Diversity, equity and inclusion actions from the NCATS Clinical and Translational Science awarded programs

To the Editor — Diversity, equity, and inclusion (DEI) is a crucial mechanism for enhancing excellence, creativity, and innovation in clinical and translational science and an important mechanism for broadening the scope and innovation of research seeking to solve inequities in health and disease. However, the progress in advancing DEI in science and the scientific workforce during the past decades has been slow.

The COVID-19 pandemic exposed pervasive inadequacies in the ability of our research, health care, and public health systems to respond rapidly to significant health inequities, including excess morbidity and mortality and low vaccination rates among historically marginalized populations. To effectively address deficiencies, the scientific enterprise must examine its readiness to confront underlying structural racism and other biases as foundational drivers of poor health outcomes and a cause of the lack of diversity in science. There is a critical need to: identify more diverse leaders who are prepared to contribute to health equity solutions; train researchers who reflect the diversity of the populations served by research; demonstrate the trustworthiness of science to individuals with diverse lived experiences; and develop human-centered trial designs to rapidly translate what we know works, especially to the most disadvantaged communities.

The National Center for Advancing Translational Sciences (NCATS), established in 2011, supports the national network of 60 Clinical and Translational Science Awards (CTSAs) at US medical research institutions (known as hubs) that work together to improve the translational research process to get more treatments to more people more quickly (https://ctsa.ncats.nih.gov). DEI in clinical and translational science was selected as the primary focus of the NCATS 2020 Annual CTSA meeting. The goals of the meeting were to: discuss the importance of DEI in the field of clinical and translational science; to emphasize the importance of identifying, uncovering, and dismantling sources of systemic racism and bias, which contribute to the lack of DEI in this field; and to engage in a community-wide dialog to generate recommendations for sustainable change.

Table 1 | Priority focus areas and cross-cutting recommendations for improving DEI in clinical and translational science

Priority areas	Institutional commitments and structural changes
	Leadership cultivation
	Training
	Funding for health equity research
	Increased community involvement in clinical trials
Cross-cutting recommendations	Make broad institutional commitments to DEI
	Develop diverse leaders and leadership pathways
	View community stakeholders as institutional partners in research
	Promote learning communities
	Conduct research with and for the community
	Create space for diverse leaders by addressing institutional culture

Supplementary tables available at: https://ctsi.duke.edu/recommendations-for-improving-DEI

A committee with expertise in DEI planned a pre-meeting survey, a plenary session paired with interactive breakout sessions, and a series of smaller follow-up meetings where synthesized findings and recommendations were developed and disseminated. The pre-meeting survey (https://clic-ctsa.org/surveys/fall-2020-program-meeting-pre-meeting-poll) was distributed to all registrants one week before the meeting in November 2020. Survey participants were asked "What barriers to DEI efforts are present with respect to clinical and translational science?" and "What recommendations do you have as solutions to those barriers?". Meeting leaders distilled, summarized, and used these survey responses to spur interactive discussions during planned breakout sessions. After the plenary session, 90-minute interactive breakout sessions were held by video conference, during which participants collaboratively identified strategic priorities. Sessions were recorded, and participants were encouraged to use the online chat function and participate in polls to enhance interaction. Breakout session leaders synthesized discussion transcripts and polls and identified emergent themes, which formed the basis for recommendations.

Among 796 meeting registrants, a total of 231 respondents completed the pre-meeting poll[1]. 54 of 60 unique CTSA hubs were represented. 15% of respondents designated themselves as executive directors or administrators; 13% as hub principal investigators; and over 50% as "other". Most respondents (94%) reported that DEI was either extremely or very important to them. Similarly, most respondents (86%) said that they were extremely or very committed to improving DEI efforts. The plenary session had 479 attendees with 98 to 133 individuals in each breakout session.

Breakout session 1, 'Enhancing DEI in Clinical and Translational Science Leadership', identified priorities to create translational research climates where people from underrepresented groups have assurance that their leadership expertise will be recognized, valued, and engaged in the scientific enterprise. Breakout session 2, 'Enhancing Diversity and Inclusion in Translational Science Training Programs', identified ways to enrich the clinical research workforce by developing diverse and inclusive career training programs as well as strategies for organizing research programs to diversify the investigator

workforce at CTSA program hubs. Breakout session 3, 'Enhancing Diversity and Inclusion in Translational Science Health Disparities/Equity Research', identified strategies to facilitate health disparities research efforts with a recognition of the urgent need to conduct research addressing pervasive structural inequities exacerbated by the COVID-19 pandemic. Breakout session 4, 'Enhancing Diversity and Inclusivity in Clinical Trials', identified strategies for recruiting and retaining participants from underrepresented racial and ethnic groups in clinical research. Numerous specific priorities for CTSA programs emerged. Several cross-cutting recommendations were also identified, which reflect themes that are broadly applicable to institutional processes and policies, community-centered activities, program-specific training initiatives, and social, behavioral, cultural and/or environmental workplace considerations both within and beyond CTSA settings. Each recommendation addresses infrastructure and programmatic shifts that are needed to challenge and redress systemic and institutional racism and other biases (Table 1).

For institutions, cross-cutting recommendations focus on human resources and governing policies of academic research institutions as well as their administrative policies. Community-centered recommendations address the integral role of meaningful community engagement in efforts to advance health equity among under-served communities, along with processes for designing and conducting research. Additional recommendations address the work environment and social spaces in clinical and translational science, including situations and groups where microaggressions and biases are frequently embodied in day-to-day interactions. Recommendations include a focus on acknowledging biased perceptions and power dynamics that could hinder DEI efforts, as well as the importance of including individuals from diverse lived experiences in institutional governance and research studies.

The recent momentum to improve DEI in clinical and translational science has generated a robust national dialog that reflects an enthusiasm to make progress. These recommendations, generated by the national CTSA consortium, will help to lay a foundation for promising, impactful, and sustainable actions. Commitment from multiple key stakeholders, starting with CTSA hubs, and systems of accountability will be required to achieve the end goal of a diverse, equitable, and inclusive clinical and translational science ecosystem. ❐

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Author contributions

All authors contributed to the data collection, analysis, and drafting of all aspects of this work.

Competing interests

The authors declare no competing interests.