### PERSPECTIVE ARTICLE



## Black Lives Matter in Science Engineering and Medicine

Cato T. Laurencin, M.D., Ph.D.: Winner of the 2020 Herbert W. Nickens Award of the Association of American Medical Colleges, Acceptance Remarks

Cato T. Laurencin 1 (1)

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### **Abstract**

Addressing racism is key in moving forward as a nation and creating a more equitable environment. Within this paper, Cato T. Laurencin, M.D., Ph.D. describes the critical need to shift from diversity, inclusion, and equity (D.I.E.) to inclusion, diversity, equity, anti-racism, and learning (I.D.E.A.L.)

**Keywords** Racism · Anti-racism · Blackness · Anti-Blackness · Anti-Black · Ideal · Black · lives · Matter · Too · Diversity · Equity · Learning · Inclusion

Good afternoon. I'm Dr. Cato Laurencin, and I am the University Professor and Albert and Wilda Van Dusen Distinguished Endowed Professor of Orthopedic Surgery at the University of Connecticut. I am very proud to have received the Herbert W. Nickens Award of the American Association of Medical Colleges (the AAMC). I am equally proud to be able to provide this award lecture.

The title of my lecture is "Black Lives Matter Too in Science, Engineering, and Medicine."

The death of George Floyd and so many, many others has provided new information and a new awakening on issues of racism in America. We've seen, in many ways, what amounts to a sea change in an understanding and appreciation of racism and its effects on America [1].

When we use the term sea change, we are referring to a substantial change in perspective, which affects a society at large on a particular issue, and it can be considered to be similar to a paradigm shift. The term evolved from an older terminology meaning "change wrought by the sea." [1]

If we examine what's happening in terms of racism in America, one way is to examine Google searches. This slide shows the Google search activity for the term racism, either the word itself or expanded versions, such as "what is racism" (Fig. 1).

What we see is that interest in concepts around racism tends to drop off every year in the summer, probably during vacation time, and the peaks are inconsistent, or less consistent, but they appear in November and April, and this is thought to be due partly to elections and primaries [2].

What we do see is a sea change in levels of interest and concern about racism. This chart shows the tracking of racism searches before and after the passing of George Floyd since the start of 2020 (Fig. 2).

What we can see is that there was a dramatic increase in searches after George Floyd died on May 25th of this year. Levels subsequently have moved to approximately 40% of the year's peak. Importantly, that 40% level is still over 6 times higher than the median interest in racism before May 25th [2]. So we are seeing a dramatic shift in concern and a desire for better understanding, in my opinion, regarding racism taking place in America.

The main thesis of my lecture today is that to truly combat health disparities in Blacks and to truly have Black diversity and equity exist, we must understand and combat racism. I'm going to provide a number of different articles that I've written over the years examining the intersection of health disparities, diversity, and racism. A paper I wrote called "Diversity 5.0: A Way Forward" describes the importance of combating racism if we are serious about moving forward with diversity [3]. The editorial entitled "The context of diversity," a piece I wrote in Science, which I'll refer to during my talk, discusses the need



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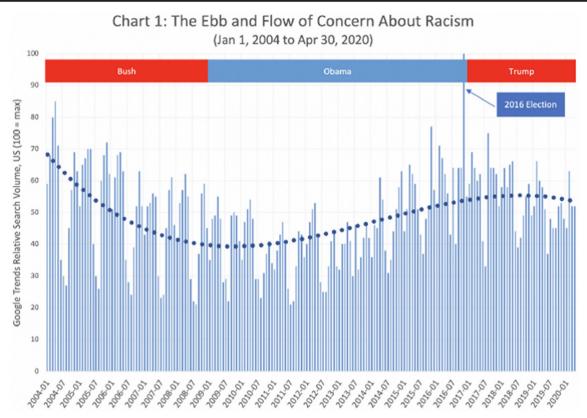


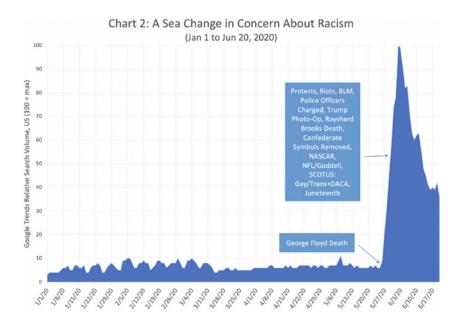
Fig. 1 Shows Google search activity for the term "racism," either the word itself or expanded versions such as "what is racism?"

to again combat racism in terms of achieving diversity and the need for more precision in using the term diversity [4].

"Racial Profiling Is a Public Health and Health Disparities Issue" was a paper that I recently wrote about racial profiling and its health effects on Black people and "A Pandemic on a Pandemic," a piece I wrote on racism and COVID-19 in Blacks in the Journal Cell Systems, refers to the disparities

taking place in COVID-19 and their root causes of racism [5–6]. Then in a new paper entitled *Just in Time: Trauma Informed Medical Education*, we discuss how bias and discrimination in our medical education establishments creates an unhealthy place to grow academically [7]. We adapt principles the trauma informed approach, first realizing this is occurring, recognizing the effects of bias and discrimination

Fig. 2 Shows the sea change after the passing of George Floyd, tracking racism searches since the start of 2020





on students and trainees, responding with appropriate actions and resisting re-traumatization by creating a universal precaution environment, and by addressing those who promulgate bias, discrimination, and racism.

In my lecture, I'd like to talk about racism and its history in America. I'd then like to talk about racism and its effects on the present day. I will discuss our modern definitions of racism, then how messages of racism continue to manifest themselves. My lecture will then discuss racial disparities and the correlates to racism. I will discuss allostatic load and racism. I'd then like to end by describing and discussing my new vision of the ideal pathway for us to pursue in terms of creating a just and diverse society (Fig. 3)

Disparities in health care among Blacks have been known for a great deal of time. A landmark study done by the Institute of Medicine, now the National Academy of Medicine, produced very important study proceedings called "Unequal Treatment: Confronting Racial and Ethnic Health Disparities in Health Care." A key finding of the study was that racial discrimination was the major factor contributing to disparities in care in the setting of equal access [8].

To quote from the Institute of Medicine report, "There is considerable empirical evidence that even well-intentioned whites who are not overtly biased and who do not believe they are prejudiced, typically demonstrate unconscious implicit negative racial attitudes and stereotypes." [8] A number of studies that they quoted in their study referred to this.

In one study examining Medicare beneficiaries enrolled in managed care plans, African-Americans were found to receive poorer quality of care in a variety of measures. This is very important because individuals in Medicare managed care plans will have equal access to care. This is a paper by Schneider that was published in JAMA [9].

Ryn and Burke found that doctors were more likely to ascribe negative racial stereotypes to their minority patients, despite controlling for differences in minority and non-

- Racism in America and Its History.
   Racism and its effects on the present day.
  - 3. Our modern definitions of Racism.
  - 4. How messages of Racism continue to manifest themselves.
- 4. Racial Disparities and Correlates to Racism.5. Allostatic Load and Racism6. The IDEAL Path

**Fig. 3** Shows Dr. Cato T. Laurencin outline to a just and diverse society, otherwise known as the inclusion, diversity, equity, anti-racism and learning (IDEAL) pathway

minority patients' education, income, and personality characteristics [10]. Green et al. found the first evidence of unconscious implicit racial bias among physicians using a measure of implicit social recognition and described its predictive validity [11].

The results of the Green study suggested that physicians' unconscious biases may contribute to racial and ethnic health disparities in the use of medical procedures such as thrombolysis in the treatment of myocardial infarction. The use of implicit bias testing has been done in a number of different settings after the study by Green, and by and large, has consistently found that these biases take place [11].

Unequal Treatment by the Institute of Medicine found that there is considerable empirical evidence that even well-intentioned whites who are not overtly biased and who do not believe they are prejudiced, typically demonstrate unconscious implicit negative racial attitudes and stereotypes [8]. Where else do we see the evidence of bias and racial discrimination against Blacks?

First, we can see where we have been as Black people in America...the cruelty of enslavement. I show a picture of a slave auction house here from the past [12]. (Fig. 4).

The profound history of degradation of Black enslavement was followed by the rise and eventual fall of Jim Crow. Emancipation ended slavery, but not its legacy.

Interestingly, Jim Crow was not a person, yet affected the lives of millions of people. This was named after a popular nineteenth century minstrel song that stereotyped Black people. Jim Crow came to personify the system of government-sanctioned racial oppression and segregation in the USA. I refer you to the pbs.org website on Jim Crow on the rise and fall of Jim Crow as an era [13].

Next came the Second Reconstruction that ended with the passage of the Voting Rights Act of 1965. During the period from the end of World War II until the late 1960s, referred to as the Second Reconstruction, the nation began to correct civil and human rights abuses that continued in American society for over a century.

These changes were really led by very courageous people in the civil rights movement. People like Rosa Parks who famously refused to give up her seat to a white passenger on a public bus in 1955. Her act of civil disobedience really galvanized the US civil rights movement in making the changes that were necessary.

So the struggles of Black folks from slavery and legislated inequality have gone on from 1619 to 1965 and we must never forget. We must never forget the struggles that have taken place. This is a slide from a history book, a version of a history book that said the Atlantic slave trade between the 1500s and 1800s brought millions of workers from Africa to the southern USA to work on agricultural plantations [14] (Fig. 5).

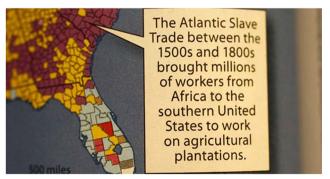
It's important that there is not a revisionist history of slavery and the degradations that took place during time.



Fig. 4 Shows "China, Glass, Auction & Negro Sales" in Atlanta, Georgia (1864) Photo by George N. Gardner



In the history of Black people in America, slavery and legislated inequality represent 85% of our history. There is much work that needs to be done to address, course correct, and move in right direction, as 85% of our history has been with slavery and legislated inequality.



**Fig. 5** Shows an image from a history book that demonstrates the Atlantic slave trade between the 1500s and 1800s which brought millions of workers from Africa to the southern USA to work on agricultural plantations

Well, where are we now? Racism is a major driver of our culture. We can see it in the clothes and messaging placed on this young man. We can see it in messaging on food advertisements. This is a slide of a cereal box in which the only Black face or Brown face in the group is cleaning the floor (Fig. 6) [15].

This was recently received by my wife. It was an advertisement from Barnes and Noble where one can choose The Bad Seed or The Good Egg as a book for children [16]. As one can see, the messaging is that the bad seed is a black seed, and the good seed is a white egg. In America, we are bombarded with messaging regarding race in subtle and not so subtle ways (Fig. 7).

In discussing racism, I refer you to the great work of Dr. Camara Jones on levels of racism and her theoretical framework discussed in "A Gardener's Tale" where she eloquently defines the different types of racism and provides allegories as to how they are caused and what their manifestations are. Institutional racism is defined by her as differential access to



Fig. 6 Shows an image of a cereal box in which the only Black face or Brown face in the group is cleaning the floor, a clear racial message



the goods, services, and opportunities by race. Institutional racism is often evident as inaction in the face of need. With institutionalized racism, there is an initial historical insult. There are structural barriers. There is, as she said, inaction in

the face of need. As a part of the result, there is unearned privilege that takes place [17].

There is personally mediated racism with prejudice and discrimination [17]. Prejudice means differential assumptions

Fig. 7 Shows an advertisement received from Barnes & Noble which demonstrates the subtle and not so subtle race messaging conveying that the bad seed is a black seed, and the good seed is a white egg





about the abilities, motives, and intentions in others according to race. Discrimination means differential actions towards others according to race. This is commonly thought of in the term we know as racism.

As Dr. Jones discusses, personally mediated racism can be intentional or unintentional. It can involve acts of commission, or acts of omission. It maintains structural barriers and societal norms condone it [17].

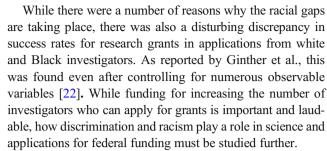
The third type of racism is internalized racism. It is defined as acceptance by members of the stigmatized race of negative messages about their own abilities and intrinsic worth. It's characterized by their not believing in others who look like them and not believing in themselves. Internalized racism reflects societal values. It erodes the individual sense of value and undermines the collective actions of the group [ 17].

Where else do we see evidence of bias and racial discrimination? Well, there are two examples that I think are important to note in our modern times. One is a struck down North Carolina voter ID law. This is a slide regarding the Supreme Court blocking a North Carolina voter ID law. A deadlocked Supreme Court refused to revive parts of a law, found to "target African-Americans with almost surgical precision." [18] The latest news is that this year, an appeals court blocked yet another attempt to disenfranchise Black voters and it is unlikely now that new restrictions will be in place in time for the upcoming election.

The Ally Bank case is a very well-known and famous case where a large settlement was made by Ally Bank to pay for a car loan bias. In the Ally bank case, individuals who were Black and Brown were charged higher interest rates than their scores indicated they should pay. The profit was split between Ally Bank and also the dealers, clearly an example of racism and discrimination taking place [19].

I sit on the Racial Profiling Prohibition Project Advisory Board for the State of Connecticut where we review data on disparities taking place in terms of traffic stops involving Black and Brown people. We know that nationally in reviewing Justice Department statistics, Black driver is 31% more likely to be pulled over than a White driver and 23% more likely than a Hispanic driver to be pulled over. In Connecticut, Black drivers are pulled over at higher rates for "pretext stops" (e.g., air freshener in rear view mirror, license plate abnormalities) than white drivers. The cars of Black drivers are searched at higher rates than white drivers, and those searches result in contraband at lower rates than white drivers [20].

We've talked about the outside world. What about in terms of science, engineering, and medicine? I had the privilege of working on the Advisory Committee to the Director which had a working group on Diversity in the Biomedical Research Workforce. As discussed in the Chronicle of Higher Education, NIH allocated \$31 million to tackle the racial gaps in training [21].



In clinical care, we know that there is a gap in terms of Black and white mortality. Between 1970 and 2004, it is estimated that 2.7 million excess Black deaths took place, making racism a more potent killer than prostate cancer, breast cancer, or colon cancer [23]. We know that combating racism can make a difference in the health of Blacks in America.

There's also the concept outside of the clinical setting, of just living as a Black person. Some people call it breathing while Black. This can be considered in the context of the allostatic load.

The allostatic load represents wear and tear on the body, which increases over time as an individual is exposed to repeated or chronic stress [24]. It represents a cycle of physiological consequences of chronic exposure to fluctuating or heightened neural and neuroendocrine responses that results from repeated or chronic stress. This term was coined by McEwen and Stellar in 1993 [25].

I serve as the Editor in Chief of the Journal of Racial and Ethnic Health Disparities. We published an important paper on racial discrimination and stigma consciousness associated with high blood pressure and hypertension in minority men. Stigma consciousness refers to individual differences in the extent to which targets believed that their stereotyped status pervades their interactions with members of other groups [26].

In this study, lifetime racial discrimination and stigma consciousness were examined to ascertain associations with blood pressure in minority and white middle-aged and older white men. The conclusion was that discrimination and stigma consciousness were associated with common risk factors for chronic disease and premature death that disproportionately affect minorities [26].

Another study that was published in the Journal of the National Medical Association found that allostatic load burden can influence racial health disparities in levels of mortality. In this study, allostatic load burden partially explained higher mortality levels among Blacks independent of socioeconomic status and also health behaviors [27].

So how does the Allostatic load manifest itself as a Black person on a day-to-day basis? I am formally a professor at the University of Virginia and travel back to the area every couple of years. During my last visit, I saw an unprecedented number of bumper stickers all through my time driving through central Virginia portraying the Confederate flag. The Confederate flag for me hearkens back a time of enslavement, Jim Crow,



and continued racism. As a Black person, these may not only have personal emotional effects, but wear and tear health effects.

An article in the American Journal of Hypertension examined whether there was an association between race consciousness and the patient-physician relationship, medication adherence, and blood pressure in urban primary care of patients. In this study that was done by Dr. Lisa Cooper, along with Dr. Camara Jones, race consciousness was defined as the constant psychological vigil and heightened physiological response associated with racial discrimination among Blacks. The hypothesis was that race consciousness could increase their risk of hypertension. What they found was that, among Blacks, race consciousness was associated with a higher diastolic pressure [28].

Where else have we seen dramatic health disparities take place? We've seen it in HIV/AIDS in the African-American community. I wrote a paper entitled "HIV/AIDS and the African-American Community 2018- a Decade Call to Action." As we know with recent statistics, Blacks represent, approximately, 13% of the US population, but in terms of diagnosed cases, 44% of the estimated new HIV diagnoses [29].

An important study by clinicians at Johns Hopkins found that, at the height of the rise of HIV/AIDS, Blacks were treated differently than whites in regard to antiviral prescribing. This was found in the setting of equal access and controlling for socioeconomic status. This raises the idea that the rapid increase in numbers of Blacks with HIV may be partly explained by differential treatment and racism that took place during that period of time [30].

CDC projections right now are that 1 in 20 Black men will be HIV positive. One in 48 Black women will be HIV positive. One in 2 Black men who have sex with men will be HIV positive. One in 11 white gay and bisexual men will be HIV positive and 1 in 99 Americans overall will be HIV positive [31]. HIV is at crisis levels in the Black community and so we must continue to address.

The Black male in America is particularly affected and at risk in a number of different ways. We've talked about HIV/AIDS, but let us discuss incarceration, America incarcerates people. Americans are 5% of the population, and 25% of the people incarcerated in the world [32]. Parenthetically many of the countries with the lowest numbers of incarcerated individuals are actually on the continent of Africa.

When we think about incarceration, right now 33% of those incarcerated in the USA are Black, way more than their proportion in the population [33]. Even beyond our discussion in terms of Black male incarceration, there is extensive data showing a punishing reach of racism for Black boys. New data shows that 21% of Black men that were raised at the bottom of the socioeconomic order were incarcerated according to a snapshot of a single day during the 2010 census [34].

An important study noted that the sons of Black families from the top 1% had about the same chance of being incarcerated on a given day as the sons of white families earning \$36,000. As noted by Ibram Kendi, one of the most popular liberal, post-racial ideas is that the fundamental problem is class, and not race [34]. Clearly this study explodes that idea.

I became very concerned about the fate of Black men in medicine. A number of studies and a number of our articles discussed the sharp drop in Black males in medical schools. In fact, one article said Black male doctors are becoming endangered [35]. They were, and they are.

We wrote a paper called "An American Crisis- the Lack of Black Men in Medicine," and then proceeded working with the National Academies on an initiative to be able to create a workshop on Black men in medicine [36]. We, along with the W. Montague Cobb/NMA Health Institute, moved forward with a National Academy of Sciences, Engineering, and Medicine workshop on The Growing Absence of Black Men in Medicine and Science: An American Crisis. The workshop proceedings are available online for free at the National Academies Press [37]. I had the honor of chairing the workshop and was Rapporteur for the proceedings.

In the workshop proceedings, Dr. Victor Dzau, the President of the National Academy of Medicine, stated "This alarming trend threatens the quality of our health system, hampers progress in improving health for all, and challenges equity and justice." Dr. Camara Jones wrote "Racism, this cultural morass of our nation, is a prime challenge and barrier for Black men along the trajectory." [37]

In discussing racism, one of the key effects that take place is a disregard, disrespect, and dismissal of Black people in America. Perhaps, this is why the Black Lives Matter movement has actually taken shape and grown because this is precisely what that movement is trying to address. The movement's purpose resonates with people, Black and white. So, as for racism, by naming it, learning about its past and present, and working to directly combat it, we may best address racial-based health disparities and also promote racial diversity.

Parenthetically, after our workshop that we had at the National Academy on Black men in medicine, we decided to move forward with a National Academies Roundtable on Black Men and Black Women in Science, Engineering, and Medicine. In my piece published in Science earlier this year, I wrote about the context of diversity and why we need initiatives such as this [4].

In the piece entitled "The Context of Diversity," I referred to the fact that there are many groups that are under the diversity umbrella. With so many groups, it becomes easier for diversity efforts to disregard the historical and present drivers of discrimination and racism that the concept of diversity began with. In my piece, I wrote, "In other words, the greater context of inclusion and equity can get lost, making strides to diversify meaningless." [4]



I further wrote "This latter point is particularly relevant to Blacks in the United States who've experienced slavery, legally enforced segregation and discrimination, and now battle conscious and unconscious racism and mass incarceration. Institutionalized racism, past and present, has resulted in a disregard, disrespect, and dismissal of Black people from all walks of life. This is true in science, engineering, and medicine." [4]

So we have launched the Roundtable on Black Men and Black Women in Science, Engineering, and Medicine. I want to take this opportunity to thank the members of the steering committee who are on this slide, who first worked with me formulating this new entity.

These are the members of the roundtable (Fig. 8 a, b, and c).

There are 31 members, distinguished individuals, from across the country working in medicine, engineering, and science and who are like-minded in terms of the desire to move the needle forward quickly in addressing issues such as combating racism, improving health and promoting diversity.

At the heart of the roundtable are what we call action groups. The aim of these action groups are to foster information sharing and the development of evidence-based approaches, along with engagement with key stakeholders in the broader community of scientists, clinicians, engineers, and administrators. The group works to design and conduct workshops, write papers, and conduct activities for meaningful change.

We have seven action groups right now. The first to be formed was the conscious and unconscious bias action group, addressing how to operate and identify mechanisms for intervention. Second, a pre-K to grad education action group was formed, which identifies disparities in education and the educational pipeline. Third, there is a financing action group, which addresses the financial barriers to higher education and its impact. Fourth, there is a public advocacy, now called a public engagement action group, which determines how advocacy and public engagement can be utilized to bring issues of the roundtable to the forefront and to develop strategies for an increase in public awareness. Fifth, the mentoring and advising action group examines and presents ideas on mentorship programs and pathways. Sixth, an action group on psychological factors, examines the environment and stressors that take place with Black people in science, engineering, and medicine. Finally, a COVID-19 action group, examining COVID-19 in the Black community, has been formed.

The roundtable is responsible for conducting workshops, writing papers, and creating meaningful activities and the action groups serve as the backbone of the roundtable in its functions throughout the year. The group convened our first meeting in December, 2019, and we decided the first activity would be to discuss and address issues of racism.

So, our first action group workshop was on racism. On April 13th and 14th, the workshop on The Impacts of Racism and Bias on Black People Pursuing Careers in Science, Engineering, and Medicine took place. The workshop examined the role of racism and bias in the decline of Black students in science, engineering, and medicine. It explored the historical trends of enrollment of Black students in medical-, engineering-, and science-based schools, and also looked at ways to be able to address these issues.

This is the cover for the proceedings of the workshop (Fig. 9)

The Impacts of Racism and Bias on Black People Pursuing Careers in Science, Engineering, and Medicine. The workshop proceedings will soon be available on the National Academies Press website as an e-book for free [37].

Where should we be headed now? As I hope I am making clear, our understanding and appreciation of the impact of racism in America are vitally important. From there, an understanding of anti-Black racism taking place in America must be understood. Anti-Black racism is the specific kind of racial prejudice directed towards Black people.

There's a very important piece entitled "A Reflection on Anti-Black Racism" by Marlysa Gamblin that I'll be quoting and I refer you to the website in which it appears. "Anti-Blackness," she writes "Devalues Blackness while systematically marginalizing Black people, the issues that affect us, and the institutions created to support us. The first form of anti-Blackness is overt racism, which is upheld by covert structural and systemic racism that categorically predetermined the socioeconomic status of Blacks in this country. The second form of anti-Blackness is unethical disregard for Black people, as seen in the cases of police or civilian brutality against Black bodies." [38]

So what is the ideal path? I want to close by providing some of my vision for where I think we should move as a country in terms of issues of diversity and equity. Right now, discussions of diversity, inclusion, and equity are ubiquitous. While we have had some gains in these areas, they have not sufficiently addressed the issues of racism that we see in this country.

My belief is that we need to move to inclusion, diversity, equity, anti-racism, and learning (Fig. 10).

Anti-racism according to Wikipedia is "A form of action against racism, systemic racism and the oppression of marginalized groups. Being anti-racist is based on the conscious efforts and actions to provide equitable opportunities for all people on an individual and systemic level. People can act against racism by acknowledging personal privileges, confronting acts of racial discrimination and working to change personal racial biases." [39]

By learning, what do I mean? Understanding ways in which Black people are affected by the specific kinds of racial discrimination called anti-Blackness. Understanding the history of Black, Indigenous, and people of color. Moving from



# The National Academies of SCIENCES • ENGINEERING • MEDICINE

### Roundtable on Black Men and Black Women in Science, Engineering, and Medicine

### Cato Laurencin, MD, PhD (NAE/NAM) (chair)\*

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### \* denotes Steering Committee member

Fig. 8 a,b,c Display the current members of the Roundtable for Black Men and Black Women in Science, Engineering, and Medicine

just an ally to what I would call a ride or die partner in the antiracism movement, these are some of the ways that I believe learning can be used in a constructive way to bring about the ideal pathway to move forward.



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Fig. 8 (continued)

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\* denotes Steering Committee member

Fig. 8 (continued)

I'm very proud of our university, the University of Connecticut. We have just initiated a US Anti-Black Racism course. That course, which is now taking place and being offered to all faculty, staff, and students, is a one-credit course on the foundational history and concepts related to systemic and anti-Black racism [40].

It's focused on the foundational concepts related to Black consciousness, Black resistance, Black resilience, and intersectional solidarity. It's particularly focused on the US context. It provides resources at UConn to continue the study, development, understanding, and potentially disrupting anti-Black racism for the collective good. Information on the course is available on the website of the Provost's Office at the University of Connecticut [40].

This is the type of learning environment that can promote diversity, equity, and inclusion for all. Addressing anti-racism is key in terms of moving forward as a nation and creating a more equitable environment. So let us move from diversity,



PROCEEDINGS OF A WORKSHOP

# THE IMPACTS OF RACISM AND BIAS ON BLACK PEOPLE PURSUING CAREERS IN SCIENCE, ENGINEERING, AND MEDICINE

The National Academies of SCIENCES • ENGINEERING • MEDICINE

**Fig. 9** Shows the cover of the proceedings of the workshop on The Impacts of Racism and Bias on Black People Pursuing Careers in Science, Engineering, and Medicine hosted by the Roundtable for Black Men and Black Women in Science, Engineering, and Medicine

inclusion, and equity, to inclusion, diversity, equity, anti-racism, and learning (Fig. 11).

I believe that's the pathway to the future.

Inclusion
Diversity
Equity
Anti-Racism
Learning

Fig. 10 Shows Dr. Cato T. Laurencin, M.D., Ph.D., IDEAL pathway to a just and diverse society



Let's move from Diversity,
Inclusion and Equity (DIE)
to
Inclusion, Diversity, Equity, AntiRacism, and Learning (IDEAL)

Fig. 11 Shows Dr. Cato T. Laurencin, M.D., Ph.D., method of shifting from diversity, inclusion, and equity (DIE) to inclusion, diversity, equity, anti-racism, and learning (IDEAL) pathway to a just and diverse society

I want to again give thanks to all for bestowing upon me the Herbert W. Nickens Award [41]. In this lecture, I have outlined my hope and vision for combatting racial and ethnic health disparities. I hope to be able to work with individuals across the country in the area of inclusion, diversity, equity, anti-racism, and learning, as we put into place an ideal path for achieving a better society.

Thank you.

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**Conflict of Interest** The author declares that there is no conflict of interest.

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