The course is listed in the Communiversity catalogue which is distributed in hardcopy (over 30,000) and email each semester. The course will be taught by a longstanding community member and research coordinator at the University of Cincinnati. Each session will be highly interactive including videos, role-play, and discussion of the presented research topics. Evaluation will occur both pre and post-session, along with pre and post-course. RESULTS/ANTICIPATED RESULTS: We anticipate 20–30 participants at each of the 4 sessions. We anticipate that we will learn current perceptions of clinical research and barriers to their participation, enable improved recruitment strategies. In addition, we will gain new insights into clinical research needs of the community.

DISCUSSION/SIGNIFICANCE OF IMPACT: Through these interactive sessions, we will learn why community members participate in research and their barriers to participating. Understanding the perception of research by the target community is critical when developing clinical research recruitment strategies. We will also be developing a more educated community towards clinical research. We will also gain great insight into new clinical research directions as indicated by community members.

**Mentor training for KL2 Scholars through vertical integration**

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OBJECTIVES/SPECIFIC AIMS: The NIH states, “The training of the biomedical workforce has always been an integral part of the NIH mission... It takes just one good mentor to influence the career of a new investigator; it takes a robust culture of mentorship across the research community to strengthen, sustain and diversify the entire biomedical research enterprise.” The University of Minnesota’s CTSI- Education core strives to build and maintain a strong culture of mentoring by providing CTSI KL2 scholars an opportunity to mentor an undergraduate student participating in the Pathways to Research Program (PReP). Using this mentoring model, participants gain valuable benefits and CTSI’s culture of mentoring is strengthened. METHODS/STUDY POPULATION: Participating KL2 scholars are matched with a promising PReP scholar for a 12-week mentored research project. The PReP program selects top candidates through a highly competitive application process. Students work in their mentor’s lab full-time, funded by CTSI-Ed. They engage in additional activities together including a mentor/mentee, an interview activity and 2 social events. Junior faculty scholars are asked to participate as judges at CTSI’s Poster Session and are invited to present at PReP seminars. The program culminates with the announcement of the Junior Mentor of the Year, in which scholars nominate their mentors for the award. Junior faculty mentors receive support through a training course, Optimizing the Practice of Mentoring, mentor orientation and a roundtable discussion with the program director and other mentors. The program’s infrastructure is designed to foster mentoring relationships through faculty and staff support. Mentor junior faculty receive one-on-one coaching when faced with difficult mentoring situations and are recognized for their mentoring successes. RESULTS/ANTICIPATED RESULTS: Junior faculty mentors highly rate the program on the following points; the experience was a good use of time, I am satisfied with my experience, I would recommend this program to faculty colleagues and students. Undergraduates and Professional students rated their mentoring relationship as 1 of 3 best outcomes of the program. In exit surveys, their highly rated program success includes having a network that helps move their career forward, and confidence to persist through training to become a successful researcher. DISCUSSION/SIGNIFICANCE OF IMPACT: Creating a culture of mentoring is important to the strengthen, sustain and diversify the biomedical research workforce. This mentoring model contributes to the mission while vertically integrating CTSI-Ed’s KL2 and PReP programs. On an individual level, junior faculty improve communication and management skills, develop leadership qualifications, increase their network, provide a sense of fulfillment and personal growth, and reinforce their own skills and knowledge of subject. They are also provided a top undergraduate student worker fully funded by the program.

**Sinai MedMaker Challenge: A model of experiential team science education**

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OBJECTIVES/SPECIFIC AIMS: Innovation in healthcare is increasingly dependent on technology and teamwork, requiring effective collaboration among diverse disciplines. However, large knowledge barriers exist between these diverse disciplines which hinders effective communication and the innovation processes. We organized an intensive team-based competition event, Sinai MedMaker Challenge, that engaged individuals with a wide range of backgrounds in medicine, biomedical research, computers science, and engineering to collaborate in solving medical problems with technology-based solutions. The learning objectives were to: enable participants to identify healthcare problems which lend themselves to technology-based solutions; delineate key behaviors critical to interdisciplinary team success; identify optimal strategies for communicating in teams; engage and inspire participants to apply knowledge of technology to meaningfully impact clinical care and well-being. METHODS/STUDY POPULATION: The Sinai MedMaker Challenge was a 48-hour team-based competition, modeled after previously held health “hackathons.” Adapting from guidelines provided by MIT Hacking Medicine, the event gathers participants from diverse backgrounds (clinicians, medical students, graduate students in biomedical science and humanities, software developers, engineers, and others), for the purpose of utilizing technology to address pressing problems in the diagnosis, management and/or treatment of pain and/or fatigue. The event flow can be outlined as follows: Phase 1—pre-event brainstorming via Slack and Sparkboard online platforms; Phase 2—problem review with clinical experts; Phase 3—solution pitches, formation of teams, development of prototype solutions; Phase 4—presentations and prizes awarded. The event was sponsored by ISMMS Institutes and Technology Companies. Mentors roamed throughout the event to support the teams in the technical, clinical, and business development aspects of their solutions. RESULTS/ANTICIPATED RESULTS: In total, 78 participants formed 14 teams worked on the development of software and hardware prototypes (apps/websites, devices, wearables) to address a variety of pain and fatigue problems, culminating in final pitch presentations to a panel of judges comprised of academic experts; innovators and entrepreneurs in the technology start up space. Award recipients were: (1) PT partners, a wearable device for monitoring physical therapy post knee replacement; (2) SickleMeNot, an interactive, multimodal website/app for children designed to assess, monitor and manage pain; and (3) BioBurn, a functional biofeedback system, to treat chronic back pain. Evaluations revealed a high-degree of satisfaction with the event. Several teams continue to develop their prototypes. DISCUSSION/SIGNIFICANCE OF IMPACT: The Sinai MedMaker Challenge (1) was a compelling and productive forum to bring together students, trainees, faculty and other stakeholders to explore tech-based solutions for management, monitoring, and treatment of pain and fatigue; and (2) can be repeated annually, fostering a “Community of Practice,” and expanded to offer pre and post event opportunities to encourage iterative learning and ongoing creative output.

**ETHICS**

**“Understandable to the subject”: Plain language IRB informed consents**

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OBJECTIVES/SPECIFIC AIMS: Develop a plain language informed consent template that meet IRB and regulatory requirements. Evaluate the effectiveness of the template at improving the readability of informed consents. Field test the informed consent with low health literacy. METHODS/STUDY POPULATION: We conducted a retrospective analysis of over 200 UAMS IRB approved, investigator initiated informed consents from 2013 to 2015 to determine the readability before intervention. The mean grade level readabilities were derived from the results of 3 readability formulas (Flesch–Kincaid, SMOG, and Fry) using open-source readability tools. A plain language informed consent template that meets IRB and regulatory requirements was developed, adhering to health literacy best practices for written communication. The template was made available to investigators as an optional resource, and IRB committees were trained on use of the template. In addition, a focus group will be conducted to qualitatively assess understandability of the template with study participants identifying as having inadequate literacy. Data analysis will include 14 grade readability assessment of IRB approved informed consents post intervention with and without use of the plain language template, as well as qualitative feedback from focus group participants. RESULTS/ANTICIPATED RESULTS: The retrospective analysis revealed a mean readability of 10th grade for IRB approved informed consents from 2013 to 2015 (n = 217). The readability of the developed plain language template was 5th grade. Preliminary post intervention results show adoption of the template by investigators (n = 16)}