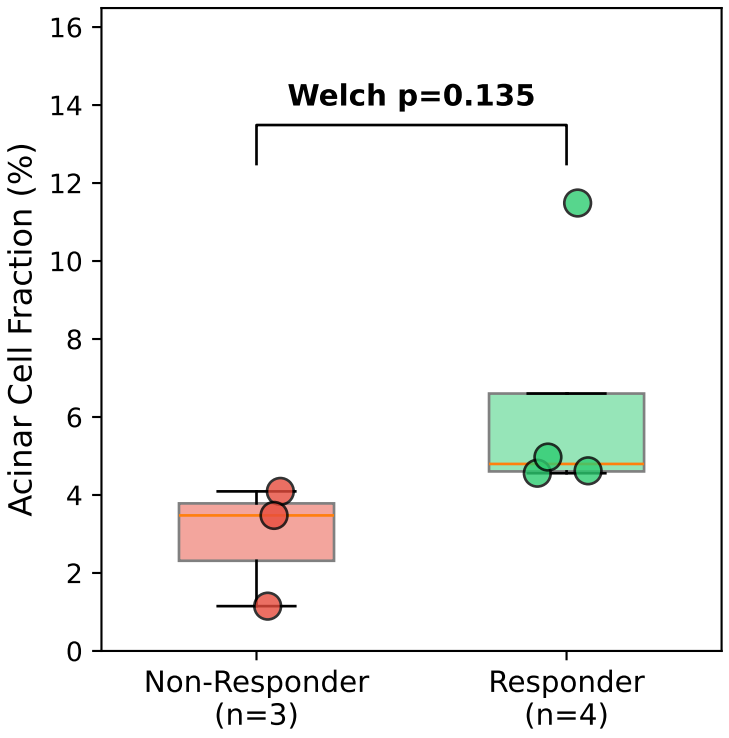
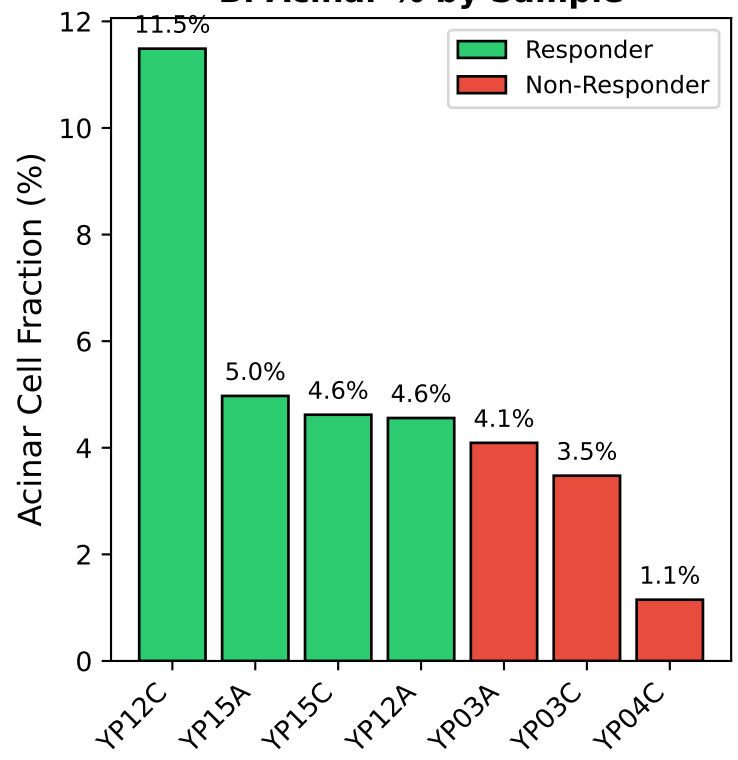
ACINAR CELL ENRICHMENT IN TREATMENT RESPONDERS
Pancreatic Ductal Adenocarcinoma (PDAC) Spatial Transcriptomics Analysis

A. Acinar Enrichment in Responders



B. Acinar % by Sample



C. Statistics & Interpretation

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STATISTICAL ANALYSIS
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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 (Welch's t-test preferred):
  • Welch's t-test: p = 0.1352
  • Mann-Whitney U: p = 0.0571 (reference)

Result: NOT SIGNIFICANT

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INTERPRETATION
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Acinar cells show a TRENDING increase
in treatment responders (p=0.135).

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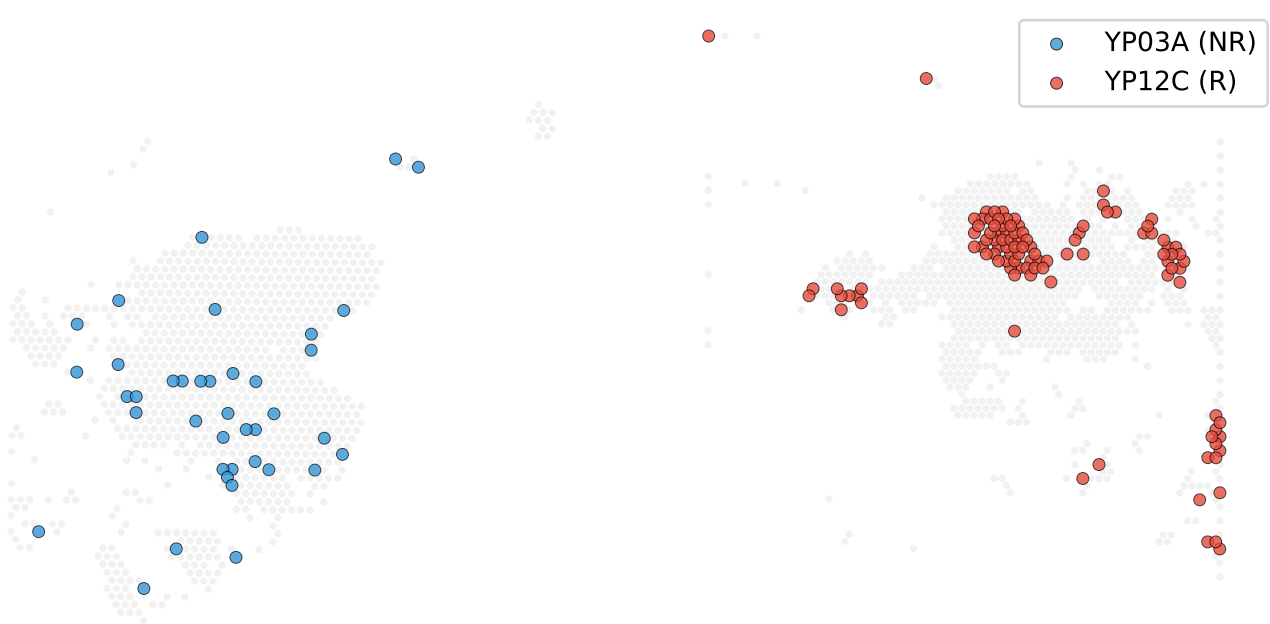
D. Spatial Distribution of Acinar Cells
(Red/Blue = Acinar cells, Gray = Other cells)



E. Conclusions

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KEY FINDING
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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
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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
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• Validate in independent cohort
• Correlate with clinical outcomes
• Investigate spatial relationships
  with immune cells
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