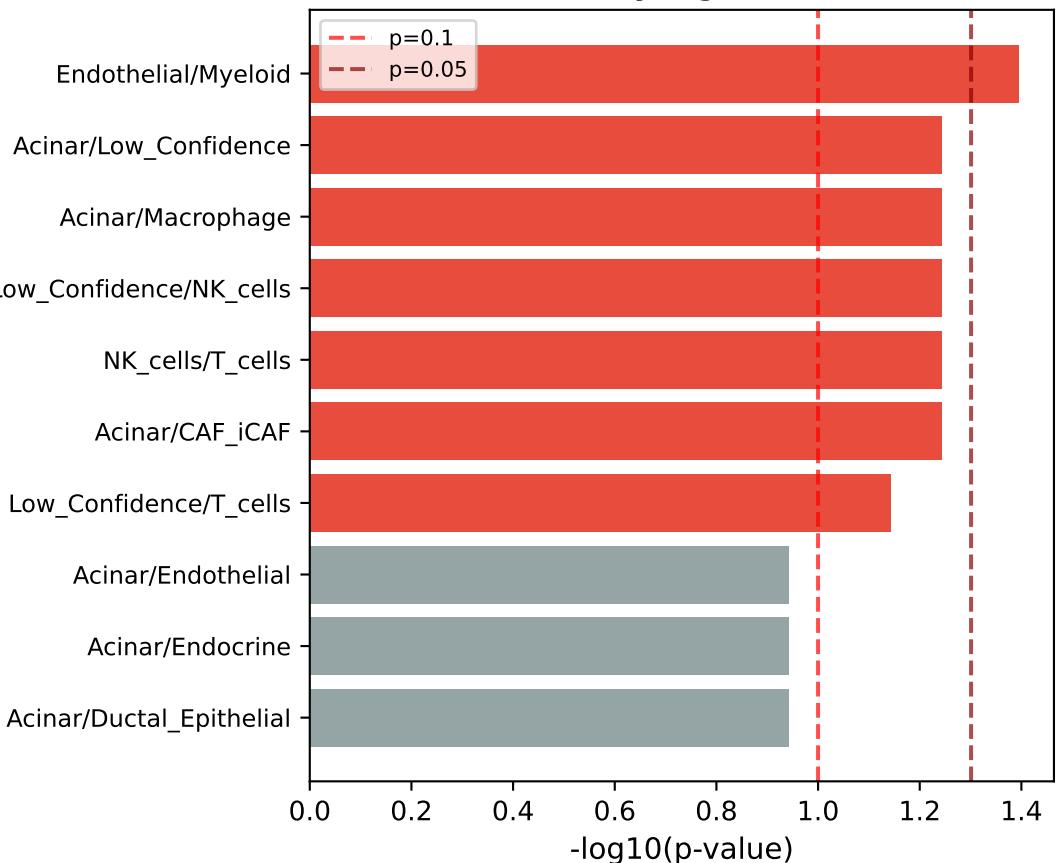


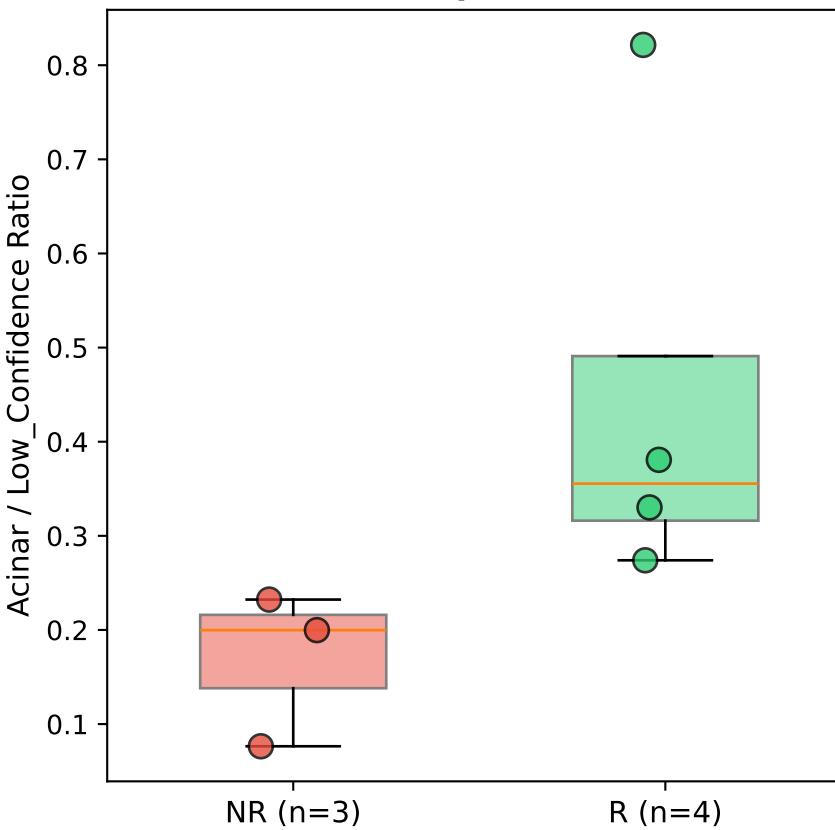
CELL TYPE RATIO ANALYSIS: Composite Biomarkers for Treatment Response

Ratios reveal tissue architecture differences between R and NR

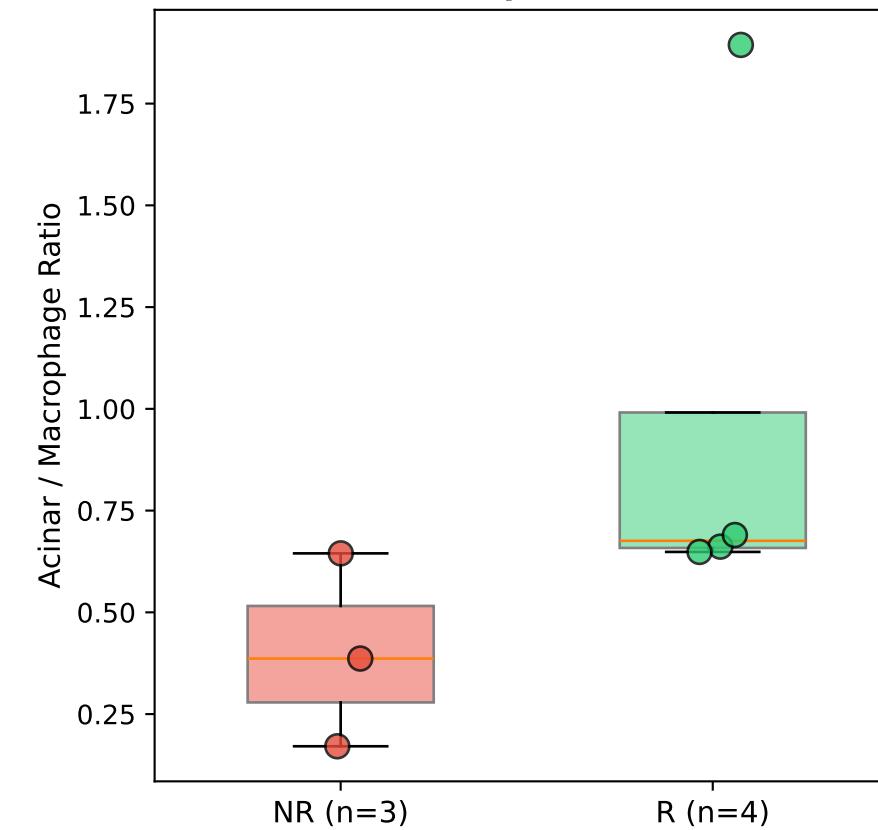
A. Top Discriminating Ratios (sorted by significance)



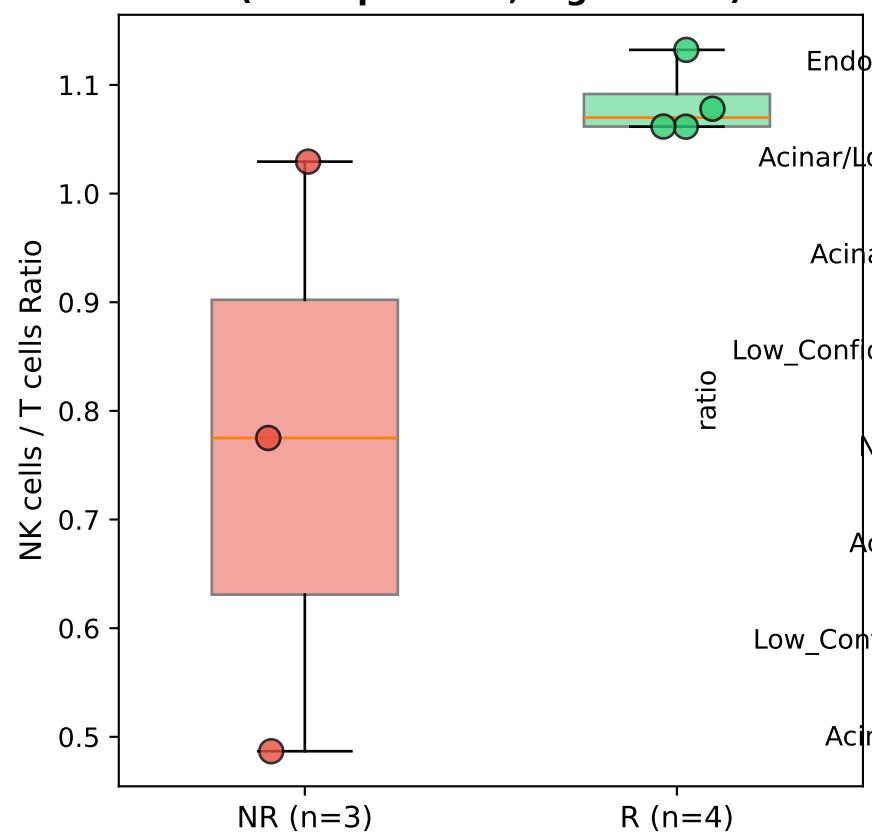
B. Acinar/Low_Confidence (MWU p=0.057)



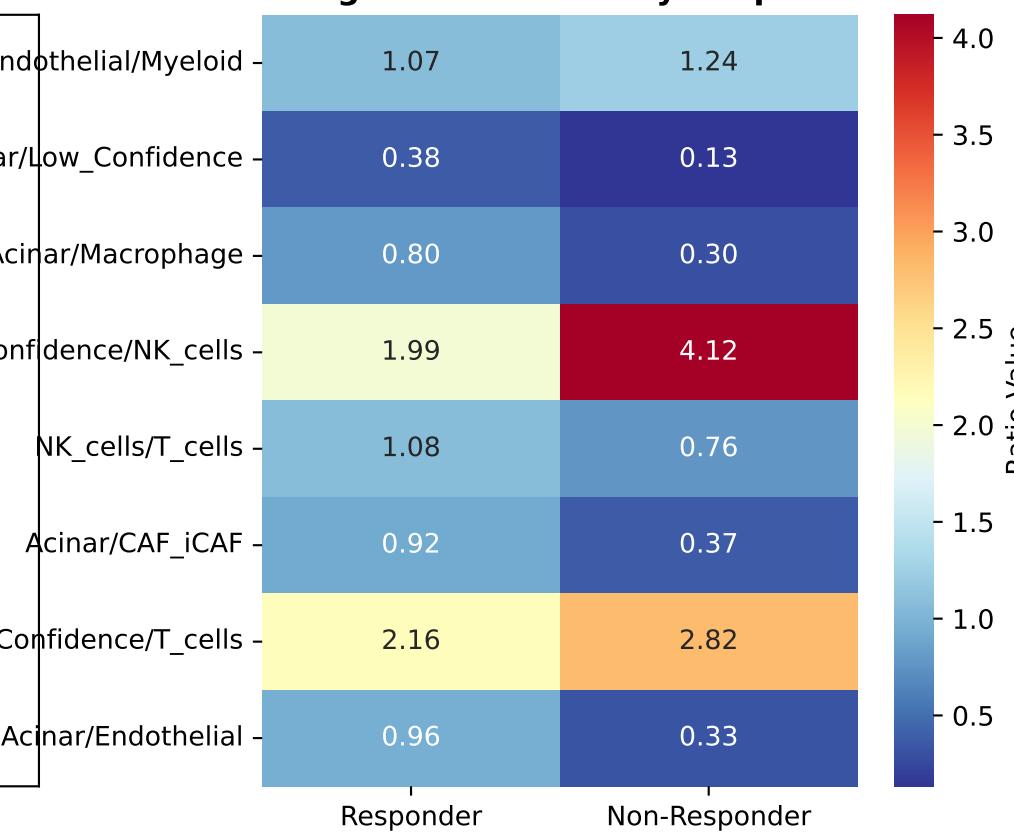
C. Acinar/Macrophage (MWU p=0.057)



D. NK/T Cell Ratio (MWU p=0.057, higher in R)



E. Significant Ratios by Response



F. Interpretation

KEY RATIO FINDINGS

- SIGNIFICANT RATIOS (MWU p < 0.1):
 - Acinar/Low Confidence: 2.7x higher in R → Preserved acinar identity in responders
 - Acinar/Macrophage: 2.4x higher in R → Acinar cells outnumber macrophages in R
 - Acinar/CAF_iCAF: 2.1x higher in R → Less stromal dominance in responders
 - NK/T cell ratio: 1.4x higher in R → Different immune balance in R

BIOLOGICAL INTERPRETATION

- Responders show:
 - PRESERVED normal tissue architecture (high Acinar-based ratios)
 - BALANCED immune composition (NK/T ratio higher)
 - LESS stromal dominance (lower CAF/Acinar ratios)
- Non-responders show:
 - DISRUPTED tissue with low Acinar
 - MACROPHAGE/CAF dominant stroma
 - DUCTAL epithelial takeover

CLINICAL IMPLICATION

Acinar-based ratios may serve as composite biomarkers for predicting treatment response in PDAC.

Best candidate: Acinar/(Macrophage+CAF)