

Category: Clinical Trial Operations (Trial Start-up, Regulatory, Finance, Data Management, IITs) - Work in progress

Utilization of Dual PI Model for Non-Oncology CAR-T Clinical Trials at Standalone and Matrix Cancer Centers: Best Practices From Moffitt Cancer Center and Meyer Cancer Center at Weill Cornell

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1. Background

As non-oncology applications of chimeric antigen receptor T-cell (CAR-T) therapy expand into rheumatology and other specialties; successful clinical trial execution requires collaboration between multiple institutions. These trials introduce unique challenges, including cross-specialty clinical oversight, complex consent workflows, and variable institutional standards for patient management, regulatory compliance, billing and budgeting, and contracting across distinct legal entities. Traditional single-Principal Investigator (PI) leadership models are inefficient to address these challenges, as they do not integrate the shared expertise needed to manage CAR-T toxicities and disease-specific procedures. New collaborative frameworks are needed to align scientific leadership, operations, and institutional accountability in non-oncology clinical trials.

2. Goals

Establish a Dual PI model in which two site-specific PIs, each bringing distinct clinical and subject matter expertise, maintain full oversight at their respective sites while operating under a single protocol. This collaborative initiative aimed to evaluate the feasibility and effectiveness of a Dual PI model at cancer centers; define operational support required to conduct these studies; and develop best practices for operational leadership, budget and contracting, consenting, and safety oversight that maintain regulatory compliance and patient safety.

3. Solutions and Methods

Clinical Trial Office leaders from Moffitt Cancer Center and Meyer Cancer Center at Weill Cornell shared experiences and identified best practices in managing non-oncology CAR-T trials including:

- Dual PI leadership structures that balance disease specific and cellular immunotherapy expertise.
- Budgeting and contracting models, including separate institutional agreements with the participating pharmaceutical sponsor.
- Consent workflows, including dual-consenting processes.
- Operational support, including collaboration agreements between institutions outlining staffing support, adverse event and deviation documentation, data management, and Electronic Medical Record (EMR) interoperability.
- Regulatory readiness, including Institutional Review Board (IRB) strategies, U.S. Food and Drug Administration (FDA) inspection preparedness, and site qualification requirements for administering cellular immunotherapies.

4. Outcomes

The Dual PI model is essential for distributing accountability in non-oncology CAR-T trials. The institutions reported successful negotiations with sponsors to ensure academic credit for both PIs and to adapt systems to accommodate Dual PI structures. The institutions anticipate enhanced safety

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oversight, delineation of clinical responsibility, and dual recognition for scientific and operational contributions. Institutions implementing structured collaboration agreements and dual-consent workflows expect alignment and reduced ambiguity in patient management. At Moffitt Cancer Center, the first Dual PI trial was activated November 2025 with the second activated February 2026. At Meyer Cancer Center, the first Dual PI trial was activated October 2025.

5. Lessons Learned and Future Directions

Early establishment of Dual PI models to align expertise is essential. Clear workflows for collaboration, patient safety management, budgeting and contracting, and multi-PI authorship are critical to prevent operational bottlenecks and to ensure trial integrity. Moving forward, the institutions plan to (1) formalize templates for collaboration agreements; (2) establish a standardized framework for billing classification and fee schedules for cellular immunotherapy procedures; (3) build cross-disciplinary CAR-T educational resources; (4) standardize consent, budgeting, contracting, and data sharing workflows; and (5) continue knowledge sharing with other cancer centers as the field of cellular immunotherapy expands. Broader adoption of these practices will support safer, more efficient trial execution and accelerate the development of CAR-T therapies across new disease domains.