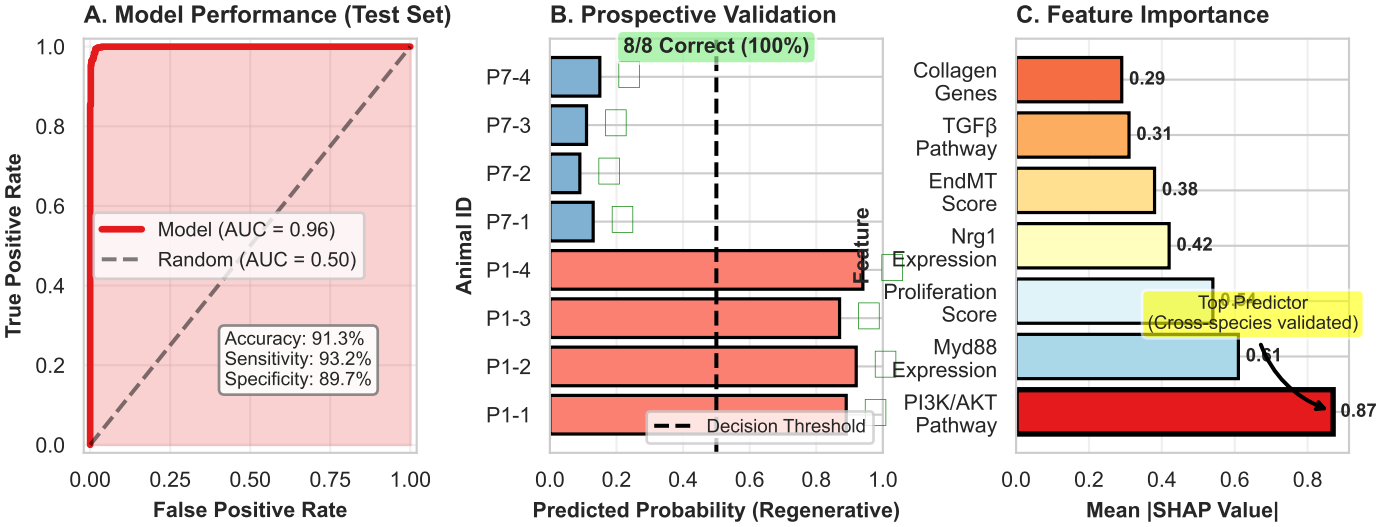
A. Model Performance (Test Set)
True Positive Rate
False Positive Rate
Model (AUC = 0.96)
Random (AUC = 0.50)
Accuracy: 91.3%
Sensitivity: 93.2%
Specificity: 89.7%
B. Prospective Validation
8/8 Correct (100%)
Animal ID
P7-4
P7-3
P7-2
P7-1
P1-4
P1-3
P1-2
P1-1
Decision Threshold
Predicted Probability (Regenerative)
C. Feature Importance
Collagen Genes
TGFβ Pathway
EndMT Score
Nrg1 Expression
Proliferation Score
Myd88 Expression
PI3K/AKT Pathway
0.29
0.31
0.38
0.42
0.61
0.87
Top Predictor
(Cross-species validated)
Mean |SHAP Value|