

grants. We adapted an established K Club model from the University of Pittsburgh with high success rates to Hispanics in Puerto Rico (PR). The K to R Club's goal is to increase the successful submission of K- and R-type NIH grants in the HCTRECD Program. METHODS/STUDY POPULATION: K to R Club is an inviting environment that exposes scholars to established funded investigators in PR from all career stages. It creates a forum to discuss different grant mechanisms and explains the selection, submission, and review process. The Club promotes the right mentor selection and mentoring team. It facilitates networking with principal investigators local/external to share their success stories, career development experiences, and grant submission tips. It offers mock review sessions of sections of the grant proposal to provide feedback from invited established investigators during the grant writing process. The Club meets 1–2 times per month in-person or virtual for 1 hour and anonymous evaluations were submitted after each session. RESULTS/ANTICIPATED RESULTS: K to R Club 1st year had 11 sessions with 15 invited speakers. Sessions included: 1 Kickoff, 2 funding opportunities, 2 coaching, 7 successful stories of Diversity Supplement, and F99/K00, K22, K23, K99/R00, R01, and R21 awardees. The highest attendance was for the Kickoff (48). Evaluations response rates ranged from 15 to 62 with the highest participation from women (78% vs. 22% men). Most respondents were PhD (45%) and MD (29%). K to R Club sessions were rated as excellent (84%), 74% agreed that the sessions changed their knowledge very much, and 78% reported it changed their ability to apply for funding very much. Interest in submitting NIH supplements in 12 months was higher (68%) vs. 6 months (48%). Interest in requesting mock reviews for K or R grants in 6 months (91%) vs. 12 months (17%). DISCUSSION/SIGNIFICANCE OF IMPACT: The 1st year of the K to R Club had an active attendance and increased the interest in submission of NIH grants. We are working on strategies to increase evaluations' response rates to improve and address future session needs due to the low response rates recorded. Currently, the semester is full of mock review sessions for grant applications (4 Ks and 1 R01).

### **The Utah CTSI SLCSE-BEES Program: Boosting engagement through experiences in science**

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OBJECTIVES/GOALS: The University of Utah (U of U) CTSI has partnered with the Salt Lake Center for Science Education (SLCSE), a Title I school serving grades 7–12. Goals of this partnership are to 1) bridge the gap between K12 classroom learning and real-world applications and 2) better prepare students from under-represented populations to enter the STEM workforce. METHODS/STUDY POPULATION: To cultivate science self-efficacy in grade 7–12 students, experiences included interviewing a scientist for 7th graders, model organism lab visits for 11th graders, and summer research internships for rising seniors. Additional engagements on the SLCSE campus included U of U guest speakers, U of U faculty

and student participation in afterschool STEM clubs, U of U graduate students' mentorship of high school science fair projects, and U of U faculty support in establishing a zebrafish lab for biology students. All students were surveyed at the start and end of the academic year using DEVISE evaluation tools developed by the Cornell Lab of Ornithology. Students participating in the summer internship program also completed the mentoring competency assessment before and after their ten-week internship experience. RESULTS/ANTICIPATED RESULTS: During the first year of a seven-year longitudinal study, 380 SLCSE students engaged in at least one science experience through the Utah CTSI-SLCSE partnership named BEES (Boosting Engagement through Experiences in Science). Pearson product-moment correlations were used in preliminary studies to examine relationships between experience type and student motivation and interest in STEM. Field trips to U of U STEM labs and of U graduate students' mentorship of high school science fair projects were significantly correlated with student motivation and interest, while the interview-a-scientist experience was significantly correlated with motivation only. The Utah CTSI-SLCSE BEES Program's impact on student STEM success continues to be assessed using surveys and student reflections. DISCUSSION/SIGNIFICANCE OF IMPACT: Access to science for underserved K–12 students is a critical issue in addressing educational equity and improving pathways into STEM fields. Many students attending SLCSE are low-income minority students with limited access to role models in STEM. The BEES partnership provides impactful opportunities for students to gain access to STEM.

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### **Enhancing community-engaged research through the adaptation and integration of the Chicago Citizen Scientist Program**

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OBJECTIVES/GOALS: Citizen Science (CS) recognizes the vital role that community members play in research, centering their unique lived experiences and perspectives across the research cycle. We aim to enhance community-engaged research (CEnR) by adapting a CS Program at the University of Illinois Chicago (UIC) Center for Clinical and Translational Science (CCTS). METHODS/STUDY POPULATION: The CS Program, launched in response to COVID-19, was designed/piloted for Chicago community members interested in research careers, developing evidence-based practice skills, and/or partnering with academic, community, and/or public health organizations. To inform program adaptation, we are conducting a landscape assessment, including 1) inventory/annotation of existing curricular materials, 2) review of peer-reviewed literature, 3) website extraction of existing CS programs' key components, and 4) interviewing key informants. An Advisory Board of prior CS instructors/alumni will guide curriculum adaptation, coordination, and fidelity. We will also identify strategic internal/external UIC organizational partnerships to collaborate on establishing, developing, and conducting the program. RESULTS/