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Indiana CTSI Think Tank Program

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OBJECTIVES/GOALS: The Think Tanks' aim to assist faculty innovators along the path from discovery to commercialization; serving as a one-stop-shop where investigators can access advice, pilot funds, and direction toward other available resources within the Indiana CTSI. **METHODS/STUDY POPULATION:** Faculty receive guidance from a pool of advisors in the drug and device industry, as well as their respective university commercialization offices; who serve as an essential resource for a wide range of scientific, technical, clinical, business, and regulatory questions. Investigators submit a simple intake form to connect with a project facilitator for detailed guidance prior to formal meetings. Projects are guided from start to finish with robust tracking and milestone-based funding to help generate data for Investigational New Drug (IND) or Investigational Device Exemption (IDE) applications. Project tracking is conducted using REDCap, which is used for all investigator submissions, with internal processes also tracked in REDCap. **RESULTS/ANTICIPATED RESULTS:** From Feb-Aug 2021; the Think Tanks provided feedback to 15 drug projects and 6 medical device projects. This included 12 from Indiana University; 4 from Purdue University; and 5 from the University of Notre Dame. Interestingly; drug innovations were submitted primarily by tenure track faculty (100%) with a history of NIH/NSF funding (50%); while device innovations were submitted primarily by clinical faculty without a history of NIH/NSF funding (66%). Based on first-round feedback, a total of approximately \$3;400 in pilot funds were provided. Efforts are underway to obtain survey-based feedback from all applicants to date; which will be used to inform future program modifications. **DISCUSSION/SIGNIFICANCE:** The budding "Think Tank" program provides faculty with a broad perspective of the entire drug and medical device development process, helping investigators understand the critical interplay development stages. Future work seeks to enhance faculty engagement in, and understanding of the commercialization process across Indiana CTSI institutions.

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Innovative solutions to streamline data collection, exchange, and utilization in translational research

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OBJECTIVES/GOALS: To determine the utility of any standard, one must first evaluate whether or not the standard meets the needs of the use case it is meant to support. We aim to quantify data availability of the HL7 FHIR standard to support data collection for three state-based registries in a rural state and measure the potential effects on data quality and collection time. **METHODS/STUDY POPULATION:** FHIR mapping will be performed to assess the level of HL7 FHIR standard completeness (or data element coverage) in supporting data collection for the three registries. A systematic

approach, previously developed and used by Garza and Zozus, will be used to map registry data elements to corresponding HL7 FHIR standard resources. FHIR coverage will be calculated as a percentage (total data elements "Available in FHIR" vs. total data elements over-all) and will be observed across different domain areas (i.e., demographics vs. medications vs. vital signs, etc.) in order to identify the domains with the least and most coverage. **RESULTS/ANTICIPATED RESULTS:** Although there have been informatics solutions that relied on data exchange standards to improve data collection, none have actually evaluated the coverage of the standard for supporting the needs of clinical data registries. To address this gap, we aim to evaluate the availability of the HL7 FHIR standard to support data collection for three state-based registries. These results will provide insight into the generalizability of a FHIR-based solution to support data acquisition and processing across multiple registries and demonstrate the potential for seamless exchange of that data for secondary use in clinical and translational research. Quantifying the coverage will also be used to further advance its development in order to meet the data collection needs of state and national clinical data registries. **DISCUSSION/SIGNIFICANCE:** Registries often rely on manual abstraction of EHR data. These manual approaches have had a negative impact on data quality and cost, often due to the complexities associated with collection and mapping of the data to fit the registry model. HL7 FHIR has the potential to address these issues by automating part or all of the data collection process.

Education, Career Development and Workforce

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Increasing Writing Self-Efficacy in Early-Career Researchers from Underrepresented Backgrounds: A Pilot Study

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OBJECTIVES/GOALS: Writers with high self-efficacy perform better than writers with low self-efficacy regardless of writing ability. We investigated whether Shut Up & Write[®] (SUAW), a less-intensive writing intervention, produced gains in writing self-efficacy similar to those reported by intensive, longer-term interventions. **METHODS/STUDY POPULATION:** Meetings were held 2x/wk for 5 wks via Zoom, for 1 hour. Participants were encouraged to attend at least 1x/wk. The 1st few mins were devoted to a discussion of what each person planned to work on. Then, a timer was set and each writer muted themselves, shuttered their webcam, and wrote. When the alarm sounded, everyone returned to the group, and discussed what was accomplished. We measured writing self-efficacy before & after participating in SUAW using a pre-post survey design and used two-tailed paired t-tests to test for significant differences between pre- and post-test means. SUAW participants (n=23) were in 1 of 2 categories: 10 were self-selected LEADS scholars from MSIs, and 13 were medical students in a palliative care program. 86% were URB, 78% were female. **RESULTS/ANTICIPATED RESULTS:** Seven (30%) SUAW participants completed both the pre- and post-survey. Individuals showed significantly higher agreement from pre-to-post