



SMARCA4-Mutant NSCLC Features a TAM-Driven Perivascular–Stromal Niche Orchestrating Immune Exclusion

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STUDY DESIGN

Background

SMARCA4 mutations predict poor outcome, but spatial, cellular and molecular context remains poorly defined.

Cohort



- Xenium spatial profiling
- Neighborhood + interaction maps
- TAM states + ECM directionality

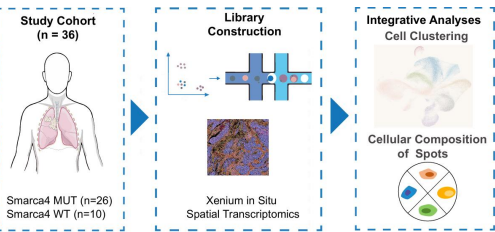


Fig. 1A · Study workflow

FINDING 1 · PERIVASCULAR NICHE

TAM-driven collagen alignment converts a perivascular niche into an immune barrier.

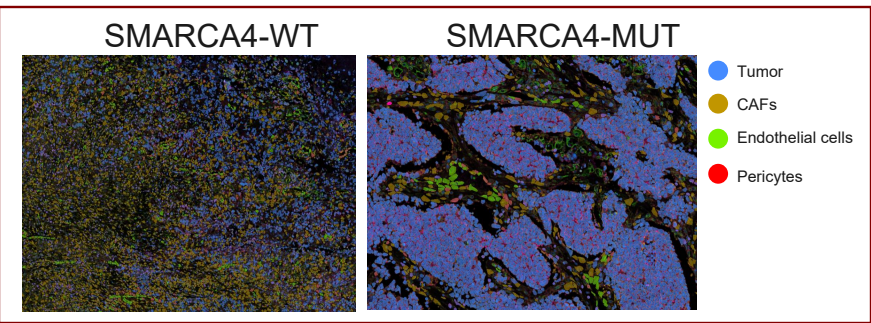
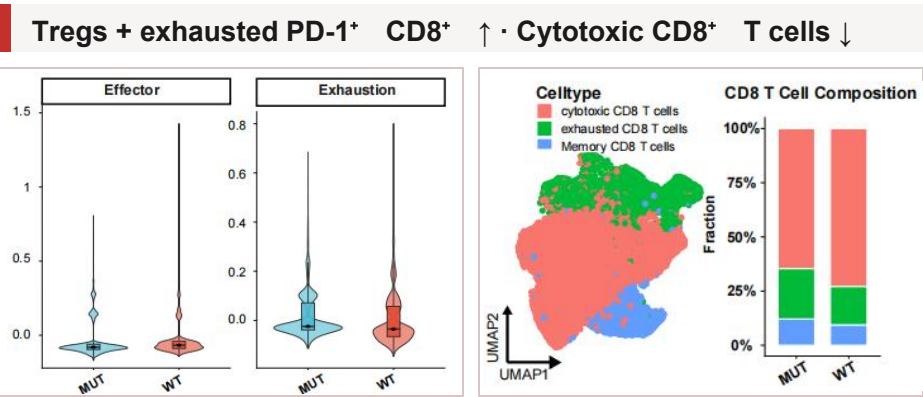


Figure 1D · WT versus MUT spatial architecture



FINDING 2 · TAM–ECM COUPLING

Mutant tumors show matrix organization, vascular programs and aligned collagen.

