## Gene Expression Feature Engineering: Traditional Preprocessing vs scFoundation LLM

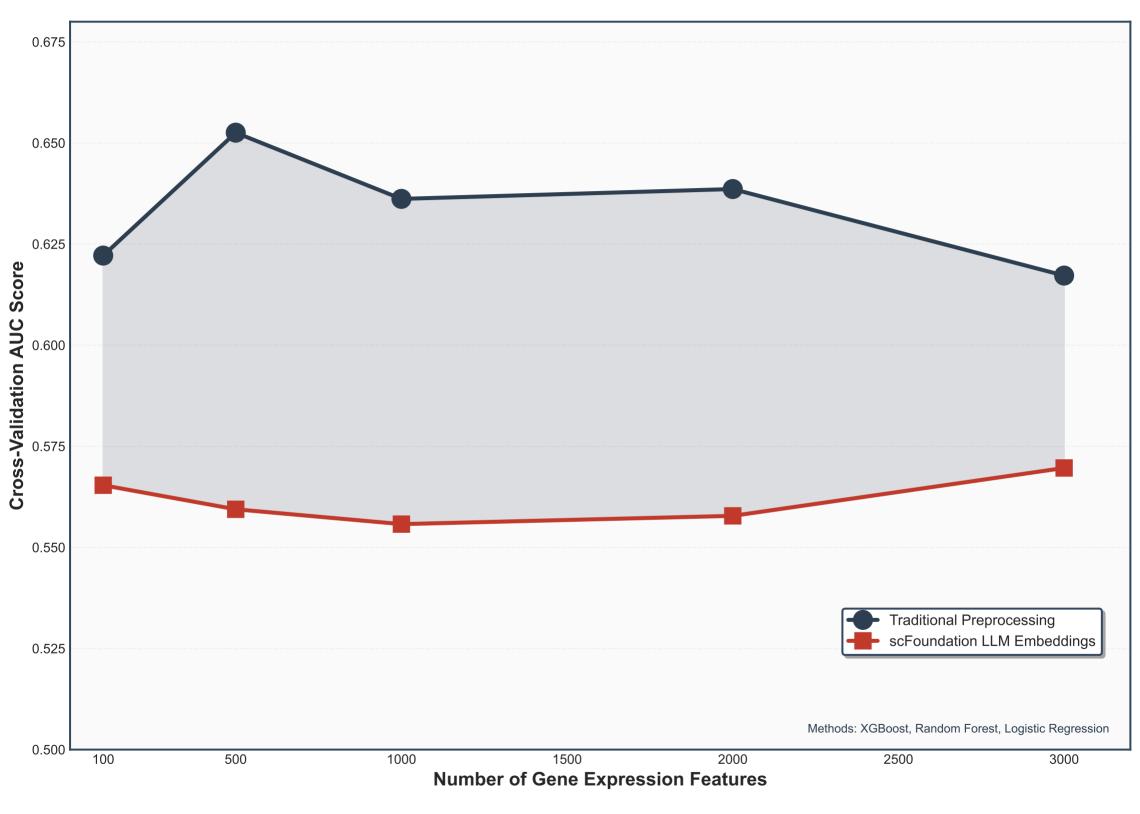


Figure 7. Comparison of traditional gene expression preprocessing versus scFoundation large language model embeddings. Across all feature counts tested, traditional preprocessing consistently outperforms LLM embeddings, achieving up to 8.3% higher AUC. This suggests that task-specific feature engineering remains superior to general-purpose embeddings.