used to assess patient health status. There is an emerging trend of using morphomic variables such as muscle mass and bone mineral density to predict surgical and medical outcomes. In certain cases, it has been shown to predict cancer survival more accurately than conventional staging methods. With the growing popularity of morphomic analysis, it is vital to establish baseline variability against which patient populations can be validated. Of populations receiving radiographic imaging, trauma patients are approximately representative of the general population. We created a reference population of morphomic variables from over 6000 University of Michigan patients presenting with trauma.

METHODS/STUDY POPULATION: Computed tomography (CT) scans were obtained for all patients who underwent scans for trauma indications at the University of Michigan starting from April 1998. High throughput image processing algorithms written in MATLAB 2015a were used to semi-automatically process chest, abdomen, and pelvis CT scans. Scans were referenced to a common coordinate system based on vertebral levels and body anatomy. Measurements of adiposity, muscle group, and bone density measurements were performed at each level. Percentile curves of morphomic measures of body composition by age and sex were created. The reference population dataset is periodically updated and is publicly accessible.

RESULTS/ANTICIPATED RESULTS: As of July 2017, over 6000 patients aged 1–81 years have been included in the Reference Analytics Morphomics Population. Patient CT scans were analyzed at the T10, T11, T12, L1, L2, L3, and L4 vertebral levels. Morphomic measures analyzed include body depth, body cross-sectional area, vertebral trabecular bone density, visceral fat area, fascia area, subcutaneous fat area, central back fat, and psoas muscle area. DISCUSSION/SIGNIFICANCE OF IMPACT: We created reference curves for several morphomic variables from a Reference Analytic Morphomics Population of over 6000 University of Michigan patients presenting with trauma.

Evolution of the interdisciplinary co-citation network supported by the Georgia Clinical and Translational Science Alliance Program from 2006 through 2016

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OBJECTIVES/SPECIFIC AIMS: The National Institutes of Health (NIH) has provided continual support for the Georgia Clinical and Translational Science Alliance (CTSA) since 2006. An overarching goal of the Georgia CTSA is to accelerate clinical and translational research to impact health in Georgia and beyond. Toward these ends, a primary objective has been to support interdisciplinary research projects encompassing 2 or more disciplinary domains. The goal of the present study is to evaluate the degree to which interdisciplinary research projects increased in prevalence during the first decade of funding. METHODS/STUDY POPULATION: We began by using PubMed to identify all publications citing the Georgia CTSA hub (n = 1865), categorizing each article as encompassing 1 or more research domain using a taxonomy derived from the Web of Science. We created 1 network for each of the 10 years with nodes representing research areas and ties between pairs of nodes representing the presence of 1 or more publication integrating both research areas. We conducted longitudinal network analyses using an approach called MCMC MLE Temporal Exponential Random Graph Models, which models the antecedents of networks over time. RESULTS/ANTICIPATED RESULTS: Supporting Georgia CTSA objectives, results suggest the probability of publications connecting multiple research areas increased over time, with substantially greater increases appearing initially as compared to later years. DISCUSSION/SIGNIFICANCE OF IMPACT: This study advances an innovative approach to modeling the system-wide impact of CTSA hub funding.

Exploring the relationships between acculturation, discrimination and function in older African immigrants: A dissertation study

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OBJECTIVES/SPECIFIC AIMS: Acculturation and discrimination are associated with negative health outcomes including functional disability. The effect of these on functional disability in older African immigrants in the United States is not well understood. Toward these ends, this study is to describe and examine the experiences of acculturation, racial discrimination and functional disability in older African immigrants. METHODS/STUDY POPULATION: This study will use cross-sectional quantitative and qualitative mixed methods design. We plan to recruit 300 African immigrants older than 18 years old from diverse African countries, including 100 from each of Nigeria, Cameroon, and Zimbabwe. Participants will be recruited through community centers, churches, and local organizations. The study will assess the relationship between acculturation, discrimination, and functional disability using a combination of quantitative and qualitative methods. The quantitative component will include self-report measures of acculturation, discrimination, and functional disability. The qualitative component will involve in-depth interviews to explore participants’ experiences of acculturation, discrimination, and functional disability. RESULTS/ANTICIPATED RESULTS: We anticipate that the study will provide valuable insights into the experiences of acculturation, discrimination, and functional disability in older African immigrants. DISCUSSION/SIGNIFICANCE OF IMPACT: The findings from this study will contribute to the understanding of the impact of acculturation and discrimination on functional disability in older African immigrants, and inform the development of effective interventions to address these issues.