

significantly to the field of translational research and science through its focus on advancement and implementation of an innovated model in its early stages, including how researchers and translation science entities can incorporate this model into their own work beyond the traditional use of case studies.

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### Caregivers Perspectives on Multidisciplinary Clinic Visits for Duchenne and Becker Muscular Dystrophy

Kindann Fawcett<sup>1</sup>, Cade Haynie<sup>1</sup>, Tiffany Roby<sup>1</sup>, Ellen Wagner<sup>2</sup>, Rachel Schrader<sup>2</sup>, Ryan Fischer<sup>2</sup>, Aravindhan Veerapandiyani<sup>1</sup>

<sup>1</sup>UAMS <sup>2</sup>PPMD

**OBJECTIVES/GOALS:** This study surveyed parents and/or caregivers of children with Duchenne and Becker muscular dystrophy (DBMD) to obtain their perspectives on experiences during multidisciplinary team (MDT) clinic visits. The goal was to improve DBMD care by identifying positive and negative aspects of the visits. **METHODS/STUDY POPULATION:** Multidisciplinary care models have been widely used in many disciplines, as they provide excellent opportunities for patient-centered care (PCC). Survival of patients with Duchenne muscular dystrophy (DMD) has improved with multidisciplinary care. As the model continues to evolve, additional services and disciplines are added, and exploring parents' and caregivers' perspectives on multidisciplinary care for patients with DBMD must be assessed. A survey, via a non-identifiable Redcap link, was emailed to registered parents/caregivers through The Duchenne Registry provided by Parent Project Muscular Dystrophy (PPMD). The survey contained questions concerning the children's demographics, medical information, knowledge, and perspectives on MDT visits. **RESULTS/ANTICIPATED RESULTS:** A total of 186 parents/caregivers of DBMD patients responded to the survey. Respondents were white (83.1%), bi/multi-racial (9.3%), African American (1.6%), and other (2.7%). The average travel distance to the care site was 228.37 miles. Most respondents (75%) had their visits within one day, but 25% had visits over  $\geq 2$  days. 89.0% of respondents preferred a single MDT meeting with their child's care providers; 89.4% indicated they had enough time with each provider, 86.1% were satisfied with the MDT care, and 81% said they received enough information prior to the visit. Scheduling difficulties were rare for MDT visits, but common when arranging care with providers not included in the MDTs. **DISCUSSION/SIGNIFICANCE:** MDT clinic visits enable patients to see multiple caregivers in a single visit. Our study suggests that parents and caregivers of DBMD patients prefer to have MDT visits and are satisfied with the care. This information will support the DBMD community as they continue to advocate for MDT visits.

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### Changes in Leadership Competencies and Value Added through Participation in a Translational Science Research Leadership Academy

Anna Perry, Douglas Easterling, Elisha Pittman, Michael Nader, Barbara Nicklas

Wake Forest University School of Medicine

**OBJECTIVES/GOALS:** The goal of this evaluation is to assess the value added by offering a CTSA-funded Translational Science Leadership Academy (TSLA) for faculty research leaders. We aim to disseminate lessons learned to help inform best practices for other CTSA hubs promoting team science, specifically research team leadership.

**METHODS/STUDY POPULATION:** Atrium Health Wake Forest CTSI Team Science Program has completed 3 iterations of the TSLA, offered to all faculty leading research teams. Academies were attended by 16 (2020 cohort), 17 (2021) and 18 (2022) research faculty. For the 2022 Academy, the CTSI Evaluation Program, in collaboration with the Team Science Program, implemented a pre-post assessments for all cohort participants. These assessments tracked self-rated competencies changes, satisfaction with the program, and any recommendations for program improvement. All future cohorts will receive these assessments as well. Results will be presented from 15 semi-structured interviews with participants. We will incorporate continuous improvement cycles to gather future feedback, track recommendations and identify future directions for content. **RESULTS/ANTICIPATED RESULTS:** Faculty from all ranks (Assistant, Associate, Full Professor, Department Chair) participated. Leadership competencies were assessed through a pre-post comparison, each self-rated by Academy participants. The 2022 cohort showed an increase in every competency at the time of post-assessment. When asked how they would rate the overall quality of their team leadership, cohort average increased from 4.3 to 5.5 (+1.2 on a 7-point scale) from pre- to post-assessment. Additionally, 80% of post-assessment respondents plan to make (or have already made) changes in their team leadership practices. Through the qualitative evaluation, we expect to gain insight into individual experiences, changes made after participation in the Academy, and what needs still exist for research leaders. **DISCUSSION/SIGNIFICANCE:** Competent team leadership is key to realizing our clinical and research mission. The CTSI Translational Research Leadership Academy is an important way to bolster study team productivity, engagement and satisfaction among research teams. This project provides insight for CTSA hubs interested in promoting team science best practices.

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### Comparing Real-World Impacts of Cohorts using the Translational Science Benefits Model

Nicole Miovsky, Amanda Woodworth, Margaret Schneider  
Institute for Clinical and Translational Science, University of California at Irvine

**OBJECTIVES/GOALS:** The Translational Science Benefits Model (TSBM), developed at Washington University in St. Louis, was used to create a survey to collect group-level data on the real-world impacts of research. It was used with two cohorts of CTSA-supported pilot studies to compare the benefits of campus-community partnerships to campus-only projects. **METHODS/STUDY POPULATION:** Investigators from two funding streams were surveyed: a campus-based cohort (n=31), and a campus-community partnership cohort (n=6). All studies were related to COVID-19. The Translational Benefits Survey collected quantitative and qualitative data for each of the 30 TSBM benefits, in 4 benefit categories: clinical, community, economic and policy. Text provided by investigators to support each reported benefit was evaluated by two coders through a process that required coder consensus to verify a benefit as realized. Verified benefits were aggregated for each cohort, and the percentage of projects per cohort with realized clinical, community, economic and policy benefits were calculated. **RESULTS/ANTICIPATED RESULTS:** Campus-community partnerships did not realize any clinical benefits, whereas 26% of campus-based projects realized at least one clinical benefit. In contrast, campus-community partnerships were more likely to realize community health benefits (17% vs 10% of campus projects) and economic benefits (17% vs 13% of campus projects). We identified a substantial amount of self-

reported benefits (64% across all categories) that were unable to be confirmed as realized using the provided text, which either described activities not relevant to the selected benefit, or lacked critical details needed to verify that the benefit was realized. **DISCUSSION/SIGNIFICANCE:** This project demonstrates that the TSBM can be utilized to collect group-level data and to compare cohorts' real-world benefits. It also illuminates the need to improve the process for verifying self-reported benefits. Sharing data on these real-world impacts has the potential to convey the strengths of translational science to the public.

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### Evaluating the Role of Service Centers in Overcoming TS Barriers: Protocol Development and Pilot Implementation

Yulia A. Levites<sup>1</sup>, F. Lee Revere

<sup>1</sup>Streckalova University of Florida

**OBJECTIVES/GOALS:** Evaluation of the contributions of the CTSI core services to the science of translational science requires focused protocols that are rigorously developed and piloted. The goal of this presentation is to report on the process of protocol development and present the results of protocol pilot implementation. **METHODS/STUDY POPULATION:** Translational science' (TS) is the field of investigation focused on understanding the scientific and operational principles underlying each step of the translational process (Austin, Clin Trans Sci. 2021; 14:1629-1647). A key tenet of translational science is to understand common causes of inefficiency and failure in translational research projects (e.g., incorrect predictions of the toxicity or efficacy of new drugs, lack of data interoperability, ineffective clinical trial recruitment). The navigation steps and mapping to resources for translational researchers provides an opportunity to develop effective navigation tools and study the barriers to effective translation. **RESULTS/ANTICIPATED RESULTS:** The UF-FSU Evaluation Committee has developed and piloted an evaluation protocol that aims to assess the role of CTSI service centers in addressing specific TS barriers. The protocol is informed by interviews with CTSI service users, and is grounded in the Donabedian Framework of Quality Assessment and Lean principles. The pilot implementation of the protocol showed its relevance and applicability across multiple UF-FSU core service centers. **DISCUSSION/SIGNIFICANCE:** The barriers to translational science are not unique but addressing them is rarely within the scope of individual translational research projects. Conversely, service centers within the CTSA institutions are uniquely positioned to address TS barriers thus enhancing to the operational efficiency of the CTS enterprise and promoting the science of TS.

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### Evaluating the ten-year progression of the Miami CTSI Mentored Translational Research Scholars (KL2) Program Awards

Rosalina Das, Jessica Diaz, Patricia Avissar, Sheela Dominguez, Daru Ransford, Alessia Fornoni, Tatjana Rundek, Gwendolyn Scott, Barry Issenberg  
University of Miami

**OBJECTIVES/GOALS:** The goal of Miami CTSI's Mentored Translational Research Scholars (KL2) Program is to identify outstanding early-stage investigators and prepare them to become the next generation of highly skilled independent researchers who translate fundamental knowledge and new technologies from the

laboratory to the clinic and to the community. **METHODS/STUDY POPULATION:** Evaluation of the KL2 program focused on assessing progress in the following areas: 1) scholar productivity during and after graduating from the program; 2) continued engagement of KL2 program graduates in clinical and translational research; scholar productivity during and after graduating from the program; 3) outcomes such as establishing independent research careers, obtaining research funding, and establishing collaborations; and 4) research impact. We used a developmental evaluation approach and benefits-framework model to conduct program evaluation, incorporating both in a program-specific logic model. Bi-annual surveys were used to measure scholar feedback and progress, and utilization of CTSI services. **RESULTS/ANTICIPATED RESULTS:** Since 2013, the KL2 program has trained 21 scholars, 17 of whom have completed training, and four are still in the program. Of the 21 scholars, 52% are female and 38% are underrepresented minorities (URM)—significantly higher than the 12% URM for overall CTSA KL2 scholars. Scholars have 176 total publications related to their KL2 projects and have received \$52.4m in total research funding. In addition, 50% of the projects focused on health disparities. Overall, 48% of KL2 scholars have received large subsequent federal awards including three NIH K awards and six NIH R awards. Scholars actively utilized CTSI services during and after graduation. Programmatic enhancements such as adding institutional scholars and using scholar feedback to improve program resources were also implemented. **DISCUSSION/SIGNIFICANCE:** Miami CTSI's KL2 program has demonstrated success in fulfilling its program goals. The process and outcome evaluation has provided a better understanding of program performance and progress and has demonstrated alignment with CTSI's overall goals on addressing health disparities and its commitment to diversity and equity.

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### Patient perceptions of nonpharmacological pain treatment in the emergency department setting

Rogelio Coronado<sup>1</sup>, Kristin R. Archer<sup>1</sup>, Tyler Toledo<sup>1</sup>, Carrie E. Brintz<sup>1</sup>, Kimberlee Bonnett<sup>2</sup>, David G. Schlundt<sup>2</sup>, Catherine Hobbs<sup>1</sup>, Mira Patel<sup>1</sup>, Alan B. Storrow<sup>1</sup>, Sean P. Collins<sup>1</sup>

<sup>1</sup>Vanderbilt University Medical Center <sup>2</sup>Vanderbilt University

**OBJECTIVES/GOALS:** This study examined patient perceptions on the benefits, barriers, and facilitators of conventional and complementary/behavioral pain strategies that can be offered in the ED setting including physical therapy, mindfulness, acupuncture, and yoga. **METHODS/STUDY POPULATION:** We conducted and recorded semi-structured interviews with 30 patients who presented to the ED with musculoskeletal pain. Interviews focused on patients' perceptions of NP pain treatments, barriers/facilitators to utilization, and recommendations that would promote engagement. A hierarchical coding system was developed and refined using the interview guide, the Theory of Planned Behavior, and preliminary review of the transcripts. The iterative process of developing the coding system allowed us to identify preliminary themes. **RESULTS/ANTICIPATED RESULTS:** Patients believe education on pain and the mind-body connection would give a sense of pain control. Likely barriers to engaging at the ED include lights, noise, interruptions, and uncertainty of their medical status. Post-discharge NP treatment barriers are financial and logistical. Engagement can be facilitated by a desire to avoid opioids, familiarity with meditation practices, and consistent positive communication with the health care team. Patients desire evidence on effectiveness, including testimonials, and suggested NP techniques should be introduced