

and Regulatory Accountability) had high internal validity and good internal factor structure. The congruence between TSE and Scholar self-ratings were uniformly high, and discordance was often a function of “confidence” and “modesty” on the part of the scholar, rather than deficiency. Supporting comments were informative about performance barriers and mechanisms for improvement. Return of results allowed for the exploration of training gaps. Scholars were surveyed to gauge their reaction to the formal feedback. DISCUSSION/SIGNIFICANCE OF IMPACT: This quantification of team science leadership constructs has allowed for A)- the articulation of constructs essential for successful Translational Scientists to acquire during their training, B)- identification of gaps in that training and skill set, and C)- mechanisms for bolstering any identified gaps in these essential leadership constructs. CONFLICT OF INTEREST DESCRIPTION: None

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### **Collaborative Working Retreats for Interdisciplinary Investigators and Engaged Stakeholders as a Tool for Sparking Creativity and Accelerating the Development of Translational Research Projects**

Elaine A Borawski, PhD<sup>1</sup>, Anna Thornton Matos, Ms<sup>1</sup>, Meredith Goodwin, Rachel Ann Gardenhire<sup>1</sup>, and Briana McIntosh

<sup>1</sup>Case Western Reserve University

OBJECTIVES/GOALS: As part of the Cleveland CTSA, “Collaborative Working Retreats” have been developed for the purpose of being a catalyst to move groups of interdisciplinary investigators and stakeholders to collaborative research teams with feasible and actionable translational research projects. METHODS/STUDY POPULATION: Groups of interdisciplinary investigators with engaged stakeholder(s) were invited to apply. Selected groups participated in a 4-hour, professionally facilitated retreat, tailored to the unique needs of each team. In addition to the facilitator, a graphic recorder was utilized to capture ideas and aid in decision making by creating a visual narrative linked to the team’s overall vision. Teams were charged with generating three translational research projects and writing a formal Team Action Plan (TAP) by two months post retreat. Retreat participants were asked to complete a survey to evaluate the retreat, and structured interviews were conducted with team leaders 4-6 months post retreat. RESULTS/ANTICIPATED RESULTS: Six groups were awarded retreats, comprised of 48 investigators (representing all schools in the university and 3 of 4 affiliated hospital systems) and 28 stakeholders for a total of 76 participants. 45% completed the followup survey. 77% said they would recommend the service to other teams or would use it again themselves and 97% stated their team benefited from having a facilitator. At 2 month follow up, one team had completed the TAP and subsequently applied for federal funding. However, 4 of the remaining 5 teams indicated that they had made significant progress, attributing progress to their retreat time. Each teams’ progress is being tracked for 2 years, using a newly developed metric. DISCUSSION/SIGNIFICANCE OF IMPACT: Facilitated retreats appear to serve as an important catalyst for progression of translational research projects, providing needed time and support for brainstorming and planning. Lessons learned, pre-retreat work, and tools for tailoring retreat content and tracking progress will be presented.

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### **Developing team science for practical applications of artificial intelligence in health systems to improve value and outcomes: A case study in reducing avoidable emergency department use**

Vladimir G. Manuel<sup>1</sup>, Eran Halperin<sup>2</sup>, Jeffrey Chiang<sup>2</sup>, Kodi Taraszka<sup>2</sup>, Laura Kim<sup>2</sup>, Naveen Raja<sup>2</sup>, Christopher Saigal<sup>2</sup>, Lily Roh<sup>2</sup>, and Eleazer Eskin<sup>2</sup>

<sup>1</sup>David Geffen School of Medicine at UCLA; <sup>2</sup>University of California, Los Angeles

OBJECTIVES/GOALS: Health care systems are complex, dynamic, and varied. Advances in artificial intelligence (AI) are enabling healthcare systems to use their own data to elicit patterns and design suitable interventions. To realize this potential, computer scientists and clinicians need an effective, practical, and replicable approach to collaboration METHODS/STUDY POPULATION: In this study, computer scientists partnered with clinicians to investigate predictors of avoidable emergency department use. The team sought an approach to computational medicine that could increase the relevance and impact of prediction to solve pressing problems in the health system. The team adopted an emergent architecture that engaged system leaders, computer scientists, data scientists, health services researchers, and practicing clinicians with deep ambulatory and inpatient knowledge to form the initial questions that shaped the prediction model; to understand nuances of coding and recording in source data and the implications for models; and to generate insights for promising points of intervention. The team recorded decisions and challenges as it progressed to analyze its function. RESULTS/ANTICIPATED RESULTS: Most avoidance models focus on a narrow time period around target events, or on high cost patients and events. This interdisciplinary team used their insights into the health system’s workflows and patient population to adopt a longitudinal approach to their prediction models. They used AI to build models of behavior in the system and consider prevention points across clinical units, time, and place. The holistic, systemwide focus enabled the team to generate insights that the system leaders and subsequently specific clinical units could apply to improve value and outcomes. A facilitated team process using learning system and cooperative network principles allowed a large and modular interdisciplinary team to build a transparent AI modeling process that yielded actionable insights into hypercomplex workflows. DISCUSSION/SIGNIFICANCE OF IMPACT: An architecture for involving diverse stakeholders in computational medicine projects can increase the relevance and impact of AI for solving care delivery problems in complex health systems. Translational science and computational medicine programs can foster this type of engagement and encourage a whole system perspective.

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### **Effect of individual characteristics, healthcare access, and built environment on care coordination outcomes related to cardiovascular disease risk factors**

Sonal J. Patil<sup>1</sup>, Yan Wang, PhD, Angela Johnson, David Mehr, Randi Foraker, and Robin Kruse

<sup>1</sup>Washington University in St. Louis, Institute Of Clinical and Translational Sciences

OBJECTIVES/GOALS: We examined how individual characteristics and characteristics of the socioeconomic and built environment were