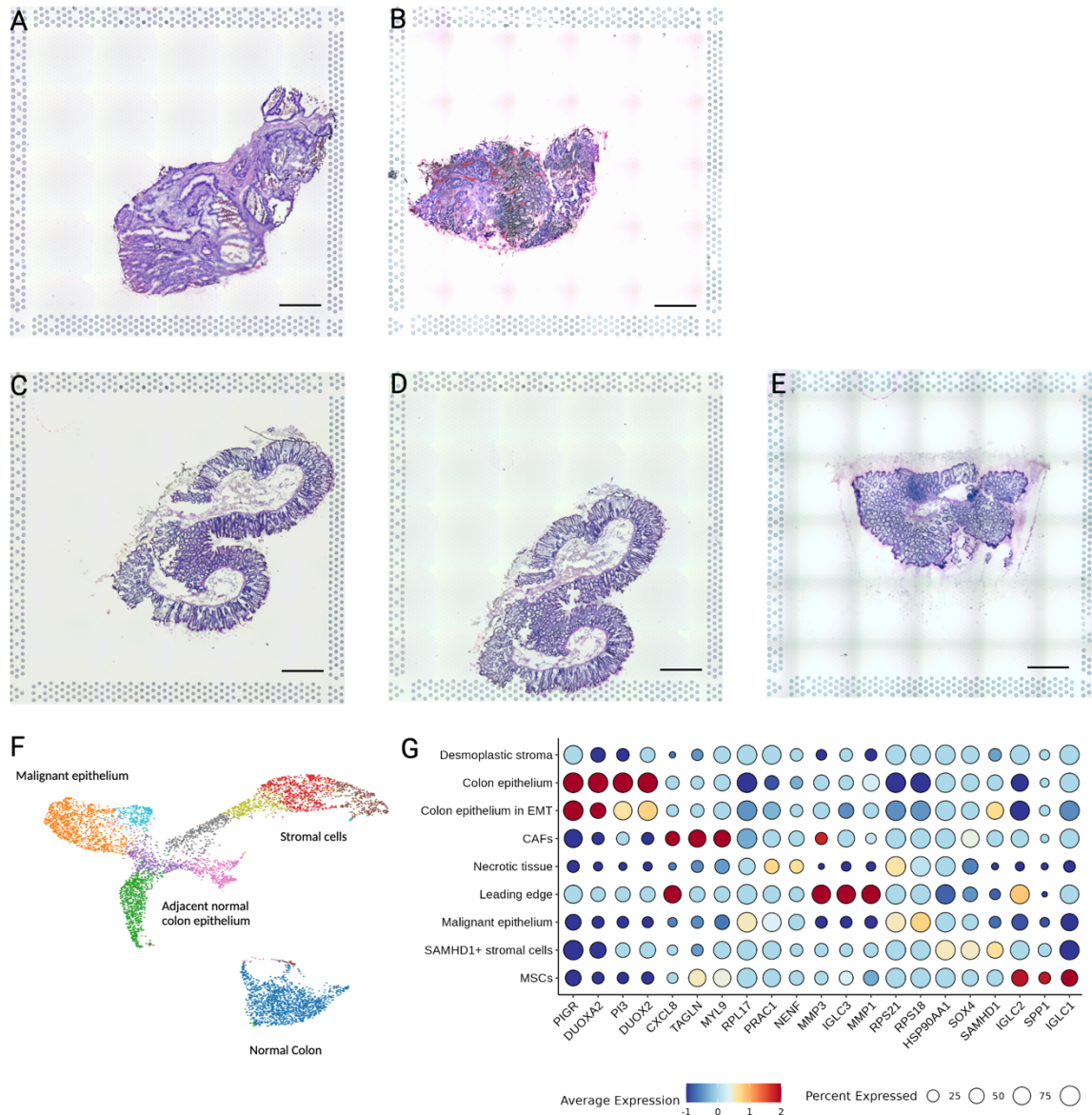
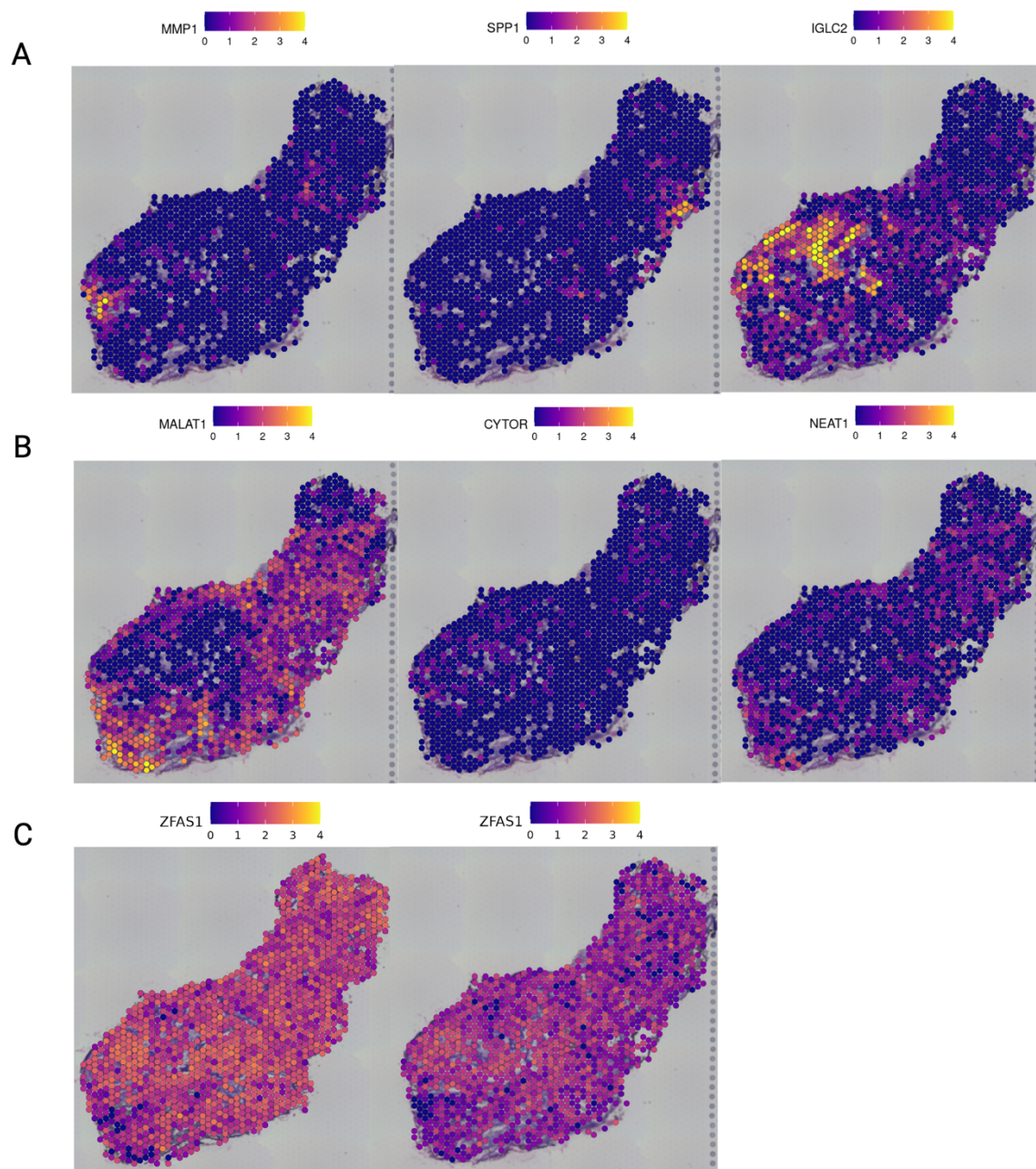


Supplementary Figures

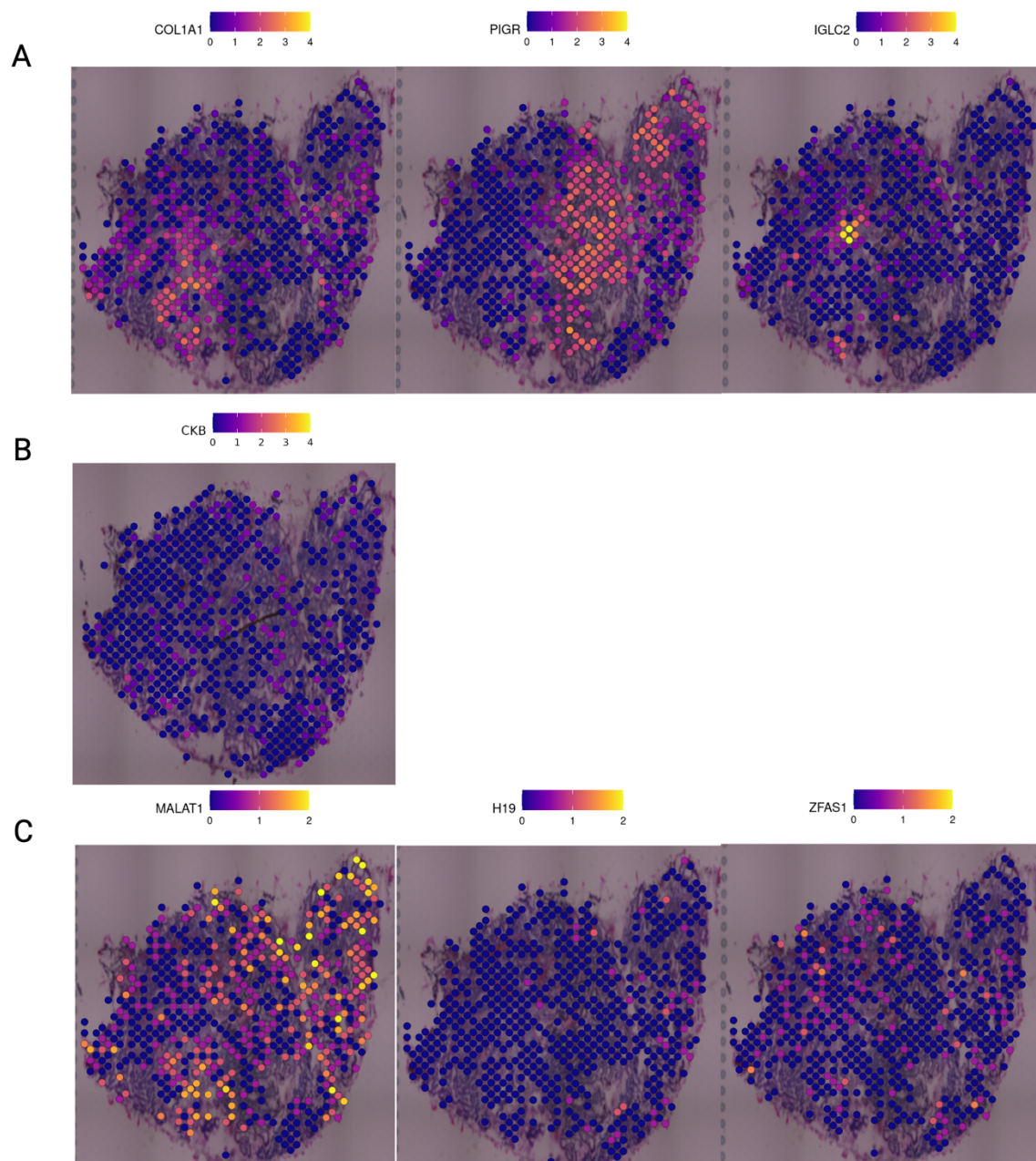


Supplementary Figure 1: **A)** H&E staining of Patient 1 tumour replicate 2. **B)** H&E staining of Patient 2 tumour replicate 2. **C)** H&E staining of Patient 1 normal colon (resection ends) replicate 1. **D)** H&E staining of Patient 1 normal colon (resection ends) replicate 2. **E)** H&E staining of Patient 2 normal colon (resection ends). **F)** UMAP projection of aggregated data from all 8 tissues from Visium experiments. **G)** Bubble plot showing expression signatures from cell type classification analysis. Scale bar = 1000 μ m. Image created with Biorender.com.

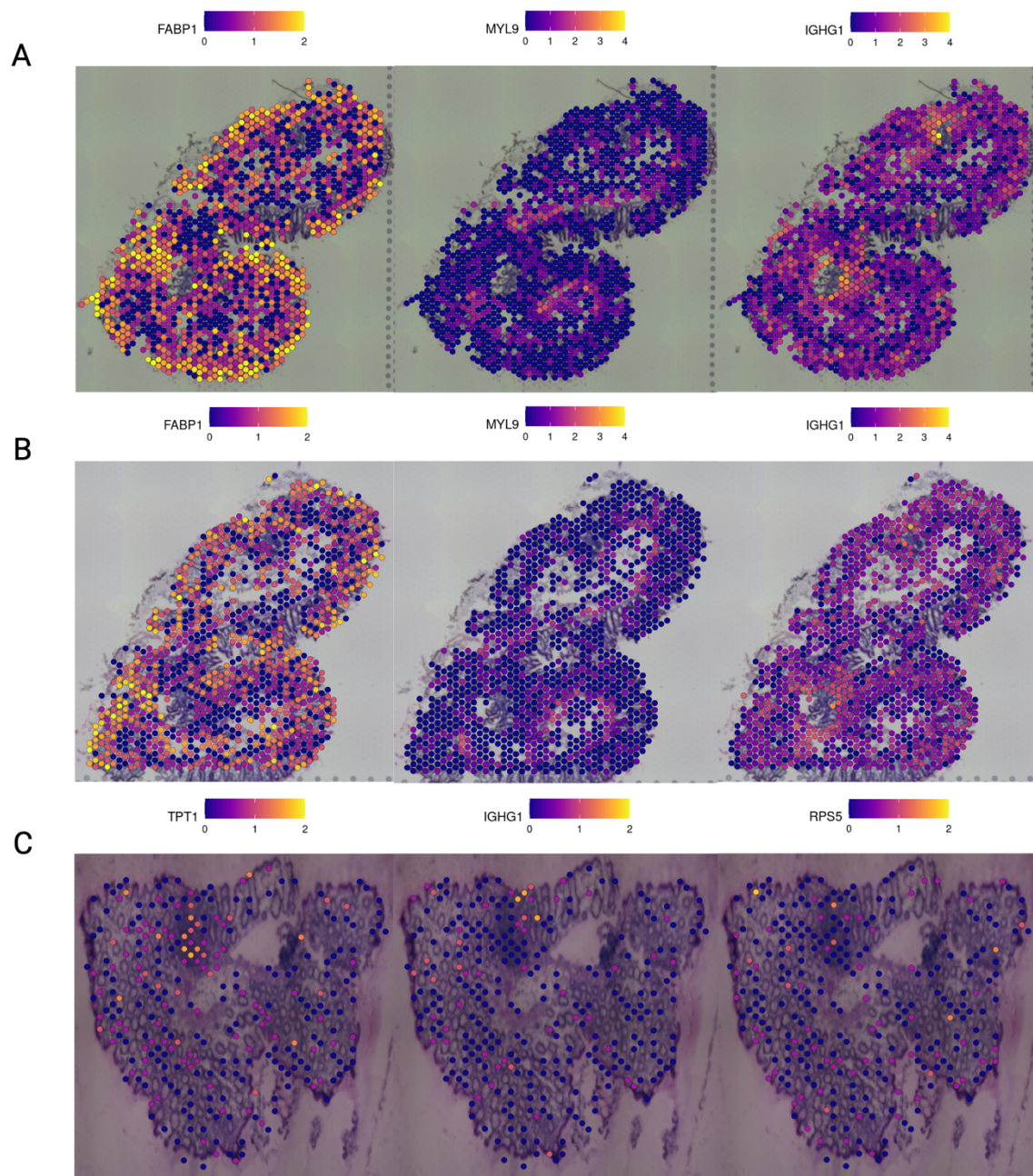


Supplementary Figure 2: A) mRNA marker expression in P1T replicate 2. **B)** lncRNA marker expression in P1T replicate 2. **C)** ZFAS1 expression in P1T (left panel) and P1T replicate 2 (right panel).

Scale = normalised, scaled expression values. Image created with Biorender.com.



Supplementary Figure 3: A) mRNA marker expression in P2T replicate 2. **B)** P1T expression of *CKB*. **C)** lncRNA marker expression in P2T replicate 2. Scale = normalised, scaled expression values. Image created with Biorender.com.



Supplementary Figure 4: A) mRNA marker expression in P1N replicate 1. **B)** mRNA marker expression in P1N replicate 2. **C)** mRNA marker expression in P2N. Scale = normalised, scaled expression values. Image created with Biorender.com.

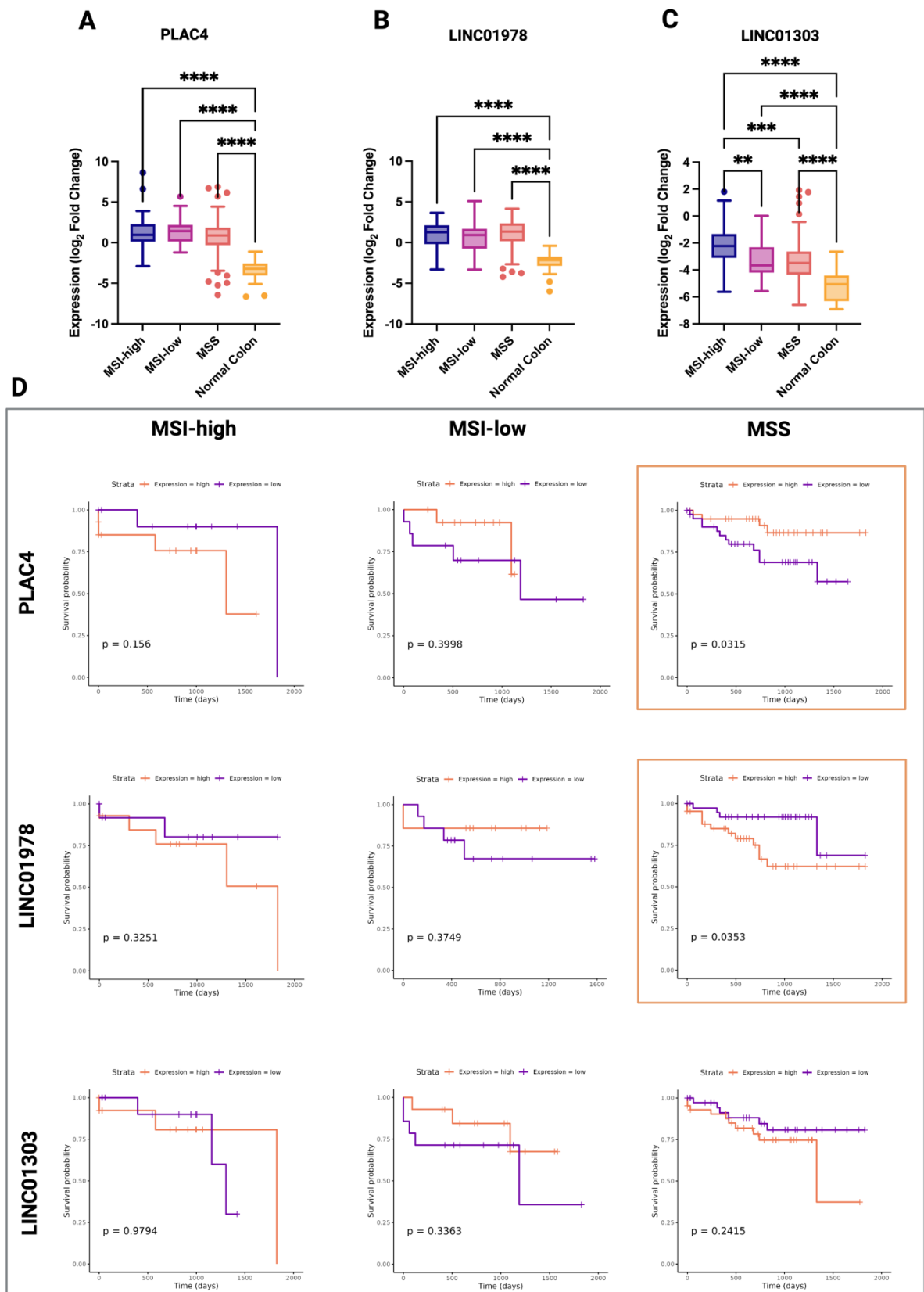
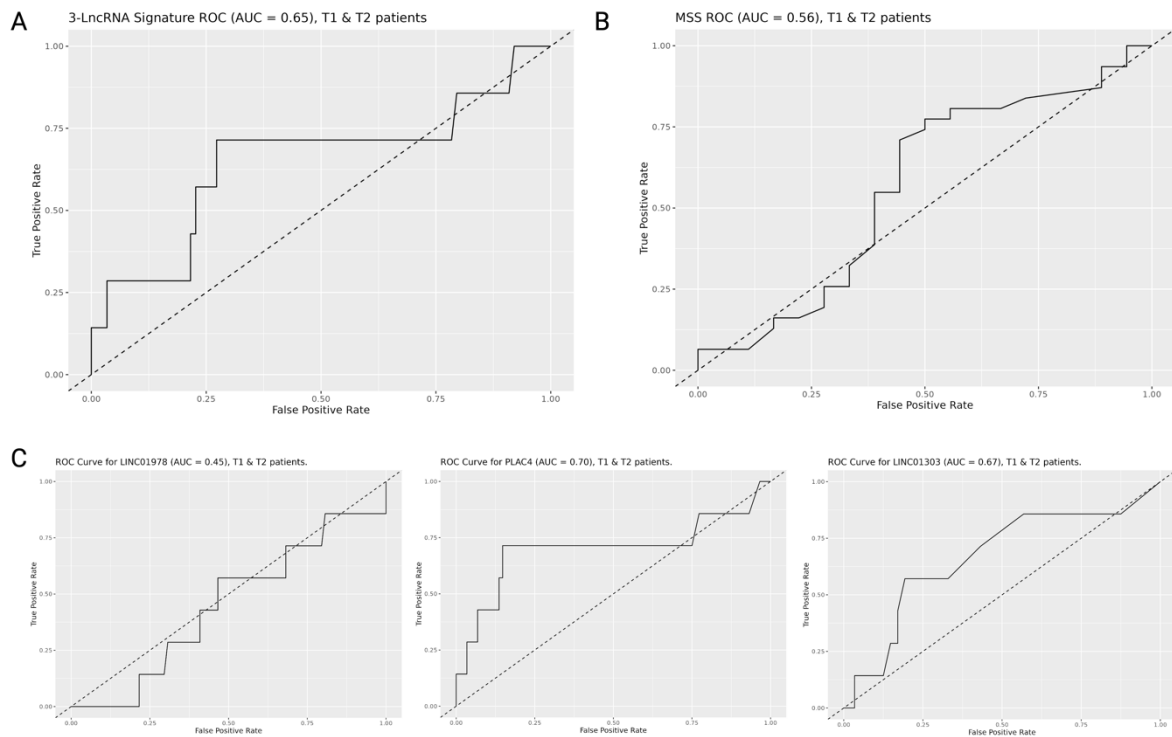
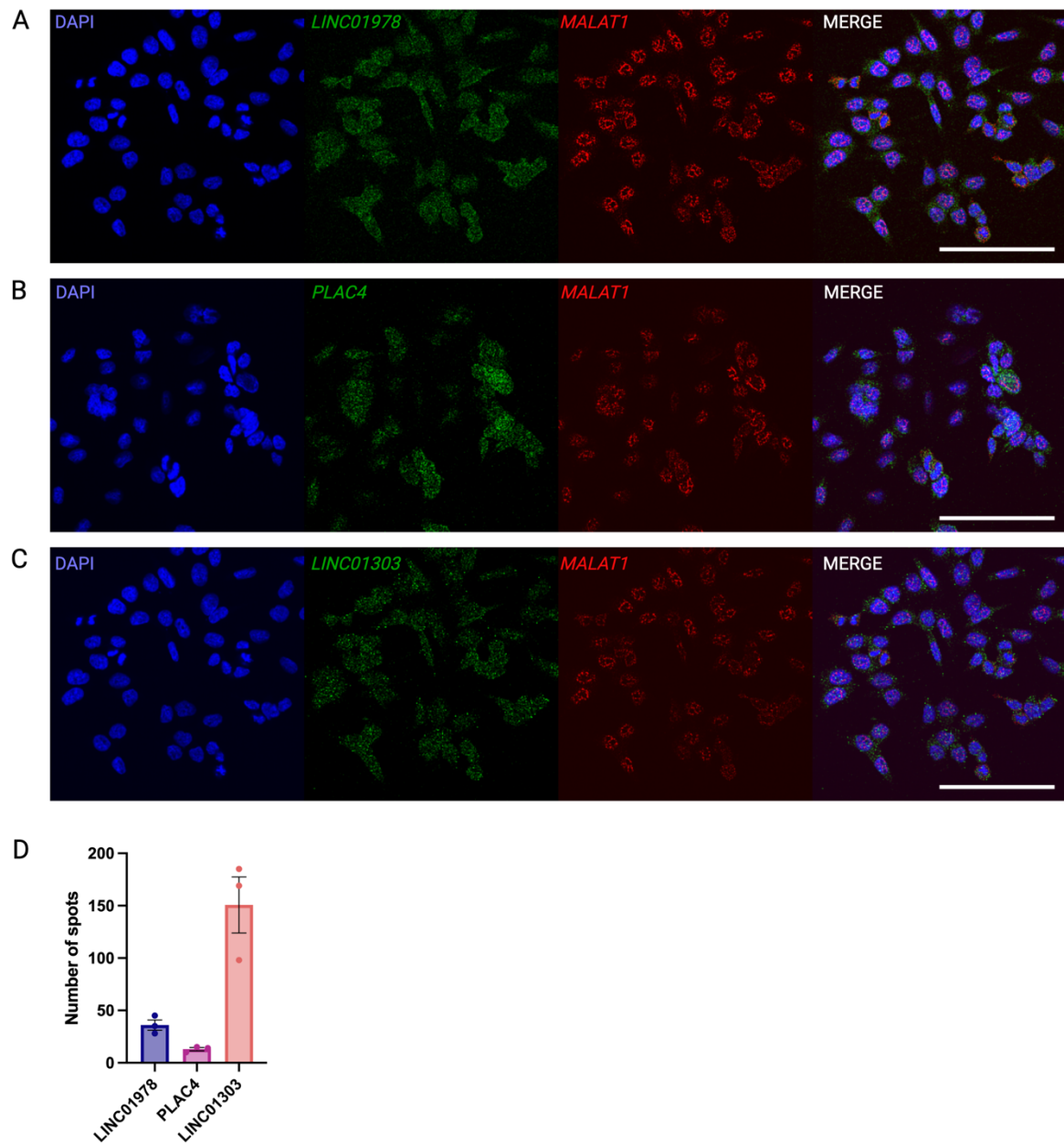


FIGURE LEGEND NEXT PAGE

Supplementary Figure 5: A-C) Candidate lncRNA expression in the TCGA-COAD cohort, stratified by MSI status. MSI-high n = 40, MSI-low n = 42, MSS n = 129, Normal colon n = 41. **** = adjusted p val ≤ 0.0001 , *** = adjusted p val ≤ 0.001 , (one-way ANOVA with Tukey's post-hoc test for multiple comparisons). **D)** Candidate lncRNA expression correlation with 5-year survival for TCGA-COAD patients, stratified by MSI status. Orange box = $p \leq 0.05$ (Log-rank test, comparing high (upper tertile) and low (lower tertile) expression curves). Image created with Biorender.com.

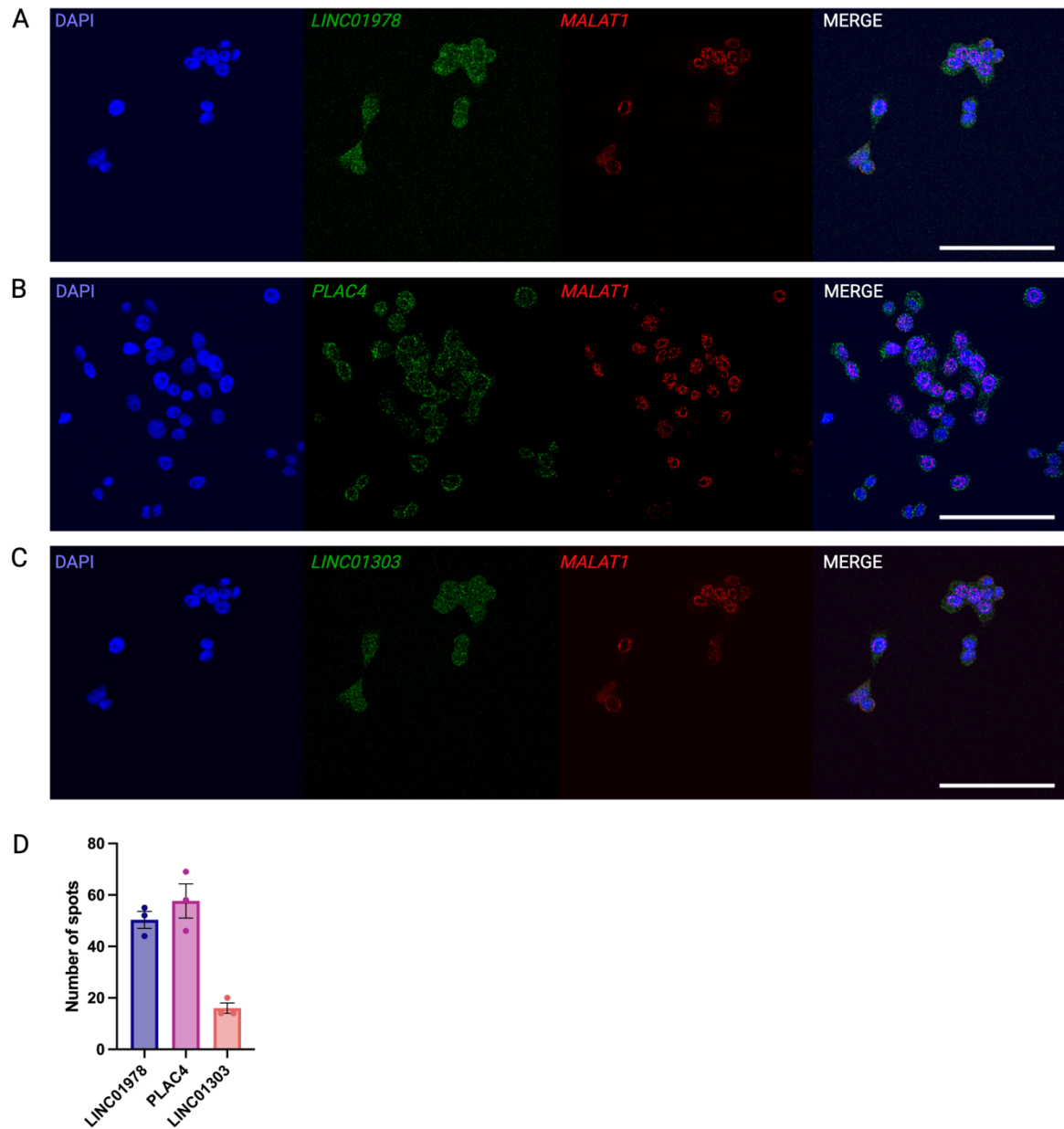


Supplementary Figure 6: A) ROC curve for the effectiveness of lncRNA signature expression score (for the three candidate lncRNAs, expression score = average expression per patient) to predict overall survival status (alive/dead) of patients with tumours graded as stage T1 and T2. **B)** ROC curve for the effectiveness of microsatellite stability positive status (MSS), a known marker for increased risk of recurrence, to predict overall survival (days) of patients with tumours graded as stage T1 and T2. **C)** ROC curves for the effectiveness of individual candidate lncRNA gene expression to predict overall survival status (alive/dead) in patients with tumours graded as T1 and T2. Left panel = LINC01978, Middle panel = PLAC4, Right panel = LINC01303. Image created with Biorender.com.

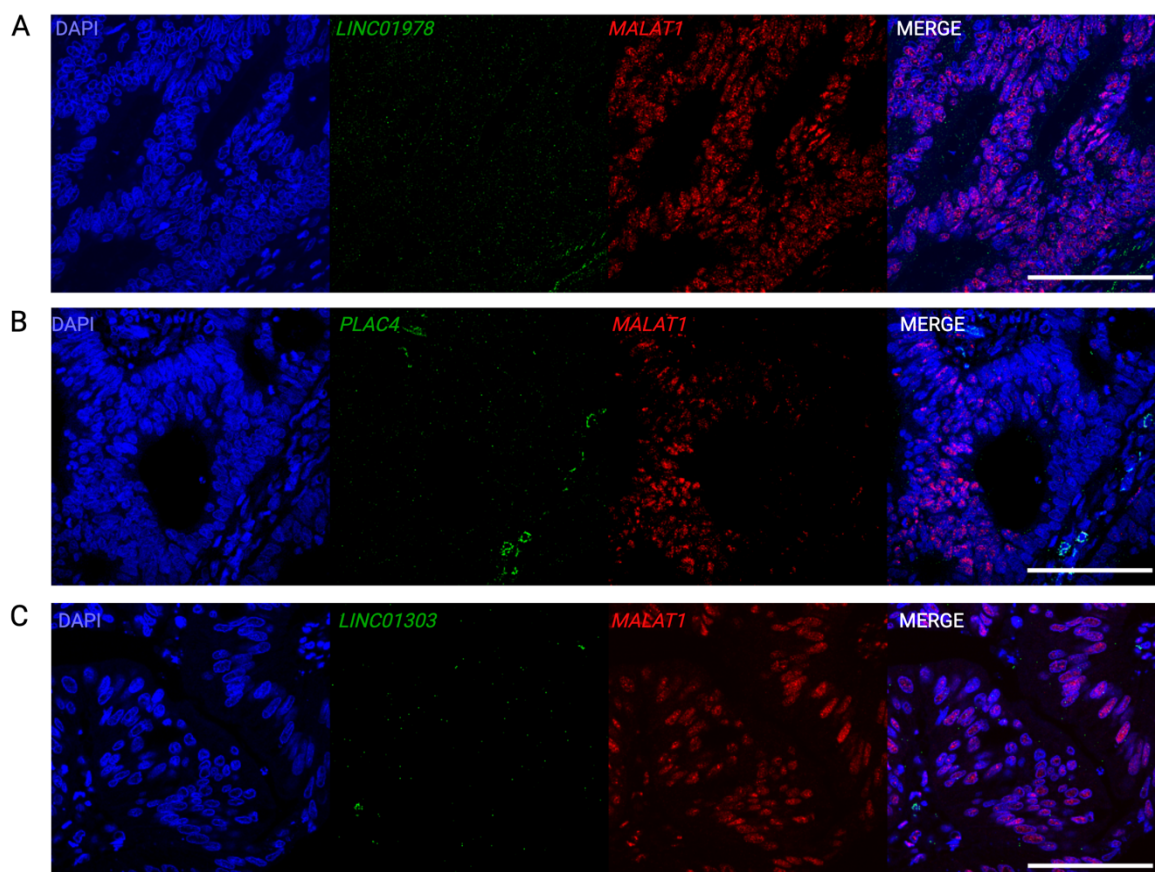


Supplementary Figure 7: **A)** HCR-FISH signal for *LINC01978* positive control *MALAT1* in HCT116 CRC cells. **B)** HCR-FISH signal for *PLAC4* and positive control *MALAT1* in HCT116 CRC cells. **C)** HCR-FISH signal for *LINC01303* positive control *MALAT1* in HCT116 CRC cells. **D)** Quantification of HCR-FISH signal in HCT116 cells for each target lncRNA.

Scale bar = 100 μ m. DAPI stain denotes nuclei. Image created with Biorender.com.



Supplementary Figure 8: A) HCR-FISH signal for *LINC01978* positive control *MALAT1* in HT29 CRC cells. **B)** HCR-FISH signal for *PLAC4* and positive control *MALAT1* in HT29 CRC cells. **C)** HCR-FISH signal for *LINC01303* positive control *MALAT1* in HT29 CRC cells. **D)** Quantification of HCR-FISH signal in HT29 cells for each target lncRNA. Scale bar = 100 μ m. DAPI stain denotes nuclei. Image created with Biorender.com.



Supplementary Figure 9: **A)** Additional representative HCR-FISH signal for low expression of *LINC01978* and positive control *MALAT1* in Patient 5 primary tumour. **B)** Additional representative HCR-FISH signal for low expression of *PLAC4* and positive control *MALAT1* in Patient 5 lung metastasis. **C)** Additional representative HCR-FISH signal for low expression of *LINC01303* and positive control *MALAT1* in Patient 6 primary tumour. Scale bar = 100 µm. DAPI stain denotes nuclei. Image created with Biorender.com.

Supplementary Tables

Supplementary Table 1: Lot number for custom-synthesised probes*.

Target ID	Probe Lot Number
<i>LINC01978</i>	RTB973
<i>LINC01303</i>	RTB972
<i>PLAC4</i>	RTB970

*Quote probe lot number to purchase custom probes not available on website.