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The Formation of the ACTS Diversity, Equity, and Inclusion Committee to Increase Belonging

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OBJECTIVES/GOALS: The Association of Clinical and Translational Science (ACTS) chartered a Diversity, Equity, and Inclusion (DEI) Committee to prioritize activities to support, develop and report on metrics for measuring progress toward DEI goals. This poster aims to describe the formative process toward prioritizing DEI in society's efforts. METHODS/STUDY POPULATION: In 2021, the ACTS chartered the DEI Committee. Two ACTS Board of Directors members chair the committee, and members represent 10 academic institutions committed to prioritizing DEI. Members participated in a Human-Centered Design process to develop the committee's mission, goals, and activities. The committee determined areas of opportunity for ACTS to increase DEI by identifying challenges to support DEI in clinical and translational science. The chairs facilitated a discussion using Mural to foster an interactive strategy to engage members in conversations that respected individual experiences, promoted a discussion of actions that ACTS as a society, and determining metrics for measuring DEI. RESULTS/ANTICIPATED RESULTS: We plan to present the committee's efforts to create the ACTS mission statement and strategies to priority to DEI. We will describe current and future activities to engage historically underrepresented members and academic institutions in ACTS programs. Based on the committee's work, ACTS has taken systematic approaches toward social justice and is beginning to determine new ways of engaging members. DISCUSSION/SIGNIFICANCE: Scientific societies that prioritize DEI increases equity and belonging across members. ACTS is at the forefront of advocacy, policy, and social justice effort. The DEI committee is positioned to aid ACTS in increasing DEI across the clinical and translational science spectrum.

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Thoughts on Designing a Summer Internship for Undergraduates at an Academic Medical Center

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OBJECTIVES/GOALS: The overall goal is to provide tips and suggestions for designing a summer internship program for undergraduates at an institution that only offers advanced degrees. This poster seeks to highlight what worked well and items that can be improved upon from a program that ran for the first time at the University of Texas Medical Branch in Summer 2022. METHODS/STUDY POPULATION: In February 2022, we opened admissions to a summer internship program whose goals are to expose students to statistical design and analysis problems from real research, while providing them with the conceptual and technical tools to address these problems. As such, students should be able 1) to assess study designs for strengths and weaknesses in addressing specific biomedical questions, 2) to use the tools of statistical modeling, data science, and hypothesis testing along with state-of-the-art statistical software to work on problems as well as produce results and conclusions for these problems, and 3) to understand how developing these skills can lead to a wide variety of career opportunities both inside and outside of academia. We ultimately recruited 12 participants in the first summer. RESULTS/ANTICIPATED RESULTS: Based on feedback from participants, we have identified recruitment efforts that worked (and those that need improvement), teaching methods that worked (as well as those that need improving), and ideas for career development sessions (based on questions generated from current participants). Each participant was paired with another student on a research project. Each research project had both a biostatistics faculty mentor as well as a basic science/clinical faculty mentor. We will discuss what worked/what needs improvement from this sort of situation as well. The program culminated in a poster session which was very well received by participants and faculty alike. DISCUSSION/SIGNIFICANCE: This internship program is significant because developing a workforce knowledgeable in biostatistics and data science has been increasingly in demand to improve the efficiency and reliability of biomedical innovation. My providing guidance to others hoping to provide similar programs, we aim to develop such skills in the incoming workforce.

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A CTS team approach to reliable delivery of aerosols to lung cells at the air-liquid interface (ALI), through Dosimetric Aerosol in Vitro Inhalation Device (DAVID)

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OBJECTIVES/GOALS: In vitro models that mimic the human respiratory system are needed to assess the toxicity of inhaled contaminants. Therefore, our goal is to establish a Dosimetric Aerosol in-Vitro Inhalation Device (DAVID) that delivers aerosols in different patterns to human lung cells cultured at an air-liquid interface (ALI). METHODS/STUDY POPULATION: The collection unit of DAVID was modified in this study to accommodate different deposition patterns (spots, annular ring, rectangle & circle). CuO aerosols of varying concentrations were generated using a 6-jet Collison nebulizer for varying time periods to achieve different doses. To quantify the doses that were delivered to cells, the samples were digested with nitric acid & analyzed by Inductively Coupled Plasma-Optical Emission Spectrometry. Following the exposure of A549 cells to

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