

ChatGPT to develop a diagnosis and treatment plan would produce better outcomes than either ChatGPT or the clinical mental health care provider working independently. We will also expect to find a positive attitude toward the integration of ChatGPT applications, viewing them as useful tools that complement traditional psychological interventions for Hispanic LGTTQI+ young adults. The study will provide evidence of the effectiveness of ChatGPT to complementing clinical practice involving Hispanic LGTTQI+ young adults. Those results in a preclinical phase are preconditions to a more applied intervention. **DISCUSSION/SIGNIFICANCE OF IMPACT:** We aim to improve the quality of life for LGTTQI+ Hispanics by developing innovative psychological treatments enhanced by AI apps. By developing innovative treatments, we are addressing and mitigating health disparities within the LGTTQI + Hispanic community in Puerto Rico and contributing to a broader effort of inclusivity and health equity.

## Education, Career Development and Workforce Development

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### Transitioning PhD Journal Club and works-in-progress sessions to a translational science-focused format: Enhancing relevance and increasing engagement

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**OBJECTIVES/GOALS:** The expanding emphasis on translational science necessitates a rethinking of traditional academic formats. To align with the central themes of CTS, we have redesigned our PhD journal club and WIP sessions, introducing novel and innovative approaches that enhance the relevance of these activities to real-world scientific and clinical challenges. **METHODS/STUDY POPULATION:** The newly adapted journal club format for CTS Predoctoral students at Mayo Clinic maintains the traditional focus on literature review but now incorporates a structured analysis of the clinical implications and potential applications of the research. This innovation aims to foster a deeper understanding of how basic research findings can be translated into improved patient outcomes and healthcare practices. Similarly, the WIP sessions have been restructured to offer an engaging and dynamic learning environment designed to empower clinical and translational science predoctoral students to effectively present their research while emphasizing the challenges they have overcome, demonstrating the translational potential of their findings, and enhancing their communication skills. **RESULTS/ANTICIPATED RESULTS:** Feedback from participants demonstrates strong support for the new format. Students report a greater engagement with the material and a clearer understanding of how their research can contribute to improving patient outcomes. **DISCUSSION/SIGNIFICANCE OF IMPACT:** These changes accommodate the diverse projects in CTS and embody a commitment to pushing the boundaries of knowledge in CTS. This dual transition marks a significant advancement in preparing PhD students for careers in translational science, ensuring that their research is not only rigorous but also impactful in the real world.

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### Competency-based training in translational research: A curriculum crosswalk for enhanced mentorship in NIH Career Development Programs

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**OBJECTIVES/GOALS:** This poster details the development, implementation, and assessment of a comprehensive competency-based curriculum crosswalk and training plan aimed at enhancing the mentorship and skill development of translational research mentees within the National Institutes of Health (NIH) KL2 and TL1 Career Development Award programs. **METHODS/STUDY POPULATION:** The Center for the Improvement of Mentored Experiences in Research (CIMER) Mentoring Up for Early Career Investigators program, first developed by the University of Wisconsin-Madison, was further adapted by the Frontiers Clinical and Translational Science Institute (Frontiers CTSI). A competency crosswalk illustrates connections between a training curriculum and expected competencies. Developing a competency-based training crosswalk is a strategic approach designed to align mentoring practices with established NIH competencies, including the Seven Characteristics of a Translational Scientist, Mentoring Competency Assessment, Responsible Conduct of Research, Translational Teams, and TeamMAPPS. **RESULTS/ANTICIPATED RESULTS:** The KL2 and TL1 Award Programs serve as ideal platforms for applying the developed curriculum. Implementing a competency-based, evidence-based, and culturally responsive curriculum for research mentee training has shown substantial benefits. Our pilot tests and full-scale implementation within the KL2 and TL1 Award Programs have demonstrated marked improvements in mentee competencies, such as technical skills, research design, and professional development as shown through evaluation feedback. Integrating the new Frontiers CTSI curriculum has fostered more effective and supportive mentoring relationships. Mentees have reported high satisfaction levels with the training program, particularly appreciating the interactive didactics, continuous feedback mechanisms, and reflective practices. **DISCUSSION/SIGNIFICANCE OF IMPACT:** By adopting these recommendations, Clinical and Translational Science Awards (CTSA) and similar programs can improve research mentorship quality and impact, fostering a diverse cohort of skilled researchers. Implementing these strategies in CTSA mentorship programs offers a model for broader application in research training.

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### Development and implementation of a Pilot Summer Training Program for clinical research professionals

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**OBJECTIVES/GOALS:** Skilled clinical research professionals are essential to efficient and effective research teams, but many