IRB Concept Note – Expanded with Literature Review and Gap

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# Project Overview

This project investigates how large language models (LLMs) like ChatGPT affect cognitive-emotional processing in oncology environments—particularly during periods of distress, trauma, or uncertainty. Drawing on reflective physician experience and thematic clinical parallels, the study will analyze potential risks of hallucination, misinterpretation, or over-personification of AI in both providers and patients. The goal is to create a framework for ethical use of emotionally intelligent AI in high-stakes clinical communication, with recommendations for LLM design, implementation, and training.

# Literature Review

- LLMs are being studied for their role in communication, patient education, and decision support (Lim & Hwang, 2024; Madduri et al., 2023).  
- Ethical concerns include bias, hallucination, and explainability (Brown et al., 2024; Johnson et al., 2023).  
- However, few if any studies address emotional misalignment or hallucination risk under grief or cognitive vulnerability.  
- Palliative care and emotional intelligence remain significantly underrepresented in LLM research.

# Identified Gap

There is a critical gap in understanding how emotionally intelligent LLMs interact with human users under cognitive or emotional distress. This includes grief-stricken patients, burnt-out clinicians, or anyone operating with emotional projection or moral injury. These users may interpret or misattribute AI outputs in ways that carry significant psychological and ethical weight. This project seeks to define, explore, and ethically map those risks—and begin to articulate design guardrails.