**Feature Selection Strategy Optimization**

**Expression & Methylation**

| | AUC Score |
|---|---|
| Variance Filtering | 0.640 |
| F-test (ANOVA) | 0.651 |
| Mutual Information | 0.620 |
| LASSO | 0.590 |

**Somatic Mutations**

| | AUC Score |
|---|---|
| Frequency Threshold | 0.570 |
| Pathway Aggregation | 0.582 |
| OncoKB Annotation | 0.560 |
| VAF Filtering | 0.540 |

**Feature Count Optimization**

| | Fusion AUC Score |
|---|---|
| Low (100-500) | 0.673 |
| Medium (1000-2000) | 0.683 |
| High (3000-5000) | 0.690 |
| Optimal (Selected) | 0.705 |

Expr: 3000
Meth: 3000
Mut: 300
Prot: 185

*Note: All methods tested with high cross-validation to avoid overfitting*