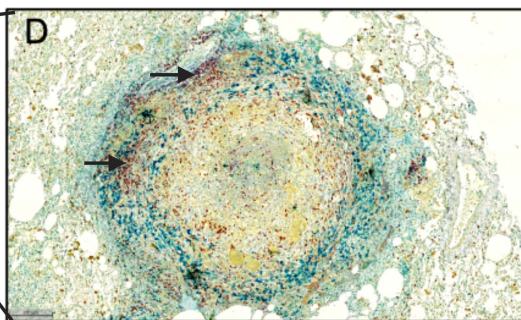
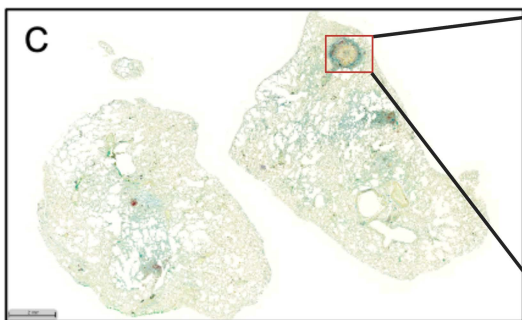


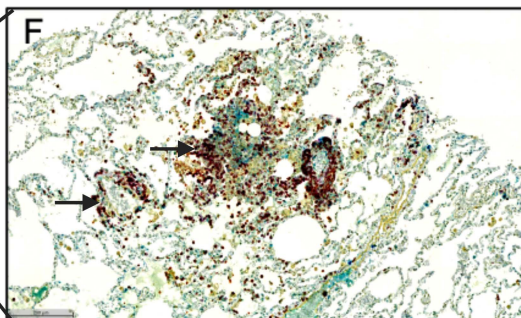
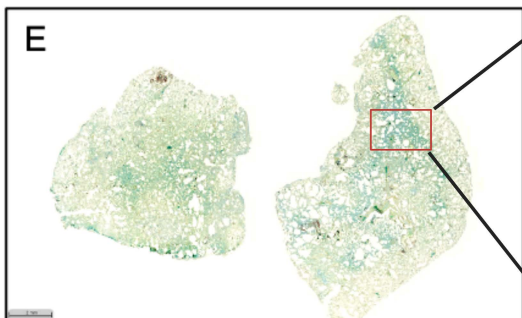
GP50



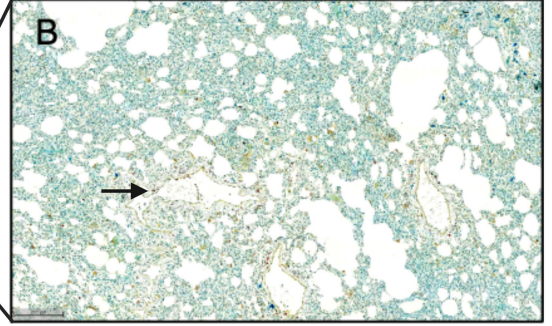
HV02



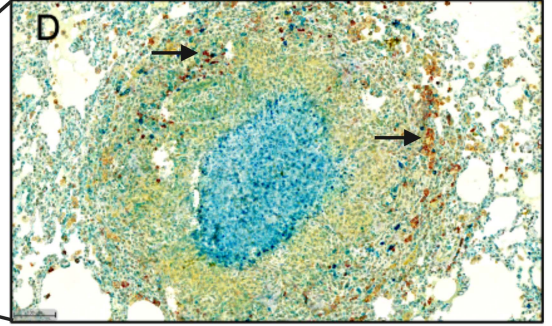
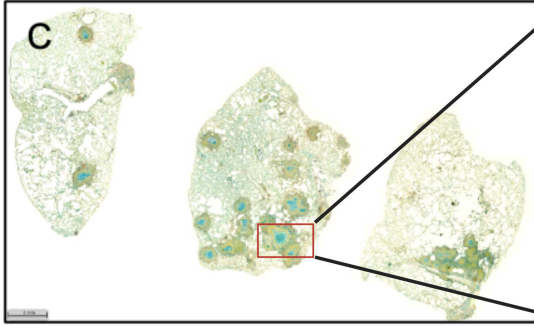
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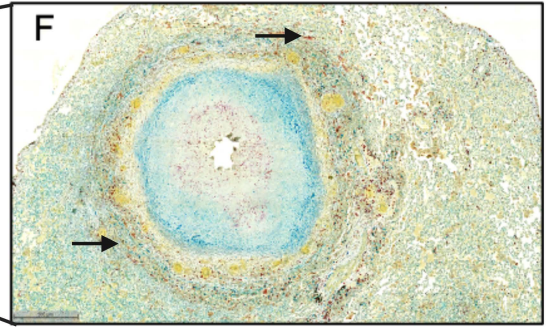
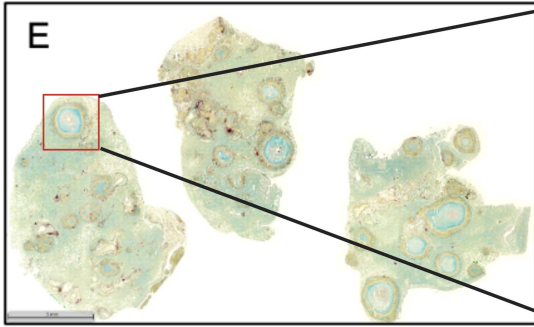
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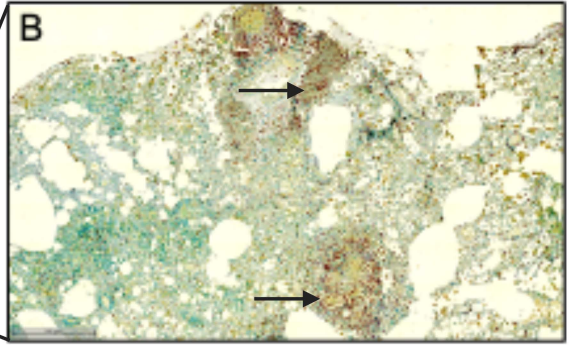
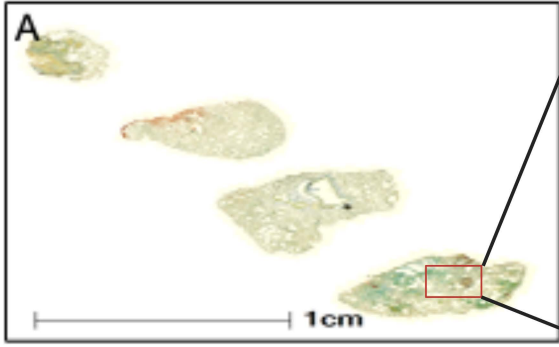
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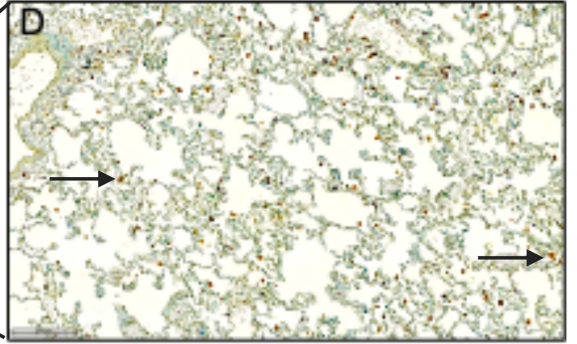
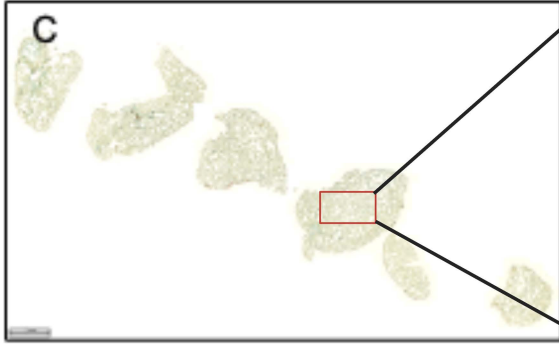
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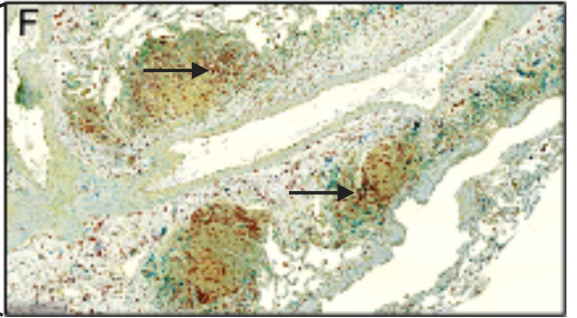
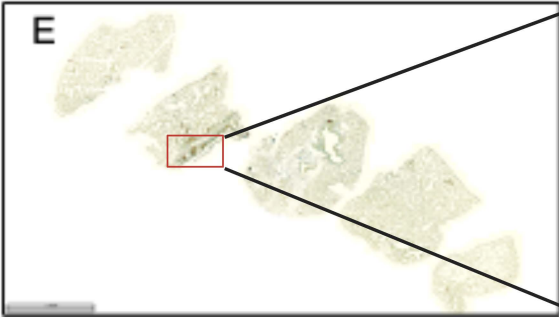
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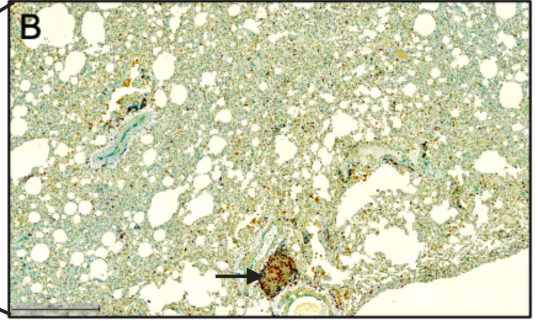
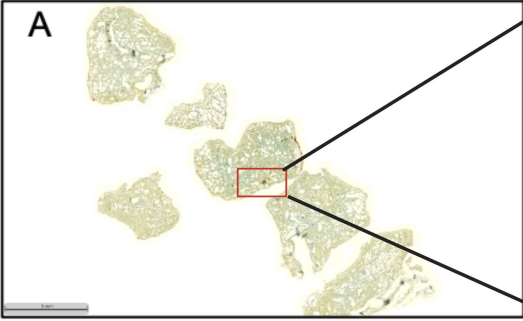
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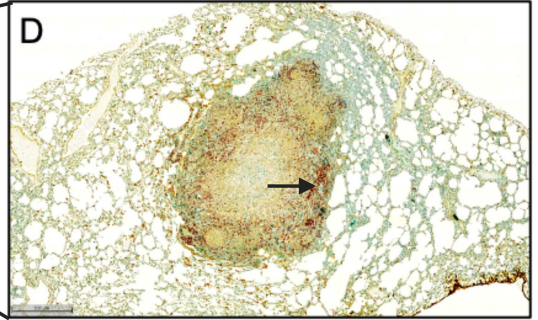
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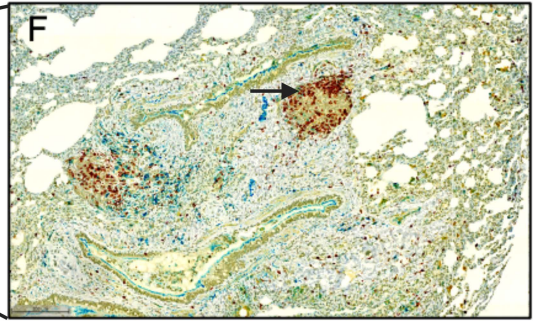
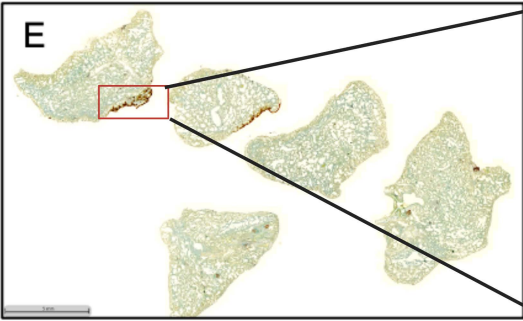
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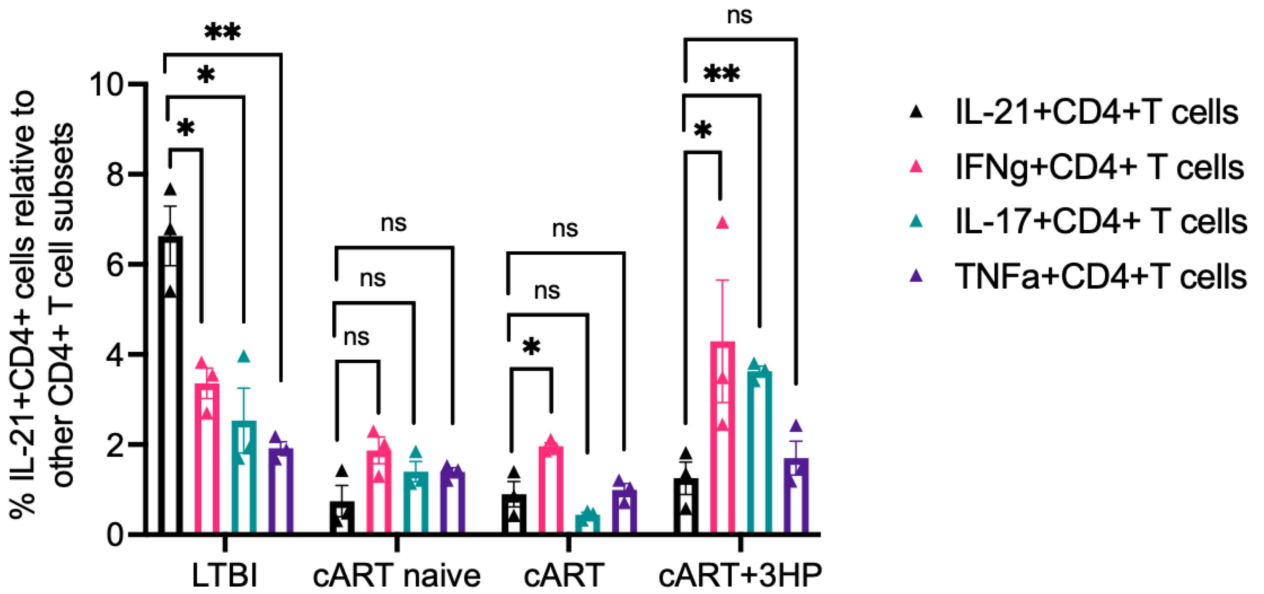


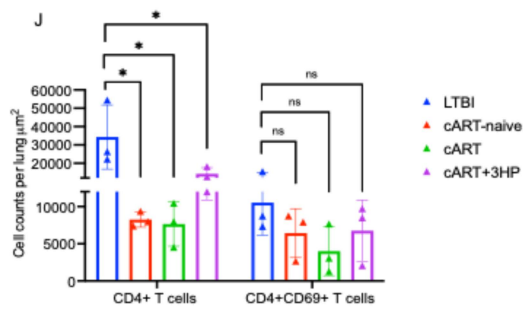
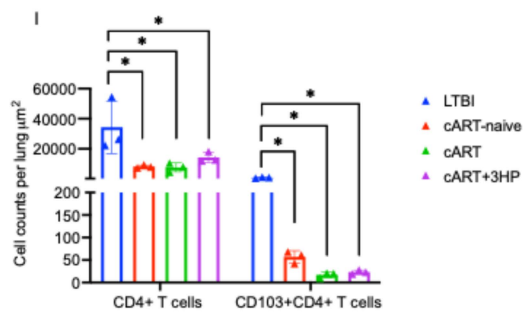
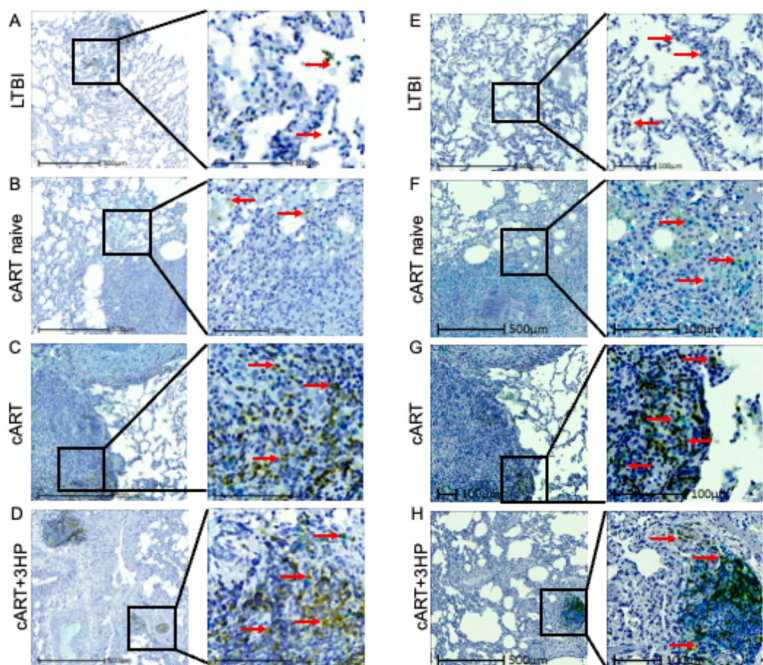
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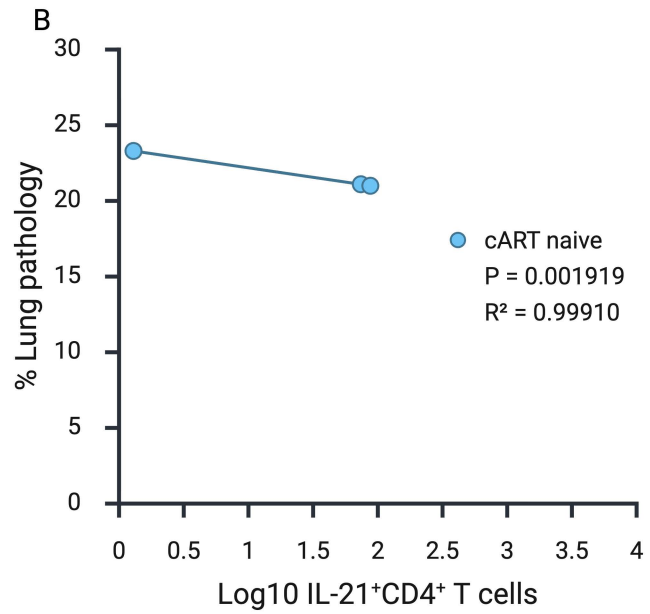
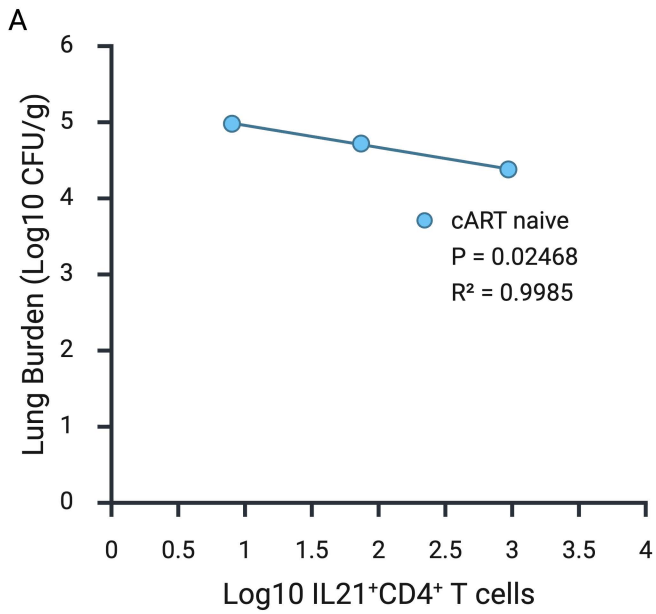


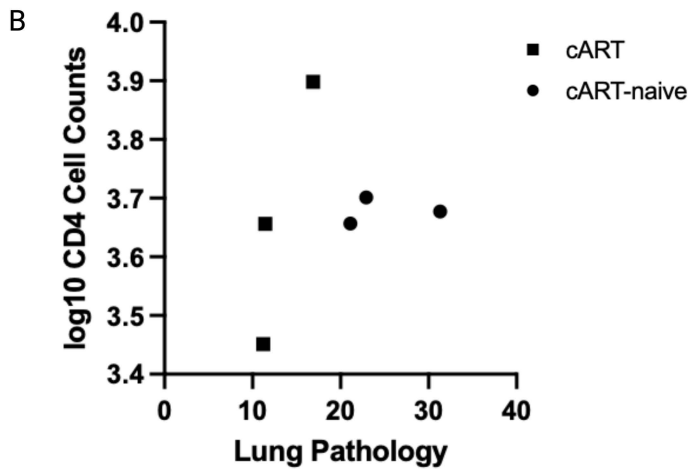
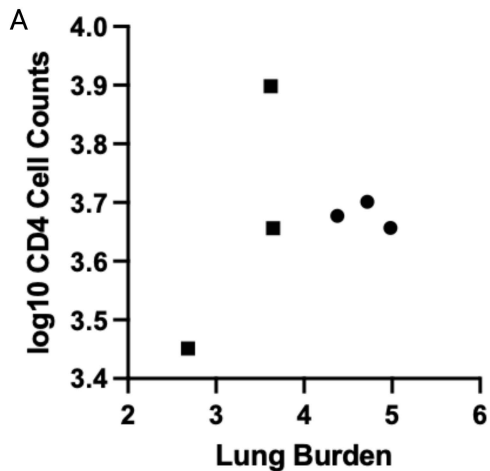
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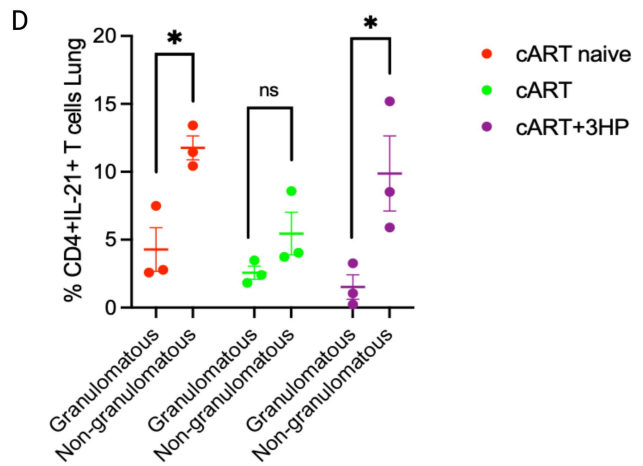
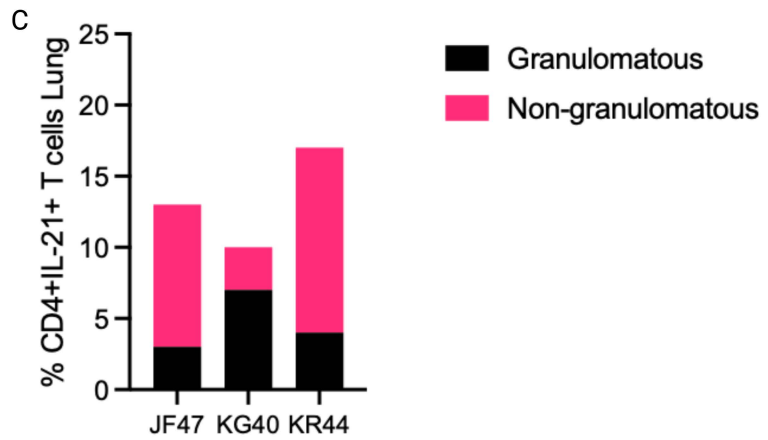
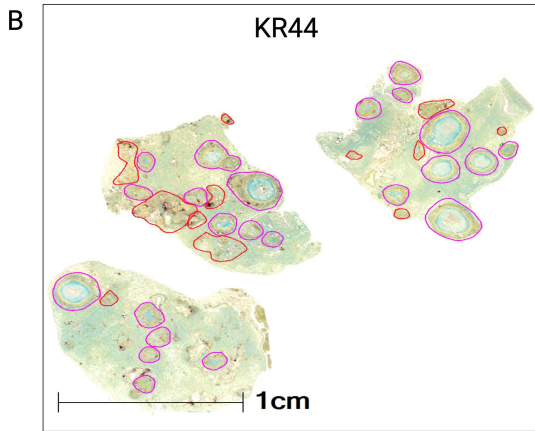
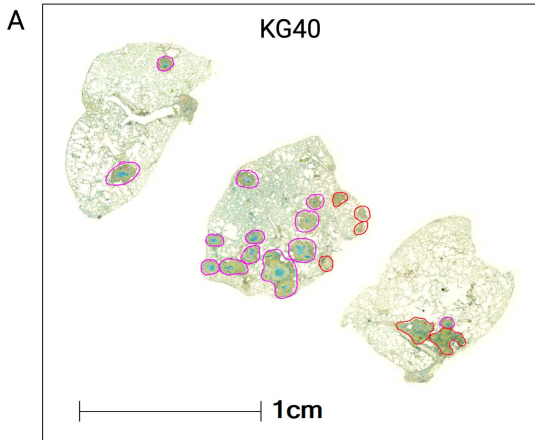






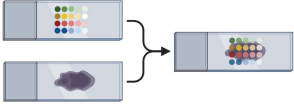
	Lung Burden vs. cART-naive	Lung Burden vs. cART
Pearson r		
r	-0.3906	0.8261
95% confidence interval		
R squared	0.1525	0.6824
P value		
P (one-tailed)	0.3723	0.1906
P value summary	ns	ns
Significant? (alpha = 0.05)	No	No

	Lung Pathology vs. cART-naive	Lung Pathology vs. cART
Pearson r		
r	0.1203	0.9048
95% confidence interval		
R squared	0.01446	0.8187
P value		
P (one-tailed)	0.4616	0.14
P value summary	ns	ns
Significant? (alpha = 0.05)	No	No

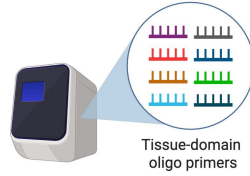


A Tissue analysis

Grid tissue section on oligo(dT) primers slide

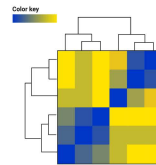


B cDNA synthesis



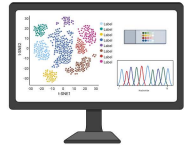
C Gene expression

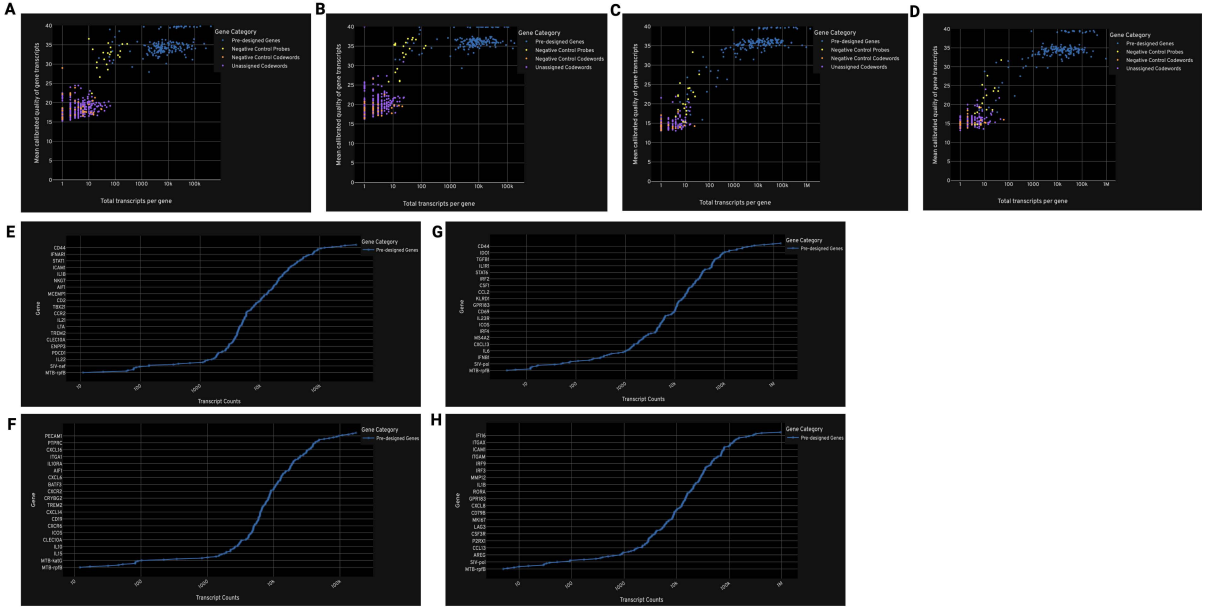
Spatially-resolved genes encoded via oligo tag



D Data analysis

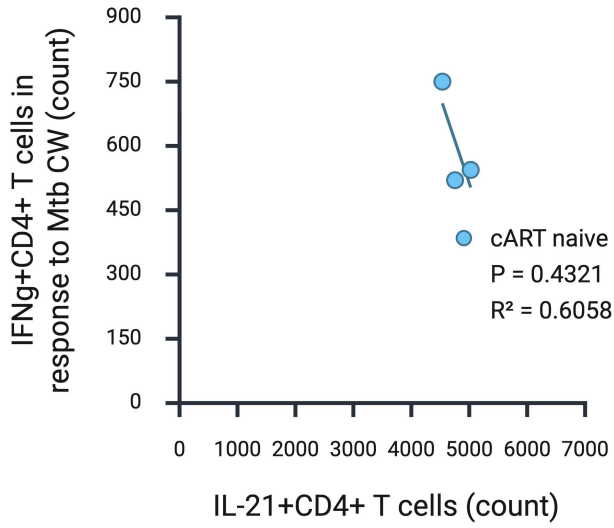
Gene clusters association to tissue domains



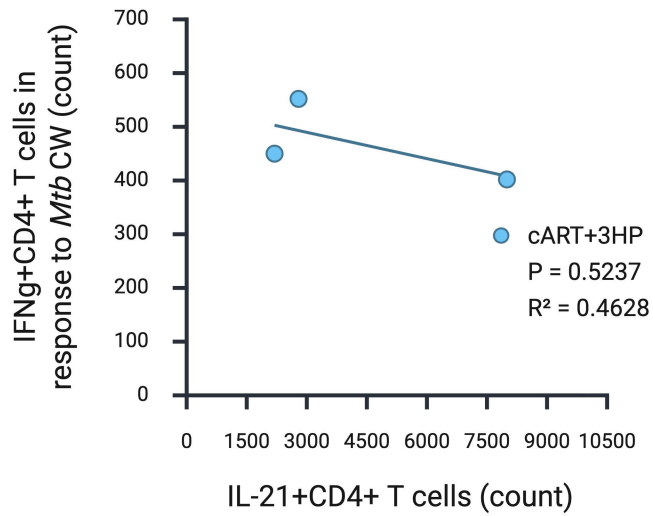


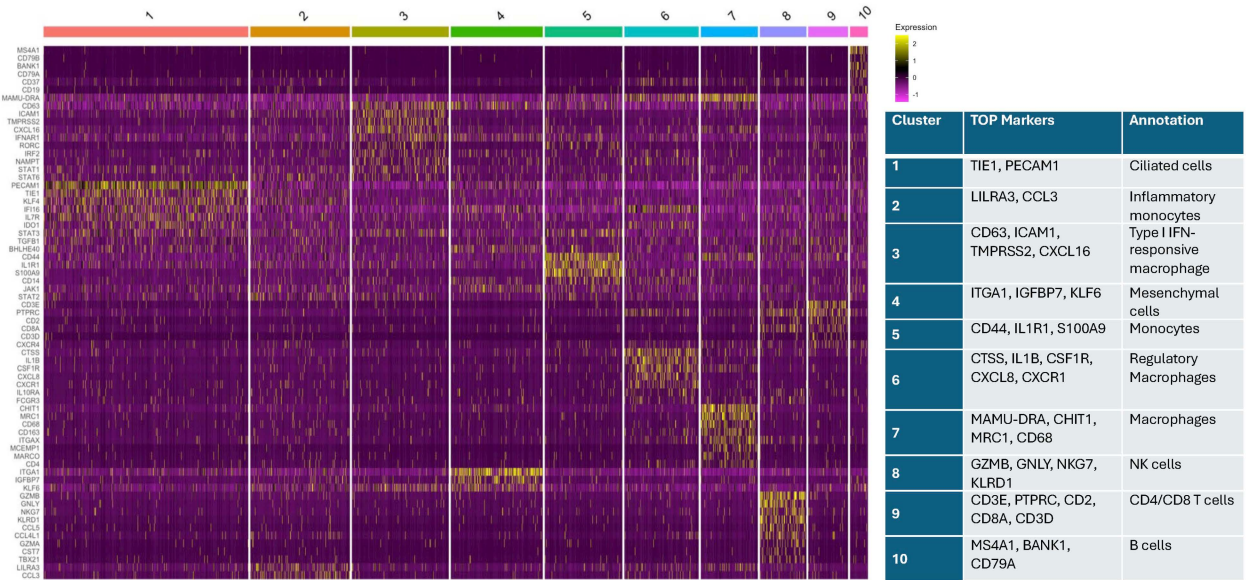
	LTBI	cART naïve	cART	cART+3HP
No. of cells detected	347,255	216,156	147,895	118,859
Median transcripts per cell	8	9	24	35
Median genes per cell	6	7	14	18
High quality gene transcripts	95.20%	95.50%	92.00%	87.50%
Total high quality decoded transcripts	4,000,617	2,919,184	8,215,688	7,219,547
Nuclear transcripts per 100 μm^2	25.1	30.2	84.5	113.8
Thickness of high quality decoded transcripts (in μm)	12.741	10.857	6.769	7.513
Cellular transcripts per 100 μm^2	16	18.6	76	89.6

A

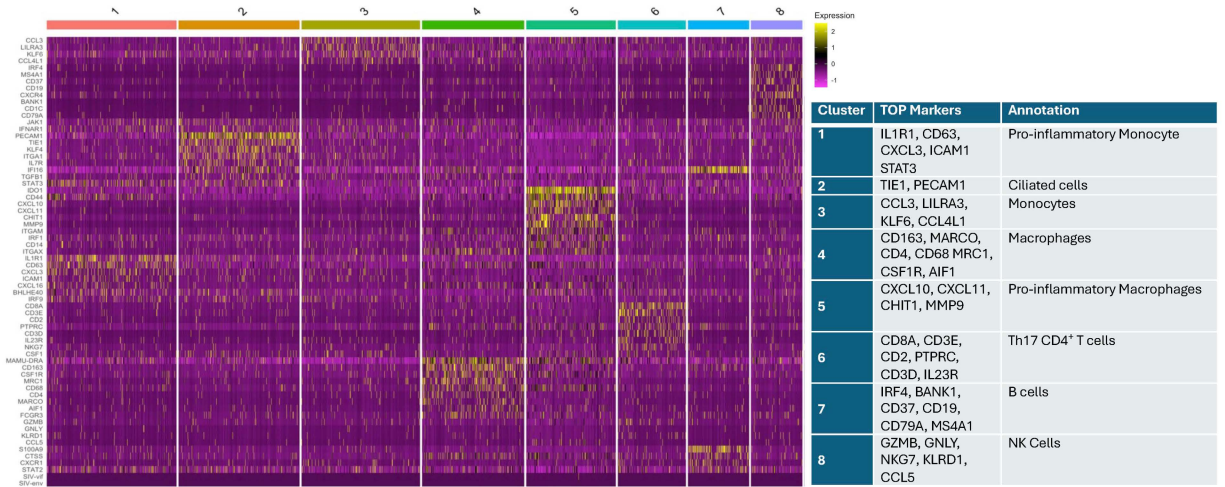


B

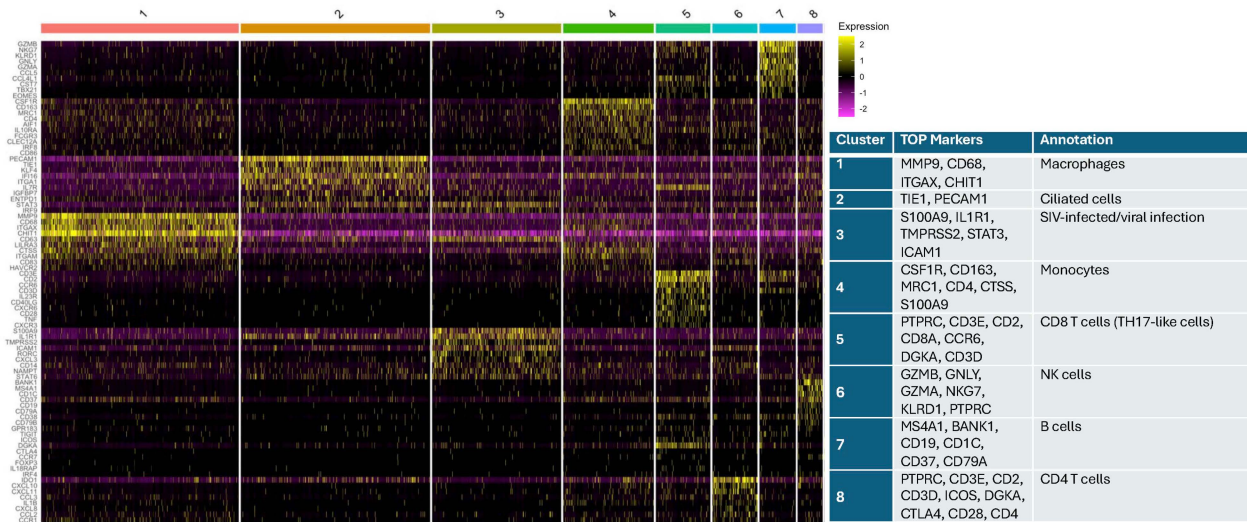




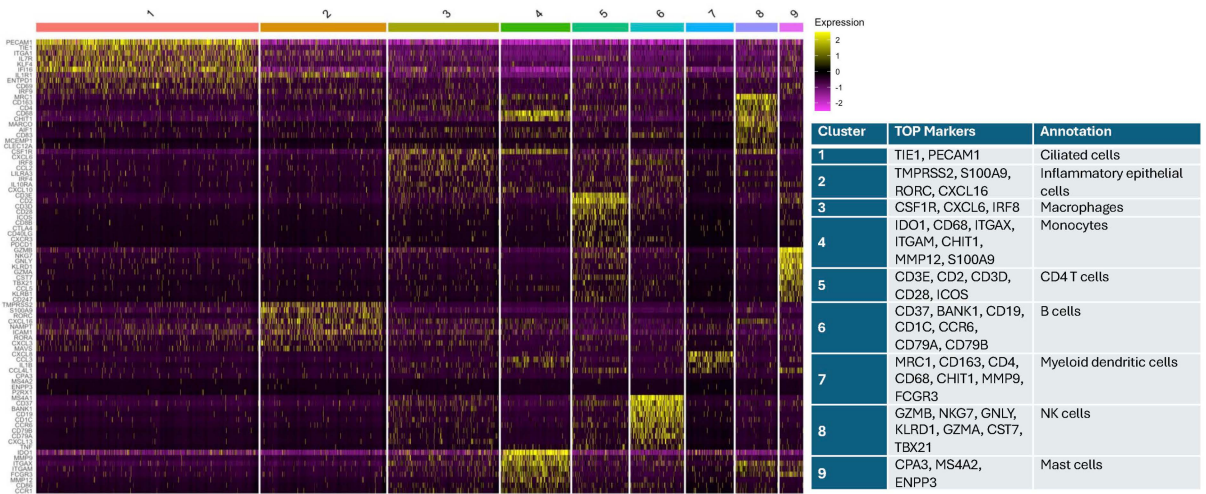
Heatmap of Top Marker Gene Expression by Cluster: LTBI



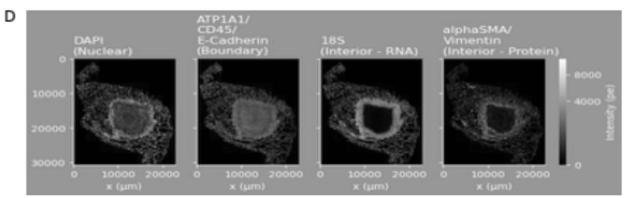
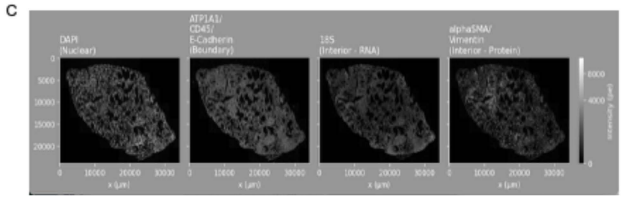
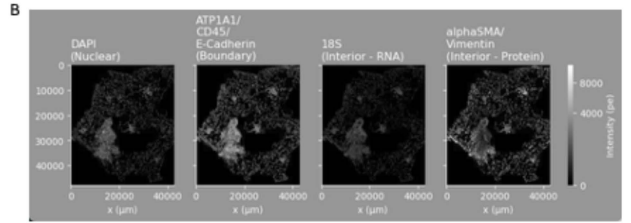
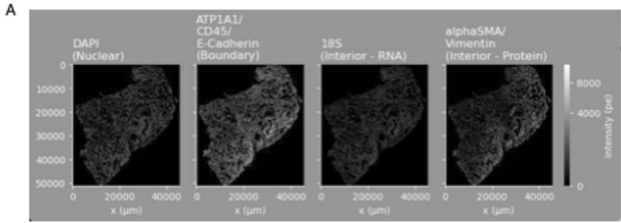
Heatmap of Top Marker Gene Expression by Cluster: cART naive



Heatmap of Top Marker Gene Expression by Cluster: cART



Heatmap of Top Marker Gene Expression by Cluster: cART+3HP



Sample ID	Group	Description
HV02	LTBI	Baseline (2 regions)
KG40	LTBI + SIV	Untreated (2 regions)
33343	LTBI + SIV + cART	cART treated (3 regions)
41882	LTBI + SIV + cART + 3HP	cART treated + TB therapy (4 regions)

Cell Type	Reference Markers
Macrophage	CD63, MRC1(CD206), CD44, PTPRC(CD45), CD163, CD83, CD14, MND4, FCGR3(CD16)
Monocyte	MRC1(CD206), CD44, PTPRC(CD45), CD83, ITGAX, CSF3R(CD114), NAMPT, S100A9
CD4 T cells	PTPRC(CD45), CD44, CD3D, CD69, IL23R, CD3E, CD4
CD8 T cells	PTPRC(CD45), CD44, CD3D, CD8B, CD69, CD8A, CD3E
NK cells	PTPRC(CD45), CD44, NCAM1(CD56), NKG2A
B cells	PTPRC(CD45), CD44, CD79B, CD69, CD19, CD79A
Mast cells	ENPP3(CD203c), CD44, KIT(CD117), CD69, PTPRC(CD45)
Myeloid dendritic cells	ITGAM(CD11b), PTPRC(CD45), CDC1
Ciliated cells	TIE1 (CD31), PECAM1 (CD31)

Animal ID	Group	Sex	Age	Therapy initiation	MAMU Type		
					<i>A*01</i>	<i>B*08</i>	<i>B*17</i>
33343	cART treated	Female	6.30	2 wks post-SIV	Negative	Negative	Positive
33994	cART treated	Male	7.00	2 wks post-SIV	Negative	Negative	Positive
34741	cART treated	Female	5.30	2 wks post-SIV	Negative	Negative	Negative
35974	cART treated	Female	4.40	2 wks post-SIV	Negative	Negative	Positive
34561	cART+3HP treated	Female	7.90	2 wks post-SIV	Negative	Negative	Negative
41898	cART+3HP treated	Male	4.93	2 wks post-SIV	Positive	Negative	Negative
41901	cART+3HP treated	Male	4.88	2 wks post-SIV	Negative	Negative	Negative
41882	cART+3HP treated	Male	4.132	2 wks post-SIV	Negative	Negative	Negative
41876	cART+3HP treated	Male	5.102	2 wks post-SIV	Negative	Negative	Negative
41879	cART+3HP treated	Male	5.61	2 wks post-SIV	Negative	Negative	Negative
KR44	cART naïve	Male	5.50	No cART	Positive	Negative	Negative
LC88	cART naïve	Male	4.10	No cART	Negative	Negative	Negative
JH07	cART naïve	Male	7.32	No cART	Negative	Negative	Negative
JF23	cART naïve	Male	7.26	No cART	Positive	Negative	Negative
KG40	cART naïve	Male	5.51	No cART	Negative	Negative	Negative
IP88	cART naïve	Male	7.05	No cART	Positive	Negative	Negative
JI68	cART naïve	Male	6.06	No cART	Negative	Negative	Negative
JE48	cART naïve	Male	6.33	No cART	Negative	Negative	Negative
GP50	LTBI	Male	11.18	No cART	Positive	Negative	Negative
JF47	LTBI	Male	7.32	No cART	Negative	Negative	Negative
HV02	LTBI	Male	9.34	No cART	Negative	Negative	Negative
JD72	LTBI	Male	7.38	No cART	Negative	Negative	Negative

Lung	Tissue Area (μm^2)
LTBI	233556800
	239154448
	273528896
cART naïve	228770464
	166268784
	153978912
cART	170309040
	107882232
	90442016
cART+3HP	153487856
	139960048
	205737744