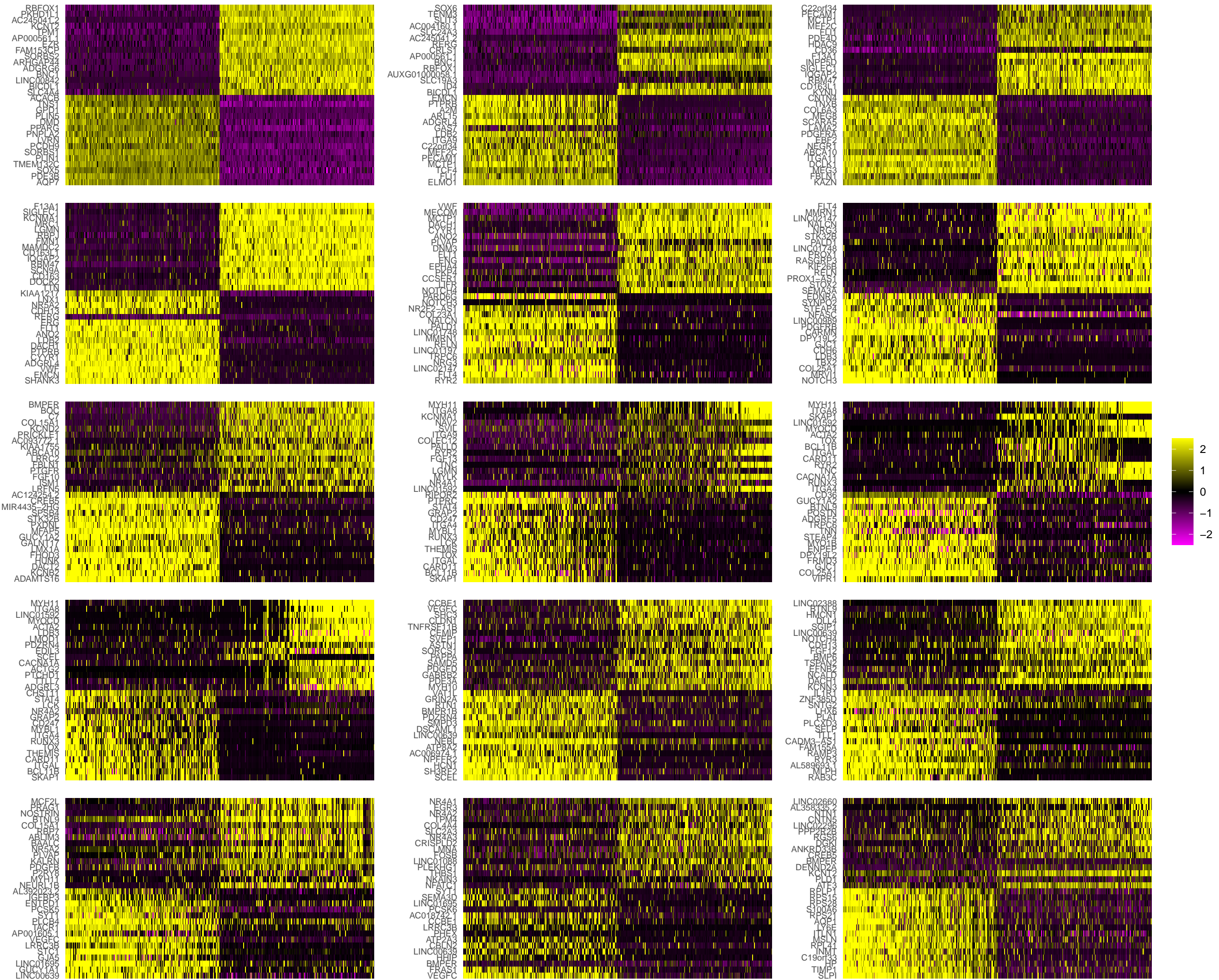


Principal component analysis: top contributing genes

Heatmap showing genes with highest loadings for PC1–15



Yellow = high expression, Purple = low expression. 15 PCs selected for downstream UMAP analysis.