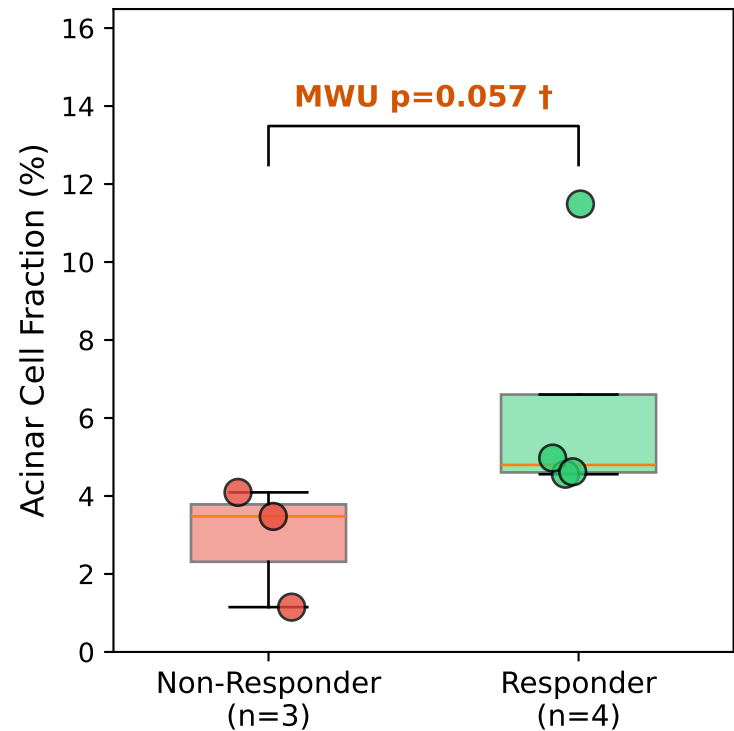
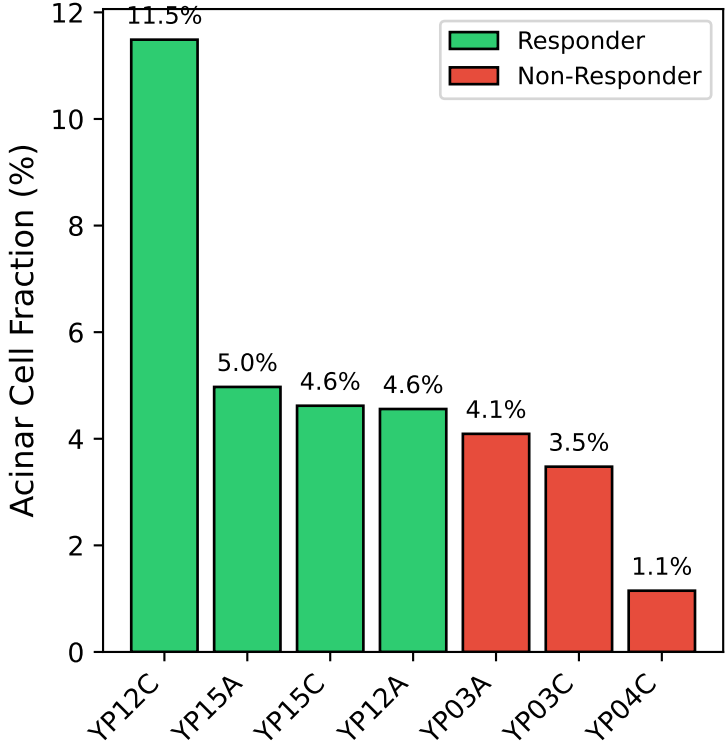


ACINAR CELL ENRICHMENT IN TREATMENT RESPONDERS  
Pancreatic Ductal Adenocarcinoma (PDAC) Spatial Transcriptomics Analysis

A. Acinar Enrichment in Responders



B. Acinar % by Sample



C. Statistics & Interpretation

STATISTICAL ANALYSIS

Sample Sizes:

- Responders (R):  $n = 4$
- Non-Responders (NR):  $n = 3$

Acinar Cell Fractions:

- R Mean: 6.4% (SD: 2.9%)
- NR Mean: 2.9% (SD: 1.3%)
- Difference: +3.5%

Statistical Tests:

- Mann-Whitney U:  $p = 0.0571$  †
- Welch's t-test:  $p = 0.1352$

INTERPRETATION

Acinar cells show a TRENDING increase in treatment responders ( $p=0.057$ ).

This finding suggests that preserved acinar cell populations may be associated with better treatment outcomes in PDAC.

Note: With  $n=4$  R and  $n=3$  NR, statistical power is limited. This finding warrants validation in larger cohorts.

Acinar cells are the ONLY cell type showing a trending difference between treatment responders and non-responders.

- 2.2x higher in Responders (6.4% vs 2.9%)
- MWU  $p = 0.057$  (trending)

BIOLOGICAL SIGNIFICANCE

Acinar cells are the primary functional cells of the exocrine pancreas. Their preservation may indicate:

1. Less tumor infiltration
2. Better tissue architecture
3. Maintained organ function

This could explain better treatment response through improved drug delivery and immune cell access.

NEXT STEPS

- Validate in independent cohort
- Correlate with clinical outcomes
- Investigate spatial relationships with immune cells

D. Spatial Distribution of Acinar Cells  
(Red/Blue = Acinar cells, Gray = Other cells)

