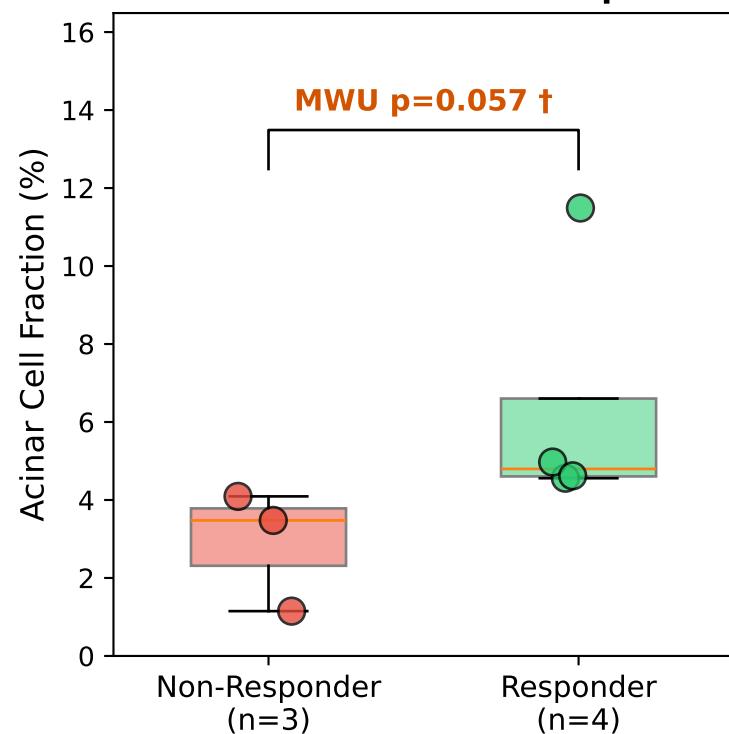


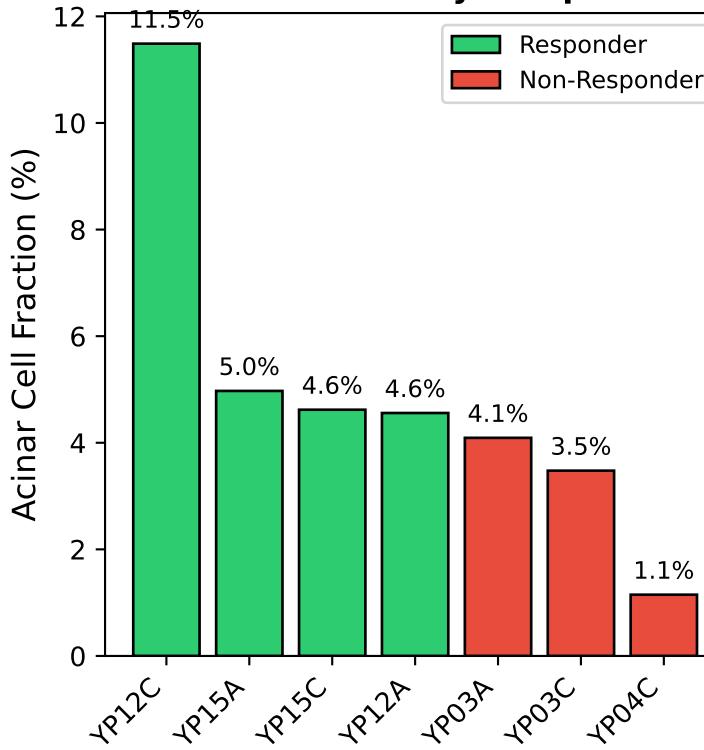
ACINAR CELL ENRICHMENT IN TREATMENT RESPONDERS

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.

E. Conclusions

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)

