

## 1. Aligning Large Language Models with Healthcare Stakeholders: A Pathway to Trustworthy AI Integration

The paper discusses the importance of aligning large language models (LLMs) with the needs and values of healthcare stakeholders for effective integration of AI in healthcare. It suggests that healthcare professionals should be involved in all stages of implementing LLMs, including data collection, model training, and application. The paper also explores methods, tools, and applications for aligning LLMs with healthcare stakeholders. It concludes that LLMs can be more aligned with human values through better integration of healthcare knowledge, understanding tasks, and human guidance, leading to more reliable healthcare applications.

## 2. An Analysis on Large Language Models in Healthcare: A Case Study of BioBERT

This paper investigates the use of large language models, specifically BioBERT, in healthcare. It reviews previous methods of natural language processing (NLP) in healthcare and their limitations. The study then explores how BioBERT can be used in healthcare applications, particularly in biomedical text mining. The researchers propose a method to fine-tune BioBERT to suit healthcare needs, which includes collecting data from various healthcare sources, annotating data for tasks like identifying and categorizing medical entities, and applying specialized techniques to handle complex biomedical texts.

## 3. Developing Healthcare Language Model Embedding Spaces

The paper discusses improving language models used in healthcare. Current models often struggle with healthcare-specific data. The researchers tested three methods to improve these models: traditional masked language modeling, Deep Contrastive Learning for Unsupervised Textual Representations (DeCLUTR), and a new method using metadata categories from healthcare settings. They evaluated these methods by using them to classify documents. The Deep Contrastive Learning method performed the best, providing strong results with less data and fewer updates to

the model.