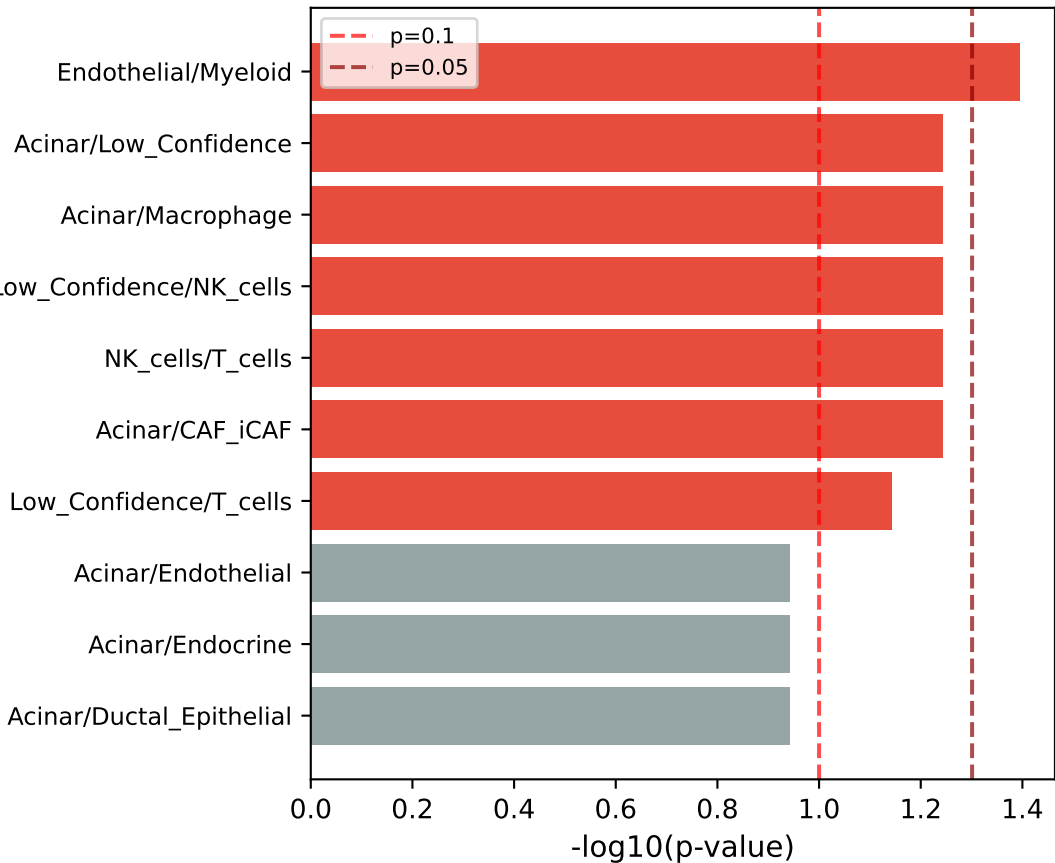
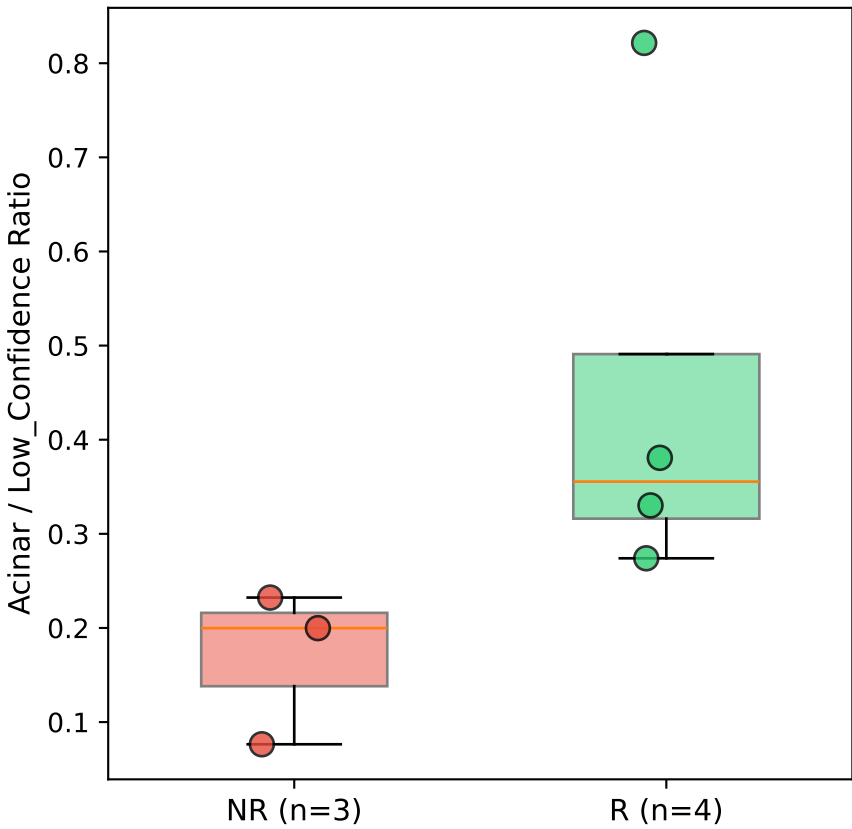


CELL TYPE RATIO ANALYSIS: Composite Biomarkers for Treatment Response
Ratios reveal tissue architecture differences between R and NR

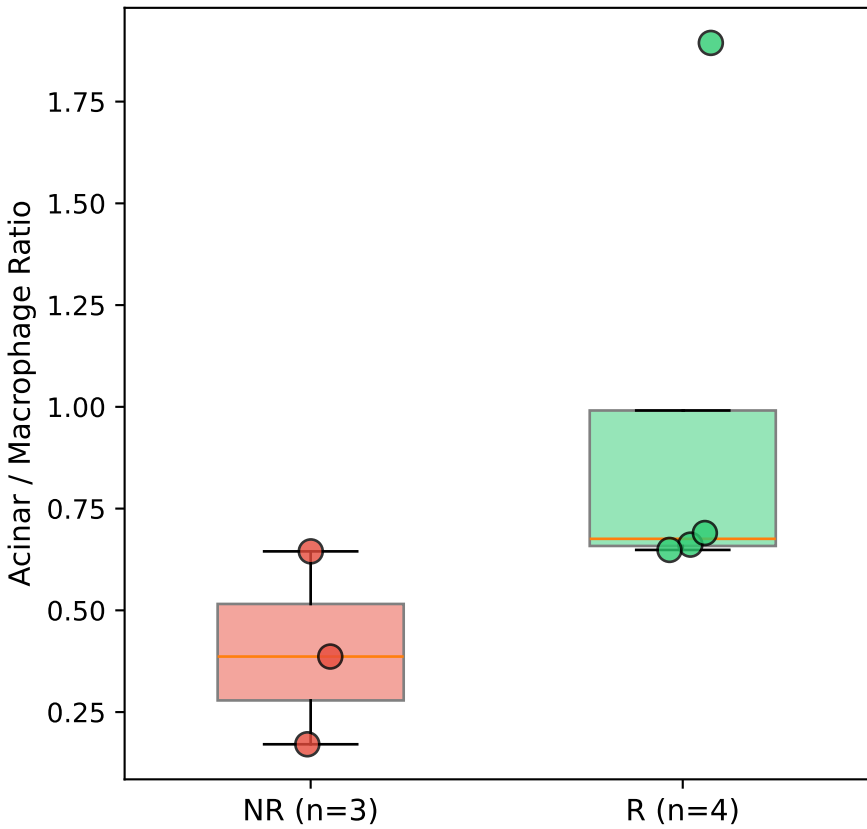
A. Top Discriminating Ratios
(sorted by significance)



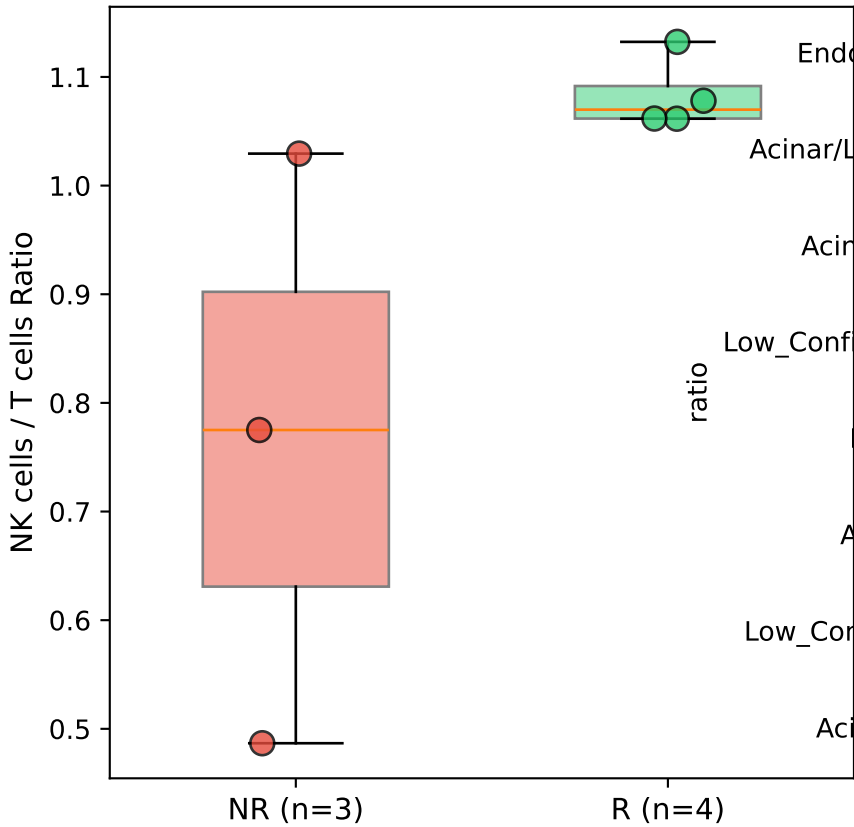
B. Acinar/Low_Confidence
(MWU p=0.057)



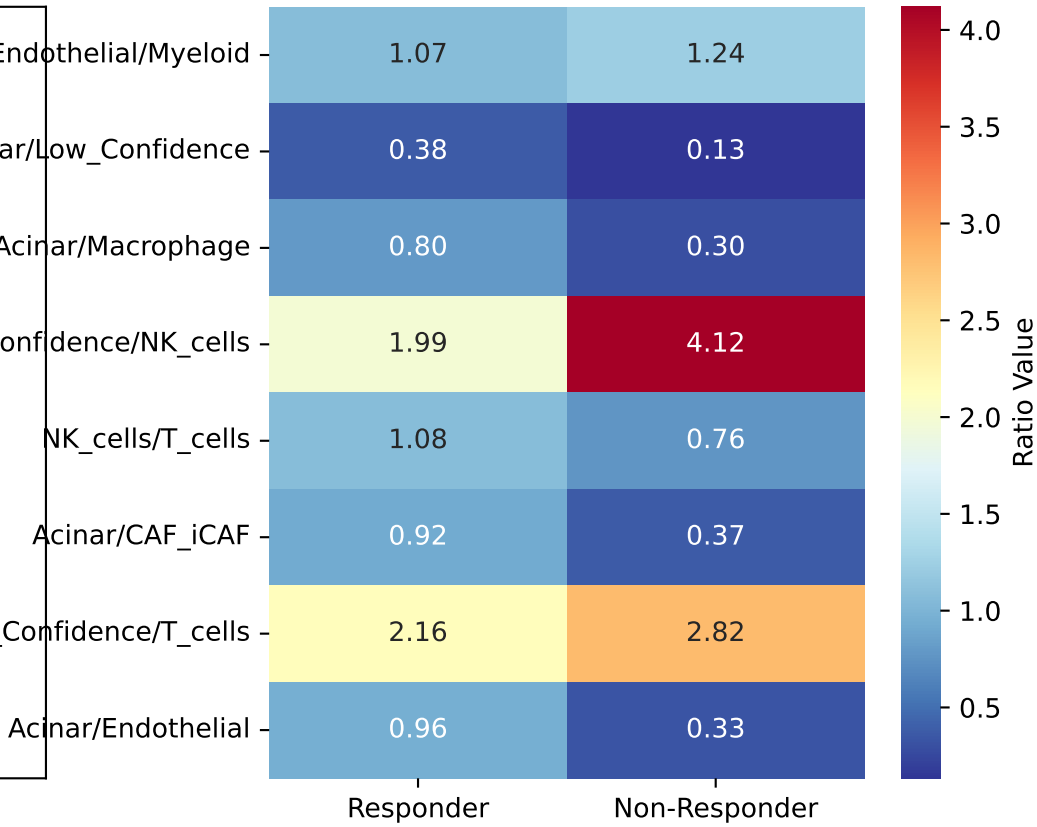
C. Acinar/Macrophage
(MWU p=0.057)



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):
1. Acinar/Low_Confidence: 2.7x higher in R → Preserved acinar identity in responders
2. Acinar/Macrophage: 2.4x higher in R → Acinar cells outnumber macrophages in R
3. Acinar/CAF_iCAF: 2.1x higher in R → Less stromal dominance in responders
4. 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)