Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Creating a more racial-ethnic inclusive clinical ultrasound community

Javier Rosario, MD [a,*], Resa E. Lewiss, MD [b], Lori A. Stolz, MD [c], Marina Del Rios, MD, MS [d], Josie Acuña, MD [e], Srikar Adhikari, MD, MS [e], David Amponsah, MD [f], Almaz S. Dessie, MD [g], Michael Gottlieb, MD [h], Robert D. Huang, MD [i], Jodi Jones, MD [j], Adaira Landry, MD [k], Rachel B. Liu, MD [l], Lorraine Ng, MD [g], Nova L. Panebianco, MD, MPH [m], Anthony J. Weekes, MD, MSc [n], Starr Knight, MD [o]

[a] University of Central Florida, Department of Emergency Medicine, Orlando, FL, United States of America
[b] Thomas Jefferson University, Department of Emergency Medicine, Philadelphia, PA, United States of America
[c] University of Cincinnati, Department of Emergency Medicine, Cincinnati, OH, United States of America
[d] University of Iowa, Department of Emergency Medicine, Iowa City, IA, United States of America
[e] University of Arizona, Department of Emergency Medicine, Tucson, AZ, United States of America
[f] Henry Ford Hospital, Department of Emergency Medicine, Detroit, MI, United States of America
[g] Columbia University Vagelos College of Physicians & Surgeons, Department of Emergency Medicine, New York, NY, United States of America
[h] Rush University Medical Center, Department of Emergency Medicine, Chicago, IL, United States of America
[i] University of Michigan Medical School, Department of Emergency Medicine, Ann Arbor, MI, United States of America
[j] UT Southwestern Medical Center, Department of Emergency Medicine, Dallas, TX, United States of America
[k] Harvard Medical School, Brigam and Women's Hospital, Department of Emergency Medicine, Boston, MA, United States of America
[l] Yale School of Medicine, Department of Emergency Medicine, New Haven, CT, United States of America
[m] University of Pennsylvania, Department of Emergency Medicine, Philadelphia, PA, United States of America
[n] Carolinas Medical Center at Atrium Health, Department of Emergency Medicine, Charlotte, NC, United States of America
[o] University of California San Francisco, Department of Emergency Medicine, San Francisco, CA

Amidst the coronavirus pandemic beginning in 2019 (SARS-CoV-2) and local government shutdowns, the realities of systemic racism have been brought to the forefront. America's history of systemic racism was a pre-existing condition for SARS-CoV-2, exemplified by the disproportionately high morbidity and mortality rates within Black, Indigenous, and Hispanic communities [1]. Understanding that bias, stereotyping, and prejudice play an important role in healthcare disparities, the National Academy of Medicine stated that a key strategy to address these problems is to recruit more medical professionals from underrepresented racial and ethnic backgrounds [2,3].

These national events have raised the question: *What are our responsibilities as emergency physicians, educators, and leaders in the Clinical Ultrasound community to address systemic racism?* The emergency medicine (EM) Clinical Ultrasound (CU) community has an opportunity to candidly identify, discuss, and react to examples of structural racism in the delivery of healthcare. We take this opportunity to amplify the voices of the unheard and direct our focus to our blind spots in order to better serve our communities and better support each other as colleagues.

Underrepresented minorities, defined as Blacks or African Americans, Hispanics or Latinos, American Indians or Alaskan Natives, Native Hawaiians, and other Pacific Islanders, comprise 33% of the US population [4]. The Association of American Medical Colleges (AAMC) defines being underrepresented in medicine (UiM) as those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population [5]. A 2019 AAMC survey reported that 5% of practicing EM physicians identified as Black, 5.8% as Hispanic, and 0.3% as American Indian [6,7]. The AAMC 2019–2020 *Report on Residents: Number of Active MD Residents, by Race/Ethnicity* data shows similar trends in the distribution for EM doctors in training (Table 1) [8]. In a study comparing faculty over a 26 year period, the AAMC found that representation worsened for Black and Hispanic faculty across specialties at the assistant, associate, and full professor levels [9]. At the current rate, it would take nearly 1000 years for Black medical school faculty o reach the same percentage of African Americans in the general population [10].

[8]AAMC Data & Reports, Report on Residents: Number of Active MD Residents, by Race/Ethnicity (Alone or In Combination) and GME Specialty. Washington, D.C. (Adapted and reproduced with permissions 08/19/2021).

Moreover, inadequate UiM representation at academic centers, especially in leadership and mentorship roles, has widespread effects upon faculty development, the overall success of the department, and perpetuates racial health disparities that directly impact underserved communities [11]. UiM faculty and residents who work in departments with limited racial and ethnic diversity are more likely to feel unsupported, isolated, and vulnerable to microaggressions [12,13]. Academic medical centers must recognize and rectify the historical and current impact of racism on communities of color by identifying inequities within the healthcare workforce.s. The EM CU community must do the same.

* Corresponding author.
E-mail address: javirosariomd@gmail.com (J. Rosario).

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Table 1
Race/Ethnicity among Emergency Medicine residents in training

White	67.6%
Black or African American	5.9%
Hispanic or Latino	8.8%
American Indian or Alaska Native	0.9%
Native Hawaiian, and other Pacific Islander	0.2%
Asian	16%

Although no racial-ethnic data has been collected within the CU community, we are no exception to the problem of poor UiM faculty representation. The Emergency Ultrasound Section of the American College of Emergency Physicians (ACEP) was founded in 1996. Of 23 section chairs, none are UiM [14]. The Academy of Emergency Ultrasound of the Society for Academic Emergency Medicine (SAEM) was founded in 2011. Of 11 presidents, none are UiM [15]. The Emergency Ultrasound Section of American Academy of Emergency Medicine (AAEM) was founded in 2017. Of 5 section chairs none are UiM [16]. This drastic underrepresentation in leadership highlights the need for more active and intentional implementation of strategies to increase diversity, and inclusion in the CU community.

Disparities in racial-ethnic representation are also present in CU journal editorial boards, authorship in high impact journal publications, and major conference speakers and organizers. The author groups for two of the most cited, high impact policies in Point of Care Ultrasonography and Advanced Clinical Ultrasound: the 2016 ACEP Ultrasound Guidelines and the 2014 ACEP Ultrasound Imaging Criteria Compendium are comprised of a mostly white author group [17,18].

Change requires a multi-dimensional approach, targeting individual, institutional, and systemic action items. In Table 2, we recommend actions to mitigate racial and ethnic disparities within the CU community. It is our individual and group responsibility to cultivate an environment founded on equity and inclusivity, which fosters innovative work, improves patient care, and encourages diverse ideas.

CU leaders should leverage their privilege to sponsor, mentor, coach, and demand a more inclusive community [19,20]. Conferences, webinars and podcasts should have policies preventing all white and all male panels [21-23]. Racial-ethnic diverse educators can be powerful drivers of change and activism against racism, calling trainees including fellows, residents, medical students, and allied colleagues to action [22].

While we applaud the recent efforts by some journals that have encouraged equity research and have created special issues focusing on racial disparities and potential solutions, we must ensure better racial equity among editorial boards and increase research and publication opportunities for UiM colleagues [23,24]. We need to expand local and national representation while recommending, promoting, and sponsoring our UiM colleagues for leadership positions. Our community needs to remain open to collaboration and discussion, using every resource to learn how to best address these issues of bias and inequity as we encounter them daily. We must learn how to break the silence and be allies and upstanders for our UiM colleagues [25].

We recommend national CU organizations, such as the Society of Clinical Ultrasound Fellowships, ACEP, SAEM, and AAEM collect, analyze, and share data regarding UiM faculty and fellow representation in academic leadership, salary, promotion, awards, and speaking opportunities. Accessible and public data allows for adequate identification of racial inequalities and helps organize the steps needed to take corrective action.

The CU community is full of opportunities to create a more racial-ethnic inclusive community. We are not free of bias, and there is significant work to be done. The time is now to promote systemic change. The strategies we propose can serve as catalysts to cultivate a CU community founded on equity and inclusivity, which fosters innovative work, encourages diverse ideas, and improves patient care.

Table 2
Strategies for increasing diversity, equity, and inclusion

Individual Actions:	
Self-Assessment	Implicit Bias and Privilege assessments [26,27]: • To understand the lens through which one views the world • To recognize how this shapes the way that one interacts with patients, learners, colleagues, friends, and family Diversity, Equity, and Inclusion (DEI) Training: • To learn to identify and respond to microaggressions • To practice allyship and upstander skills
Personal Commitment	• Commit, as an individual to this work - it should mirror the effort invested in other forms of continuing education • Recognize that these skills are of equal value to CU as image acquisition and interpretation • Attend local and national conferences on DEI • Participate in institutional coursework and personal reading
Institutional Actions:	
Recruitment	• Integrate efforts to address disparities into all aspects of recruitment, per LCME and ACGME Guidelines [28,29] • Leverage your privilege and academic capital as a CU leader in your department to promote inclusivity and equity within your academic institution [29] ○ Awareness of faculty and fellow hires within the CU division ○ Advocate for diversity by joining selection committees
Holistic Review	• Evaluate each applicant's commitment to DEI • Consider barriers that individuals have overcome along the journey to and within medicine (e.g., first generation college students, English as a second language) • Ensure the CU division mimics the racial-ethnic diversity of the patient population [29].
Quality Improvement	• Report data on recruitment, retention, tenure, promotion, salary of UiM ultrasound faculty and fellows compared to other racial-ethnic groups [30] • Make this information publicly available to compare and monitor progress at each level [30]
Retention	• Require DEI Training for all CU Division members • Create an environment where conversations regarding inclusion and equity are welcomed • Proactive mentorship for UiM Fellows and Faculty [31]
Term Limits for Leadership Roles	• Enacting term limits is an important and underused mechanism for increasing diversity, equity, and inclusion within academic medicine [32,33] • Consider term limits for CU leadership (e.g., Division/Section Director, Fellowship Director, and hospital-wide leadership) on an institutional and departmental level
Clinical Ultrasound Community Action:	
Create equity in our workforce	Create equity in our workforce: • Prioritize and invest in initiatives that decrease equity gaps • Use systematic processes and clearly defined metrics of success • Implement strategic initiatives to generate a diverse, and equitable environment
Metrics of Success	• Collect and report national CU benchmark data on UiM faculty and fellow representation [30]
Research	• Define race and articulate the reason for its use in study designs [34] • We encourage reviewers and journals to reject and educate authors who cite race as a biologic category [34,35] ○ This language ignores the role of racism in health outcomes

Speakers, leaders and representatives	• Commit to diverse speaker, author, and leadership groups throughout emergency ultrasound organizations, podcasts, webinars, and conferences [35] • Reject the argument that qualified UiM physicians do not exist • Refuse to participate in a non-representative group • Use academic power to ensure UiM physician inclusion • Commit to term limits for all national leadership roles
Mentorship	• Proactively recruit, mentor, and promote UiM in CU [36] • Position UiM junior faculty for future roles within national CU organizations • Provide mentorship and networking with their growth in mind

DEI, Diversity, Equity, and Inclusion; LCME, Liaison Committee on Medical Education; ACGME, Accreditation Council for Graduate Medical Education; UiM, Underrepresented in Medicine.

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