UCSF Graduate Division

Steps Towards Dismantling Systemic Racism and Anti-Blackness in UCSF Basic Science Graduate Programs

Basic Science Graduate Program Task Force Recommendations

September 2021

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Executive Summary

In his national best-selling book *Faces at the Bottom of the Well: The Permanence of Racism*, legal scholar Derrick Bell posits that racism is an "integral, permanent, and indestructible" component of American society and Black people its scapegoats. Bell also notes how despite leading the way for civil rights advances, African Americans have benefited the least. An "irrational but easily roused fear" that Black people will benefit from social reforms for which they've fought has historically led to color-blind approaches to poorly enforced legislation that would benefit all people. The pervasive nature of racism, then, gets avoided. Only by accepting and confronting this reality and working together, says Bell, is escape possible. Black people are the "magical faces at the bottom of society's well"; many allies have reached out over time to help confront anti-Black racism, while most have watched and maintained their commitment to keeping Black people marginalized.[1] This task force accepts Bell's reality and centers the Black experience by reaching down to our most marginalized populations at the bottom to free everyone on the way up.

As such, while this document refers to Black people almost exclusively, the report authors are not ignoring the needs of other marginalized groups. Rather, coming together to confront anti-Black racism is a form of liberation for all oppressed people, and is a common theme woven throughout this report and its recommendations. We use the terms anti-Blackness and anti-Black racism interchangeably, as well as systemic and institutional racism. Moreover, anti-Blackness and institutional racism have significant overlap with the term systemic racism. While systemic racism highlights infrastructures prioritizing one group over the other and institutional racism focuses on the attitudes and beliefs of individuals and groups, racist people reinforce their beliefs through the things they are fortunate to design. As the UCSF Graduate Division Diversity, Equity and Inclusion Primer notes, the actions described by these terms are rooted in systems of control that lead Black people to an early death, and we are determined to eradicate the racist actions outlined throughout this document in our quest to create a more equitable learning environment.[2]

The events of 2020 made it clearer than ever that racism, particularly anti-Black racism, continues to affect all aspects of U.S. society, including higher education and scientific research.[3] Amid Black Lives Matter protests in response to ongoing police brutality towards Black people and general increased societal consciousness about systemic racism, UC San Francisco (UCSF) found itself in a pivotal moment to examine existing programs and imagine new mechanisms to ensure a diverse, equitable, inclusive, and safe learning and training environment for its graduate learners. Specifically, this task force was convened in response to graduate learner concerns regarding graduate learner mentorship, faculty accountability, and gaps in coordination of diversity, equity, and inclusion (DEI) efforts.

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[1] Derrick Bell, *Faces at the Bottom of the Well: The Permanence of Racism* (New York: Basic Books, 1992); Jelani Cobb, "The Man Behind Critical Race Theory," *The New Yorker*, September 13, 2021, accessed September 20, 2021, https://www.newyorker.com/magazine/2021/09/20/the-man-behind-critical-race-theory

[2] D'Anne Duncan, Isaac JT Strong and Aimee Medeiros, "UCSF Graduate Division DEI Primer," accessed September 21, 2021, https://mentoring.ucsf.edu/sites/g/files/tkssra1151/f/wysiwyg/Graduate%20Division%20DEI%20Primer_0.pdf.

[3] Jon Lorsch, Kenneth Gibbs and Alison Gammie, "What Can We Do to Confront Anti-Black Racism in the Biomedical Research Enterprise?" *National Institute of General Medical Sciences*, accessed September 20, 2021, https://loop.nigms.nih.gov/2020/06/what-can-we-do-to-combat-anti-black-racism-in-the-biomedical-research-enterprise/.

This report (1) describes our recommendations for action in two critical areas: **graduate program policy** and **education and training**; (2) details progress to date in the Graduate Division, primarily around increasing opportunities for PhD students to engage in community building, additional DEI curricular opportunities, and new infrastructure investments; and (3) describes additional infrastructure needs that are essential to the growth and sustainability of DEI efforts for graduate learners but are beyond the purview of specific graduate programs and the Graduate Division Dean's Office.

We highlight graduate program policy and education and training because they represent opportunities to combat the primary ways systemic racism is entrenched within institutions, structurally and socially. Systemic racism is *structurally entrenched* within institutions via policies that create unwelcoming, non-affirming, and harmful environments by centering and upholding the ideals and values of whiteness, thus perpetuating the marginalization of Black communities.[4] Often, the impacts of these policies, procedures, behaviors, and attitudes are invisible to those who align with or benefit from the systems that uphold dominant cultures, but lead to detrimental outcomes for Black people in academic institutions. Similarly, systemic racism is *socially entrenched* via mentor-mentee relationships between graduate learners and faculty, in which the traditional ways we train our graduate learners and advance scientific innovation often reproduce and normalize deeply-rooted cultural practices of oppression and exclusion. This is equally true of UCSF, its policies, and its mentor-mentee relationships as it is of any other institution. Thus, it is important to focus on efforts that improve education and training about DEI and anti-Black racism for graduate learners and faculty. Improving DEI education and training will ensure that inclusive mentorship approaches are implemented and will provide understanding of the longstanding societal practices of structural oppression and their pervasiveness in biomedical education and the scientific community. In tandem with the goals of this task force, these efforts to improve policy and training to combat anti-Black racism must be undergirded by significant investments in infrastructure at the University level if we hope to see lasting change, decrease harm to Black graduate learners, and provide a positive training experience.

The main features of the *recommendations* are to:

1. establish goals, strategies, and infrastructure to embed DEI and [anti-racism](#) practices, policies, language and behaviors into all aspects of graduate program policy and education and training to ensure the removal of the structures and barriers that perpetuate anti-Black racism, and disadvantage and disenfranchise all marginalized graduate learners;
2. align our initiatives, programs, and resources, for coordinated and cohesive implementation;
3. define steps to achieve these goals; and
4. develop mechanisms for transparent accountability.

Some initiatives described in this report were initiated in the 2020-21 academic year, and the remaining will be initiated in the 2021-22 academic year. We expect all recommendations to be fully implemented by the end of the 2022-23 academic year.

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[4] Robert Greene II, "Universities and Cities: An Interview with Davarian Baldwin, *Black Perspectives*, May 13, 2021, accessed September 20, 2021, https://www.aaihs.org/universities-and-cities-an-interview-with-davarian-baldwin/.

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Introduction

The U.S. national conversation about racism, sexism, and xenophobia has been amplified and exacerbated as a result of the racialized COVID-19 pandemic, and the increased visibility of the endless violence, police brutality, and trauma inflicted on our Black communities. These horrific events are a painful and daily reminder that racism, in particular *anti-Black racism* – the covert structural and systemic racism which predetermines the socioeconomic status of Black people in this country and which is held in place by anti-Black policies, institutions, and ideologies – permeates all aspects of U.S. society. Such racism is foundational to issues that span our environment, criminal legal system, employment and housing policies, and political systems. Higher education and scientific research in general are also deeply impacted by these issues that hinder the professional advancement, health and well-being, and community safety of our Black graduate learners.[5]

At UCSF the profound events of 2020, specifically the murders of Ahmaud Arbery, Breonna Taylor, Nina Pop, George Floyd, Tony McDade, and many other Black people, shone a spotlight on trauma in Black communities and rampant anti-Blackness, which is defined as societal devaluation and disregard for the lives and humanity of people racialized as Black. As these tragic events – coupled with the destabilizing impact of COVID-19 on learning and training environments – rippled throughout our community, they brought to the forefront the impact of systemic racism in academia. In June 2020, at a virtual Graduate Student-Faculty Diversity Committee meeting, our graduate learners shared their experiences and perspectives on the deficits in the basic science PhD programs. In particular these deficits related to (1) mentoring and mechanisms to resolve conflicts in mentor-mentee relationships, (2) faculty accountability, and (3) gaps in understanding of current diversity, equity, and inclusion programs offered to support graduate learners, at the Graduate Division Dean's Office level and across individual graduate programs. It was emphasized that while these deficits impact all learners, they are particularly harmful for Black graduate learners.[6] In response, we established a task force to develop a set of recommendations to address the deficits in the graduate programs that graduate learners felt were most critical to their success, health, well-being, and safety.

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[5] Thurka Sangaramoorthy and Joseph B. Richardson, Jr., "'Black Lives Matter' Without Black People?" *Inside Higher Ed*, October 16, 2020, accessed September 20, 2021, https://www.insidehighered.com/advice/2020/10/16/many-people-deny-how-pervasive-racism-higher-ed-and-how-its-often-reproduced#.

[6] For more on the use of the term "historically marginalized," please see the UCSF Graduate Division DEI Primer: https://mentoring.ucsf.edu/sites/g/files/tkssra1151/f/wysiwyg/Graduate%20Division%20DEI%20Primer_0.pdf.

Goals

The basic science graduate programs and the Graduate Division Dean's Office (both make up the Graduate Division) are at a pivotal point in the diversity, equity, and inclusion (DEI) work that is being led and implemented at individual and cross-program/dean's office levels. We recognize the enormous cooperative work carried out to date by the graduate learners, graduate program administrators, graduate program faculty, and Graduate Division staff/faculty over the last two decades. This collective work provides a foundation to identify and address the key challenges in dismantling anti-Black racism. Structurally, some of these challenges include the siloing of efforts (by working individually or in isolation), gaps in understanding of what is currently being offered by individual graduate programs or the Graduate Division Dean's Office, and key gaps in coordination at all levels of the institution – ranging from administrators, to individual graduate programs, to faculty, to graduate learners – to effectively make long-term sustainable change in a cohesive and coordinated manner. As a result, we are facing institutional infrastructural deficits: more specifically, an inability to align goals, initiatives, and resources to ensure we are creating and sustaining an equitable and inclusive, anti-racist environment at UCSF, specifically centering on improving the training experience of our Black graduate learners. Focusing our efforts on changes that directly improve the experience of the most marginalized and oppressed population – our Black graduate learners – will naturally create additional support and opportunities for all graduate learners.[7] Thus, the goals of the Graduate Program Task Force are to provide recommendations for integrating best practices already in place with much needed new efforts, to help establish a long-term plan for sustainable change.

Figure 1. *The diagram illustrates a holistic approach to addressing institutional racism to maximize student learning experiences. By highlighting systems of oppression impacting students' academic endeavors and training faculty to identify and react to harm done to learners, Figure 1 shows the task force recommendations to root out racism and create inclusive environments.*

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[7] Keeanga-Yamahtta Taylor, "Until Black Women are Free, None of Us Will be Free," *The New Yorker*, July 20, 2020, accessed September 20, 2021, https://www.newyorker.com/news/our-columnists/until-black-women-are-free-none-of-us-will-be-free.

The main features of the *recommendations* are to:

1. establish goals, strategies, and infrastructure to embed DEI and anti-racism practices, policies, language and behaviors into all aspects of graduate program policy and education and training to ensure the removal of the structural barriers that perpetuate anti-Black racism, and disadvantage and disenfranchise marginalized graduate learners;
2. align our initiatives, programs, and resources, for coordinated and cohesive implementation;
3. define steps to achieve these goals; and
4. develop mechanisms for transparent accountability.

The programs and initiatives outlined in this integration plan will be implemented beginning in the 2021-22 academic year and are expected to be fully executed by the end of the 2022-2023 academic year. It will be essential that all graduate programs and campus leadership, who are committed to graduate education, are (and remain) active in all aspects of the development and implementation of the integration plan. Figure 1 on the previous pa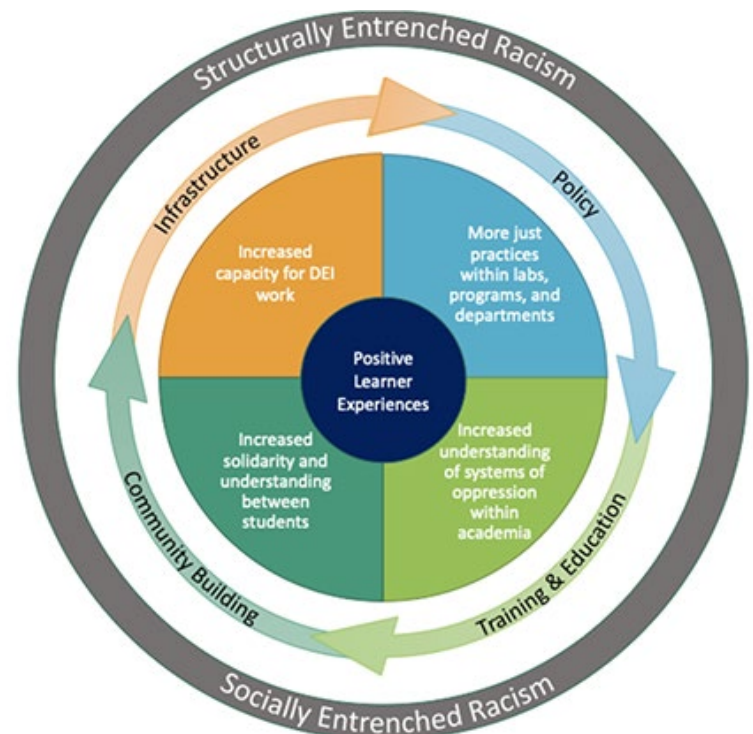ge illustrates a holistic approach to addressing institutional racism to maximize student learning experiences. By highlighting systems of oppression impacting students' academic endeavors and training faculty to identify and react to harm done to learners, Figure 1 shows the task force recommendations to root out racism and create inclusive environments.

Membership

Task Force Members

D'Anne Duncan, Task Force Chair; Assistant Dean for Diversity and Learner Success, Graduate Division; Adjunct Assistant Professor, Dept. of Social and Behavioral Sciences

Carol Gross, Professor, Depts. of Cell and Tissue Biology, and Microbiology and Immunology

Yewande Alabi, Biomedical Sciences PhD Candidate

Elizabeth Bond, Tetrad PhD Candidate

Dina Buitrago Silva, Pharmaceutical Sciences and Pharmacogenomics PhD Candidate

Tejal Desai, Co-Director, Bioengineering program; Professor and Chair, Dept. of Bioengineering and Therapeutic Sciences

Roberto Efraín Díaz, Tetrad PhD Candidate

Nicole Foti, Rosenberg-Hill Fellow and Sociology PhD Candidate

Jason Gestwicki, Director, Chemistry and Chemical Biology program; Professor, Dept. of Pharmaceutical Chemistry

Lisa Gunaydin, Assistant Professor, Dept. of Psychiatry

Ryan Hernandez, Director, Biomedical Informatics program; Associate Professor, Dept. of Bioengineering and Therapeutic Sciences

Alexander Johnson, Director, Program in Biological Sciences (PIBS); Professor/Vice-Chair, Dept. of Microbiology and Immunology

Antoine Johnson, Rosenberg-Hill Fellow and History of Health Science PhD Candidate

Erin Johnson, Rosenberg-Hill Fellow and Sociology PhD Candidate

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Tanja Kortemme, Director, Biophysics Graduate program; Professor, Dept. of Bioengineering and Therapeutic Sciences

Aparna Lakkaraju, Associate Professor, Dept. of Ophthalmology

Anna Lipkin, Neuroscience PhD Candidate

Elizabeth McCarthy, Biomedical Informatics PhD Candidate

Srikantan Nagarajan, Professor, Dept. of Radiology and Biomedical Imaging

Geeta Narlikar, Co-Director, Tetrad Graduate program; Professor, Dept. of Biochemistry and Biophysics

Todd Nystul, Co-Director, Developmental and Stem Cell Biology program; Assoc. Professor, Dept. of Anatomy

Antara Rao, Developmental and Stem Cell Biology PhD Candidate

Matthew Spitzer, Assistant Professor, Dept. of Otolaryngology

Christina Stephens, Biophysics PhD Candidate

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Douglas Wassarman, Chemistry and Chemical Biology PhD Candidate

Chase Webb, Pharmaceutical Sciences and Pharmacogenomics PhD Candidate

Acknowledgments

Initial Findings and Observations

The voices of the Black Lives Matter movement that were amplified in 2020 in response to long-standing police brutality against Black people also raised general societal consciousness about systemic racism.[8] At UCSF, the broader societal discussions provided a pivotal moment to examine existing programs to uncover key gaps as well as imagine new mechanisms to ensure a diverse, equitable, inclusive, and safe learning and training environment for graduate learners. Over the course of the task force's work, several campus partners were consulted to gain more insight into the current programs, initiatives, and accountability mechanisms. Information gained from these discussions with the partners listed below was incorporated to develop and write the relevant recommendations.

- **Denise Caramagno**, CARE Advocate, UCSF Office of Diversity and Outreach
- **Maria Jaochico**, Director, Student Rights and Responsibilities; Restorative Justice Campus Lead
- **Elina Kostyanovskaya**, Gender Equity Trainee Task Force Lead; DSCB PhD Candidate
- **Dyche Mullins**, Graduate Council Chair; Professor, Dept. of Cellular & Molecular Pharmacology
- **Elizabeth Silva**, Associate Dean for Graduate Programs, Graduate Division Dean's Office
- **Isaac Strong**, Director of Graduate Faculty Development, Graduate Division Dean's Office

Based on our discussions over 13 months, the main findings show that the most pressing concerns identified by our graduate learners can be addressed by implementing changes in the following areas:

1. Graduate Program Policy
2. Education and Training
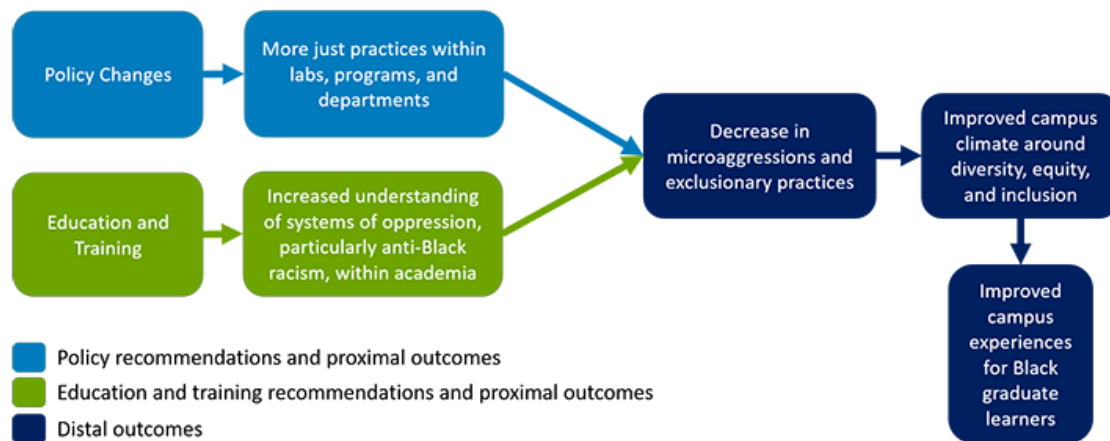
Figure 2. Based on these findings, this diagram outlines how improvements and additions to policy, education and training will impact long-term and sustainable change to the learning and training environment for our Black graduate learners – our most marginalized and oppressed population – and will create additional support and opportunities for graduate learners of color from historically marginalized communities.

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[8] Amy Gunia et al., "The Racial Reckoning Went Global Last Year. Here's How Activists in 8 Countries Are Fighting for Justice," *Time*, May 11, 2021, Accessed September 21, 2021, https://time.com/6046299/fighting-injustice-world/.

Additional Context to Consider

The critical improvements that are within the purview of specific graduate programs and the Graduate Division Dean's Office are described and these are the recommendations that we seek to implement. The Graduate Program Task Force recognizes that there is more work to be done to ensure coordination and accountability, to refine and expand these recommendations, and to facilitate their implementation across the basic science PhD programs at UCSF.

We recognize that some of the major critical areas for improvement are beyond the purview of specific graduate programs and the Graduate Division Dean's Office. These are described in a separate section titled Infrastructure and will be shared with Executive Vice Chancellor and Provost Daniel Lowenstein. We ask that graduate programs and the Graduate Division Dean's Office have a seat at the table and a voice when these areas for improvement are being discussed by UCSF administration and leadership.

Progress to Date

Prior to the start of this task force, several curricula and initiatives were created in direct response to our graduate learners or were in early stages of development and implementation. Specifically, GRAD 210: Diversity, Equity, and Inclusion Academic Leadership; an additional lecture on diversity, equity, and inclusion in GRAD 214: Responsible Conduct of Research; and the NIH Diversity Supplement Matchmaking event were in development prior to the racialized COVID-19 pandemic.

Diversity, Equity, and Inclusion Curriculum for PhD Learners

In 2020, in response to one of two graduate learner petitions, the Graduate Division Dean's Office launched additional diversity, equity, and inclusion curricula for graduate learners, which will continue in 2022:

1. In Spring 2020, issues of diversity, equity, and anti-Black racism were discussed in one lecture of GRAD 214: Responsible Conduct in Research for basic science PhD learners. This will be offered again in Spring 2022. This lecture is led by Assistant Dean of Diversity and Learner Success, Dr. D'Anne Duncan, and first-year graduate learners will continue the discussion of anti-Black racism, diversity, and equity, and its social impacts on scientific research, both within the lab environment and the larger scientific community. First-year graduate learners will explore and reflect on how anti-Black racism is seen in their scientific and personal communities.

2. GRAD 202: Racism in Science was offered in Fall 2020 for all incoming basic science PhD graduate learners as a *mandatory* course and will once again be offered in Fall 2021. Taught by Associate Professor Dr. Aimee Medeiros, this introductory course provides the historical background of systemic racism in scientific research. It explores the relationship between notions of race and science and how scientific research has been informed by and perpetuates anti-Black racism. This course also examines the impact of bias and a lack of diversity in science and ways in which to address these deficiencies. First-year graduate learners will learn the principles of social justice-oriented scientific research and its potential.

3. In Winter 2021, Assistant Dean of Diversity and Learner Success, Dr. D'Anne Duncan, offered GRAD 210: DEI Academic Leadership – a 10-week course followed by implementation of a DEI-focused capstone project, that seeks to prepare our future leaders in biomedical scholarship to *also* be leaders in DEI. This is a one-of-a-kind course in graduate education, and there is no comparable model in the U.S. The course will be offered again in Winter 2022.

4. In Spring 2021, the GRAD 219: Research on Racism in Science mini-courses were offered and taught by our social and population science PhD candidates and UC Pre-Professoriate Fellows: Antoine Johnson (History of Health Sciences PhD program), Rashon Lane (Sociology PhD program), and Carlos Martinez (Medical Anthropology PhD program). These unique mini-courses extend the foundational knowledge of the history of racism in science into the basic science arena, and utilize the deep expertise and research of UCSF's social science PhD scholars on social justice and equity in health and science.

*To monitor the changes made in response to the UCSF graduate student and Black Excellence in STEM (BE-STEM) petitions, view the [Timeline of DEI and Anti-Racism Efforts in the Graduate Division in Response to Learner Activism](#).

Community Circles for Incoming Basic Science PhD Learners

In fall 2020, incoming first-year basic science PhD learners, graduate program faculty directors and graduate program administrators engaged in community circles (small-group sessions) centered around restorative justice practices to establish the importance of creating a community of care during their programs' orientations. Restorative justice practices are based on indigenous practices of coming together to build and strengthen communities, and these are the traditional practices of justice for Indigenous people across the world. Restorative justice practices are philosophical and humanizing approaches that focus on repairing harm, making things right, and restoring the community. Incorporating restorative justice practices into our work helps UCSF create safer spaces for people to be brave and vulnerable in an open dialogue that facilitates healing in the community. UCSF's PRIDE values (**P**rofessionalism, **R**espect, **I**ntegrity, **D**iversity, and **E**xcellence) are aligned within [restorative justice practice](#).

At the end of these community circles, learner, faculty, and staff participants:

- Understand how personal values are related to their professional identity as scientists.
- Understand the role of personal values in decision making.
- Explore how values impact behavior (in communication, interactions, words and action) in a group.
- Develop a written set of community expectations for the cohort.
- Learn how to create space for active listening with empathy.
- Develop awareness of themselves and the way they interact with others.

These sessions were led by facilitators from the Graduate Division Dean's Office with training in restorative justice practices, and will be offered annually as a *mandatory* event going forward. Community circles are a partnership between the Graduate Division Dean's Office, Student Life, and basic science graduate programs.

PROPEL and Diversity Supplement Matching

An exciting development of the past year has been the implementation of two initiatives to promote diversity at the post-baccalaureate level: the NIH Diversity Supplement Matchmaking Event and the UCSF PROPEL Program. The NIH Diversity Supplement Matchmaking Event seeks to place scholars at the post-baccalaureate level who qualify for an NIH Diversity Supplement into full-time paid research positions (e.g. Junior Specialist or Staff Research Associate) in UCSF labs. About 10-15 UCSF faculty plus a similar number of applicants participated in the first event, held in January 2020. At least one person was hired as a direct result of this event. In January 2021,113 UCSF faculty and 92 applicants

from across the country participated in the second annual matching event. Each applicant interviewed with four to six UCSF faculty and 38 applicants (41% of all applicants) were hired into full-time paid research positions.

In addition, several basic science faculty members and a director from SF BUILD established a new DEI-focused post-baccalaureate program, PROPEL (Post-baccalaureate Research Opportunity to Promote Equity in Learning), which many of these new post-baccalaureate scholars have joined. The PROPEL program provides marginalized learners with the research experience and career mentorship needed to be competitive for top-tier biomedical science PhD and MD/PhD programs. PROPEL scholars are employed at UCSF as full-time researchers and participate in a series of scientific courses, career development workshops, and community building activities. We had 13 scholars in our first cohort (2020-2021), and we have 54 scholars in the second cohort (2021-2022). We have applied for an NIH training grant to support the program long-term and have secured over $300,000 from UCSF institutes and the Executive Vice Chancellor's Office to support PROPEL scholars and program activities. In a separate but coordinated effort, through the School of Medicine JUSTICE (**Joining Underrepresented Students and Trainees with Investigators for Collaborations and Education**) group, we have secured an additional $150,000 from the Executive Vice Chancellor's Office to support faculty/scholar pairs who are applying for NIH Diversity Supplements.

The PROPEL program is meant to augment, not replace, other initiatives to increase the diversity of our student population. Many students will feel ready to enter graduate school immediately after they complete their undergraduate studies and will already have a competitive application at that time. We will continue our efforts to identify these applicants and recruit them to UCSF. However, through our outreach efforts, we know that many others are actively seeking out post-baccalaureate research opportunities for a variety of reasons. The PROPEL program can help meet this need. Importantly, admission to the PROPEL program takes place after PhD admissions cycles are complete. The first recruitment event for PROPEL is in late January, which is after most applicants expect to have received PhD program interview invitations, and the deadline to accept an offer from PROPEL is in May, which is after the deadline to accept an offer from a PhD program. The PROPEL program has just completed its first year, so we are not yet able to assess outcomes for the scholars, but we are hopeful that it will provide a clear path for scholars to PhD programs. Together, the matchmaking event and PROPEL will provide increased support for scholars from diverse backgrounds at the post-baccalaureate stage, which is a critical entry point into a scientific career. We are hopeful that many PROPEL scholars will be competitive for our UCSF graduate programs, and we are actively working to introduce PROPEL scholars to the UCSF graduate programs that align with their interests. Our long-term goal with these initiatives is to provide these scholars with the high-quality training that will prepare them to be part of our next generation of scientific leaders.

Infrastructure and Resource Needs

Introduction

This section describes recommendations that highlight key gaps and critical areas for improvement that are essential for the growth and sustainability of diversity, equity, and inclusion efforts for graduate learners *and* are beyond the purview of specific graduate programs and the Graduate Division Dean's Office. These recommendations will be shared with Executive Vice Chancellor and Provost Daniel Lowenstein.

1. Funding for the Office of Diversity and Learner Success, Graduate Division Dean's Office

Background

Past and current manifestations of systemic racism have resulted in Black learners entering graduate school with substantially higher financial and emotional stress compared to white learners.[9] Deficiencies in understanding by the rest of the research community about the impact of systemic racism on Black graduate learners further hinder their inclusion, adding to the isolation already experienced due to their smaller numbers. Within UCSF's Graduate Division, the Office of Diversity and Learner Success plays an essential role in mitigating these negative effects so that Black graduate learners can achieve their full creative potential in graduate school. In this context, Dr. D'Anne Duncan has been responsible for the creation and development of numerous Diversity and Learner Success (DLS) programs, courses, initiatives, and projects to improve the graduate school experience of learners from historically marginalized communities of color, particularly Black communities.

In the four years since Dr. Duncan took on these responsibilities, her efforts have had a transformative effect on the experience of learners from historically marginalized populations. Needless to say, she has enormous trust from learners. Dr. Duncan currently runs all of the Graduate Division's diversity, equity, and inclusion, and outreach programs (National Institutes of Medical General Science's Initiative for Maximizing Student Development Program and UCSF's Summer Research Training Program); acts as an adviser to learners; works with learners and faculty to develop curricula, new initiatives and programs related to diversity and inclusion in the Graduate Division; and manages the associated data reporting and analysis. However, because she directs several courses, programs, and initiatives, Dr. Duncan's efforts are quite stretched. As a result, her unique strengths in identifying and directing the best practices in DEI are not utilized most effectively. Further, if we do not find ways to institutionalize these programs, the progress being made by Dr. Duncan could easily be reversed.

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[9] Greta Anderson, "The Emotional Toll of Racism," *Inside Higher Ed*, October 23, 2020, accessed September 21, 2021, https://www.insidehighered.com/news/2020/10/23/racism-fuels-poor-mental-health-outcomes-black-students.

Overall, having a dedicated, compassionate and professionally trained team that is independently funded would: (a) ensure Black learners do not do the heavy lifting of educating the community, and allow faculty to partner with trained professionals; (b) ensure continuity of efforts across years and a cumulative learning process; (c) make effective programs available to the whole basic science research community; and (d) allow the team to work in collaboration with graduate learners to adopt and develop best practices for culture change.

Recommendation:

1. Raise funds to staff a team of three additional trained professionals to work in partnership with Dr. Duncan. We recommend that the new team members bring together expertise in (a) designing activities to educate the community on topics of systemic racism in higher education, (b) academic advising, (c) providing social and career support for marginalized learners, and (d) increasing outreach.

2. Annual Review of Diversity, Equity, and Inclusion Efforts Across Graduate Programs and the Graduate Division Dean's Office

Background

There are many proposals for new DEI efforts, but very few mechanisms to evaluate the effectiveness of existing efforts and obtain feedback for improving these efforts. This creates an undue burden on the Office of Diversity and Learner Success and graduate learner leaders from historically marginalized groups.

Recommendation:

1. Hire an evaluator with expertise in education research to manage the evaluation efforts (planning and implementation), data analysis, and reporting. This position would reside in the Graduate Division Dean's Office and work closely with staff and across graduate programs to measure the impact and efficacy of the Graduate Division's DEI efforts and to assess campus climate.
2. Require that all new DEI efforts, including faculty training, utilize quantifiable metrics by which to measure program impact and efficacy.
3. Annually evaluate the effectiveness of existing DEI efforts including faculty training, with regular reallocation of resources to the most efficacious programs.
4. Annually evaluate where new DEI efforts are in their implementation timeline.
5. Publicly report the results of the evaluation on the Graduate Division website.

3. Increase Representation of Basic Science Faculty

Background:

Recognizing our deficit of Black faculty, in 2018 the Student-Faculty Diversity Committee, the basic science department chairs, the directors of basic science graduate programs, Chancellor Sam Hawgood, Executive Vice Chancellor and Provost Daniel Lowenstein, and Vice Chancellor for Diversity

and Outreach J. Renée Navarro initiated a basic science wide search for Black faculty and faculty from historically marginalized groups. This committee identifies potential candidates and then pairs these candidates with the appropriate basic science department for consideration. To date, this effort has nucleated the hiring of four faculty in basic science departments and one in a clinical department. The basic science search this year did not yield additional faculty, but the Health Innovation Via Engineering (HIVE) search (with the Department of Bioengineering and Therapeutic Sciences) hired one faculty member who will start in the spring of 2022. UCSF applied for the National Institutes of Health's Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program Cohort Award, to further increase faculty diversity, and although we did not succeed on our first attempt, we are resubmitting for the next deadline.

Recommendation:

1. Continue the Basic Science Search Committee for the next five years and together with all searches in basic science departments commit to the following two goals: At least 33% of all new faculty hires, averaged over all search committees over the next five years, identify as Black or from historically marginalized groups, equally represented between men and women. Additionally, the remaining hires (~67%) will be equally represented between men and women. The ultimate goal is that our faculty represent the population distribution of California.
2. Make available aggregated data on demographics of new basic science hires yearly, and present that data at a basic science department chairs meeting. Department chairs should make this data available to the search committee so that the search can be adjusted accordingly to be in compliance with these goals.
3. When posting an open faculty position, use a job description template modeled on the Basic Science Search template, which explicitly indicates UCSF's commitment to diversity for all future hires.
4. Ensure that Dr. Michael Penn, director of faculty diversity, is involved in all searches.
5. Commit to implementing the NIH FIRST Cohort Model, as described in the grant, regardless of whether UCSF is awarded and receives NIH funding.
6. Provide that all newly hired faculty from historically marginalized populations have access to the resources for success developed for the FIRST Cohort hires.
7. Review existing diversity training for search committees, and then work with Dr. Michael Penn and possibly others to tailor the training for our faculty search committees in basic sciences.
   a. Require that all such search committees receive this training to ensure a respectful and level playing field for all candidates.

4. Redesign Physical Space on Campus for Black Graduate Learners and Learners from Historically Marginalized Groups

Background

Current spaces that exist are lounges or quiet study spaces for everyone that lack decorations affirming the belonging of Black graduate learners in higher education and at UCSF.

Recommendation:

1. Redesign existing graduate learner lounges (Mission Bay, Genentech Hall 2nd floor and Byers Hall 4th/5th floor) to accommodate learner needs, by specifically enhancing and creating a space where Black graduate learners and graduate learners from historically marginalized groups can study, prepare meals, and build community. The existing student lounges currently have inadequate lighting, uncomfortable furniture, and are not accessible or welcoming. Design changes include:
   a. Showcasing graduate learner artwork (within the lounges as well as in other areas of the building);
   b. Prominently displaying photographs of events hosted by diversity registered campus organizations (RCOs). For example, the Black Excellence in STEM picnic, as well as Graduate and Postdoc Queer Alliance fundraiser, SACNAS conference, Women in Life Sciences Coffee Talks; and
   c. Highlighting accomplishments by graduate learners – research fellowships, publications, internal/external awards.

5. Funding to Hire and Retain Black Mental Health Professionals

Background:

It is well documented that structural racism in U.S. society affects the physiological and psychological health of Black learners in a chronic manner.[10] To mitigate these negative effects, it is critical that UCSF be able to provide care by mental health providers who are able to understand and address the community safety needs of our Black graduate learners. However, there is a dearth of mental health professionals in general and mental health professionals of color specifically – particularly Black mental health professionals – within UCSF's Student Health and Counseling Services (SHCS). This places an undue burden on those that are present and results in increased wait times for Black graduate learners and learners from other historically marginalized communities. UCSF currently has one full-time counselor for approximately every 800 students, the lowest ratio in the UC system. This amounts to 4.0 FTE mental health counselors, of whom two are Black (50%), one is Asian-American (25%), and one identifies as a gender-variant person. Additionally, while this student-to-counselor ratio is better than other schools in the UC system, UCSF's status as a graduate-only campus means that graduate learners may be more likely to seek services and mental health services are more heavily taxed as a result. According to one study, graduate learners are six times more likely to experience anxiety and depression than the general population.[11]

Recommendation:

1. Increase diversity of mental health professionals with an emphasis on increasing the number of Black mental health professionals: Outline a roadmap for increasing SHCS demographic diversity

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[10] Maxine Davis, "Anti-Black practices take heavy toll on mental health," *Nature Human Behavior* 5, no. 1 (February 2021): 410, https://doi.org/10.1038/s41562-021-01058-.
[11] Evans, T. M., Bira, L., Gastelum, J. B., Weiss, L. T., & Vanderford, N. L. (2018). Evidence for a mental health crisis in graduate education. *Nature biotechnology*, *36*(3), 282-284.

in the next five years. This would require increasing the overall number of mental health professionals.

2. Increase visibility of mental health services: All basic science programs should feature mental health services and other resources (Student Disability Services, Multicultural Resource Center, LGBTQ Resource Center, Graduate Division Diversity and Learner Success) that can positively impact graduate learner mental health and well-being in multiple contexts to increase the visibility of these resources. Standardized language should be used to describe these resources across all programs. This standardized language can then be shared in multiple contexts such as in outreach materials, during the admissions process, and for entering graduate learners and learners in years two and up.

Policy Recommendations

Introduction

Systemic racism is the policies, procedures, behaviors, attitudes, values, and language entrenched in institutions and organizations that are detrimental to communities of color, creating unwelcoming, non-affirming, and harmful environments that perpetuate the marginalization of historically oppressed communities of color, particularly Black populations.[12] Many of the policies, specifically, center and uphold the ideals and values of whiteness, or the dominant culture, a culture which continuously tells people that their differences do not fit and therefore must either be changed or suppressed. Additionally, many policies structurally disadvantage and limit the access, professional advancement, success, and well-being of Black graduate and postdoctoral learners, staff, and faculty and other members of historically marginalized communities. Often, the impact of these policies, procedures, behaviors, and attitudes are invisible to those who align with or benefit from the systems that uphold dominant cultures, but inadvertently lead to detrimental outcomes for Black and other historically marginalized communities in academic institutions. Therefore, identifying policies and procedures that severely limit educational access and opportunity, as well as the quality of the educational and training experience for Black graduate learners, is an essential step in dismantling anti-Black racism. This section describes recommendations that highlight key gaps and critical areas for improvement in graduate program policies and procedures that impact outreach and recruitment, retention, and faculty mentorship and accountability.
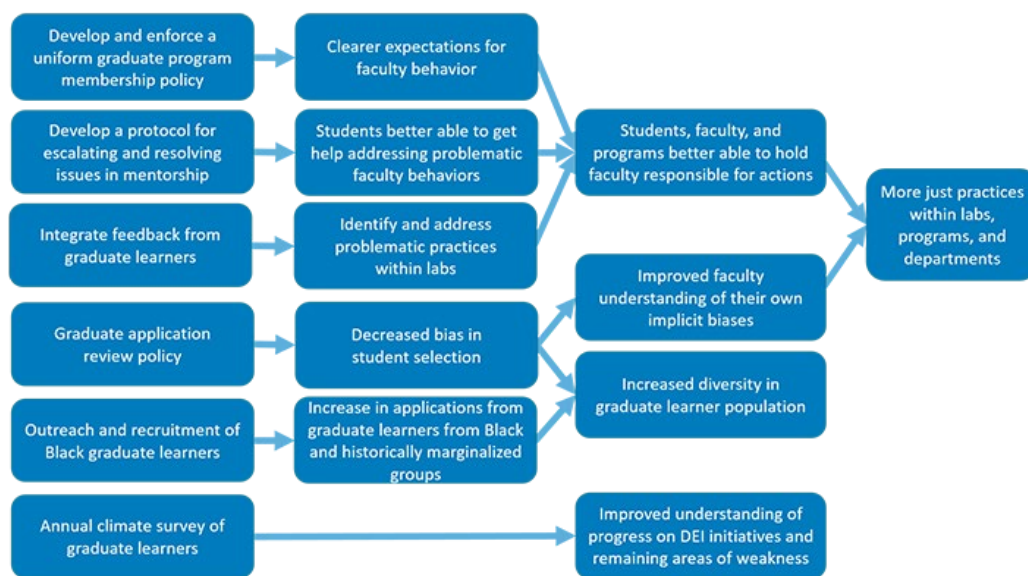
Figure 3 summarizes the proposed policy recommendations to help eradicate recurring problems in training and learning environments. Policy will reflect holding faculty accountable for problematic behavior and their implicit biases. Improving outreach, recruitment, and services for learners from historically marginalized populations will help reduce microaggressions against marginalized learners. In addition, learners' feedback will help identify troubling practices in labs. Thus, diversifying the environment will create more equitable practices in labs, programs, and departments while maximizing graduate learner experiences.

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[12] N'dea Yancey-Bragg, "What is systemic racism? Here's what it means and how you can help dismantle it," *USA Today*, June 15, 2020, accessed September 21, 2021, https://www.usatoday.com/story/news/nation/2020/06/15/systemic-racism-what-does-mean/5343549002/

6. Development and Enforcement of Uniform Graduate Program Membership Policies as Part of an Overall Effort to Make Program Policies More Inclusive

Background

Every basic science PhD program at UCSF has a separate policy that governs how faculty gain and maintain membership in the program. The criteria in these policies can be categorized as "program-specific criteria," such as the amount and type of participation in program activities that are expected, and "general criteria" that are based on University policies and common community standards. It is important to allow programs the flexibility to specify program-specific criteria that reflect their unique identities and address program-specific needs, whereas general criteria are, by definition, universal. Indeed, the general criteria currently used by each program are very similar. However, the programs have not coordinated with each other to ensure that the criteria are consistent, transparent, and uniformly applied. The adoption of a Graduate Program Membership Policy that includes a uniform set of general criteria, copied verbatim into each program's membership policy, would have several benefits. First, articulating the general criteria in a publicly available written document adopted by all programs would directly address the need to increase consistency, transparency and uniform application of the policies to all faculty. Second, the uniform application of these policies across all programs would ensure that faculty with membership in multiple programs are not held to different standards. This is important because our basic science PhD programs are interwoven together into a larger Graduate Division-wide community in which faculty and learners from different programs may work together in the same lab and participate in joint activities, including courses, retreats, campus events, etc. Third, adopting a uniform set of general criteria will help programs work together more effectively to develop and deliver content (such as faculty mentoring workshops), communicate expectations to the graduate program community, and track faculty compliance. Lastly, adoption of a common set of general criteria will elevate the legitimacy and importance of these principles in the community. These criteria have been crafted with extensive input from graduate learners, faculty, and other stakeholders. Universal adoption of these criteria will demonstrate their broad community support and will provide a foundation for future efforts to effect changes to University-wide and UC systemwide policies.

As important as it is to create a uniform graduate program membership policy, this should not be viewed as a complete solution to ensuring that program policies are as inclusive and anti-racist as they can be. Organizations of all kinds are at risk of perpetuating systemic inequities with their policies, often inadvertently. Thus, we recommend that programs go beyond simply implementing a new faculty code of conduct to also assess whether other program policies are harmful to marginalized populations. Throughout this report, we emphasize the importance of addressing anti-Black racism at UCSF, and it is particularly important to consider ways in which program policies negatively impact our Black graduate learners and by extension, our Black postdoctoral scholars, administrators, and faculty. Other sections of this report provide specific recommendations for faculty hiring, graduate program admissions, seminar series speaker selections, methods for integrating feedback from learners, and other program activities. In this section, we advocate for a comprehensive assessment of all other program policies not covered in

these other sections. The promotion of equity, particularly for learners from the most marginalized populations, should be at the forefront of every policy decision.

Moreover, the creation of a graduate program membership policy and a review of other program policies are not sufficient to ensure that community standards are upheld and enforced consistently. Recommendations 7 and 8, below, describe specific strategies for gathering information about whether community standards are being met, and how to act on this information. We recommend that programs take a multi-pronged approach, using these strategies and others as appropriate, to ensure that the Graduate Program Membership Policy is properly enforced. We note that there sometimes may be conflicts of interest when a community is tasked with monitoring their own compliance with a set of standards. We recommend that programs host forums of different types (such as town hall style meetings, small group discussions, etc.) to promote accountability, maximize transparency and gather feedback from learners. In addition, programs should implement periodic auditing of program policies with guidance from an external adviser, such as a consultant or, if available, a person from the Graduate Division Dean's Office who has the appropriate expertise and job description. The specific goal of this recommendation – the development and enforcement of uniform graduate program membership policies as part of an overall effort to make program policies more inclusive – should be part of the larger effort to create an open and transparent process for developing, revising, and enforcing a set of standards in our community.

Recommendation:

1. Create a graduate program membership policy using the uniform policy template (Appendix B). This template includes a program-specific criteria section, which can be unique to each program, and a general criteria section, which should be adopted verbatim by all programs.
    a. The General Criteria section includes specific language about expectations for conduct, describes mentorship training requirements, and specifies consequences of non-compliance, including a timeline for program removal.
2. Assess whether program policies perpetuate structural inequities, including anti-Black racism, and make changes to any that do. These may include program practices and expectations about who participates in program activities (especially outreach activities), how program directors, officers, and executive committee members are selected, the structure of faculty and peer mentoring programs, and social events sponsored by the program. The UCSF Multicultural Resource Center has an excellent collection of resources for reference online at mrc.ucsf.edu/racial-equity-anti-Black-racism. Each program should use these resources as well as the rubric in Appendix C to create a written report that describes their assessments of their program policies and summarizes actions taken. In addition, programs should engage individuals with expertise in educational research and conducting surveys, to ensure that these assessments are of high quality.

7. Develop Process for Escalating and Resolving Issues in Mentorship

Background

Black graduate learners in the biomedical research enterprise report negative experiences that lead them to leave academic research environments.[13] Official reporting mechanisms have a chilling effect, particularly on reporting racist behavior and practices, lack transparency, and do not address everyday incidents of harm that occur in classroom and research environments. As a result, there is a significant lack of data to inform the development of interventions that would prevent harm and support learners, and there is no mechanism for repairing this harm. At UCSF, information on how to navigate conflict in a mentor-mentee relationship is disparate, and for many marginalized students, they seek guidance from faculty from historically marginalized groups and/or from the Graduate Division Office of Diversity and Learner Success. This places an undue burden on these faculty and staff, especially considering their lack of training for handling these situations.

Recommendation:

1. Develop a protocol to navigate issues of mentorship and bias (often referred to as "gray areas"). Currently, there is an institutional collaboration between Student Life Services, the Office of Diversity and Outreach, the Graduate Division, Student Health and Counseling Services, and the eight NIGMS-funded training grant programs listed in Appendix A, to pilot the Bias Response Team which includes (1) a centralized mechanism for learners to share their experiences of bias; (2) the use of restorative justice approaches in addressing, repairing, and preventing racial and other types of harm in the basic science training environment; and (3) the development of a program of training to prepare future practicing psychologists to more effectively meet the needs of graduate learners.
   a. The protocol developed should focus on protecting the graduate learner as their situation escalates and also outline when to skip levels in the protocol.
   b. Require all basic science PhD programs to:
      i. Adopt the protocol
      ii. Post the protocol on their program website in an easily accessible manner.

8. Integrate Feedback from Graduate Learners

Background

A formalized mechanism for graduate learners to provide feedback to their rotation and thesis advisers increases the quality of the mentorship throughout the program, but is particularly important for promoting equity and inclusion because extant power dynamics prevent students from marginalized populations from raising issues. There should be a particular emphasis on supporting Black graduate learners and centering their experiences. The goal of creating this mechanism is to help improve the

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[13] Melba Newsome, "Colleges now produce fewer Black students in STEM fields," *The Hechinger Report*, April 12, 2021, accessed September 21, 2021, https://hechingerreport.org/even-as-colleges-pledge-to-improve-share-of-engineering-graduates-who-are-black-declines/.

learner experience, faculty mentorship, and communication of expectations for both; it is not a mechanism for reporting potential policy violations. Anonymous information from this mechanism can be shared with faculty by incorporating it into faculty mentor training events and other faculty communication to improve mentoring more broadly. Complementing such individual feedback, feedback from the graduate learner community on the program as a whole through surveys designed by a staff member trained in education research is also critical to identifying program-wide training gaps and to assessing training efforts that are successful.

Recommendation:

1. Implement evaluations (see Appendix D for example) to collect feedback for rotation learners to evaluate their primary rotation mentors (graduate learner or postdoctoral scholar) as well as their rotation faculty mentor.
    a. Evaluations will contribute to a faculty's membership status in a graduate program.
2. Implement a mechanism for providing anonymous feedback to thesis advisers.
    a. Feedback from graduate learners should be collated and delivered in as anonymized a manner as possible.
    b. Create a mechanism for graduate learners to report problems with mentoring to program leadership and articulate this process in a document that is accessible by everyone in the program.
        i. This procedural document could include a list of people available to learners to consult on difficult situations and who either have authority to implement change in the student's mentoring situation or can relay the information to those who do. These people can include faculty, program directors, program administrators, and other campus partners.
    c. The graduate program should keep track of the time and effort that faculty advisers and other mentors commit to this effort, to be used in promotions, etc.
3. Implement a mechanism for assessing the climate of the graduate program community annually (if it does not exist already).
    a. This can take the form of an annual "town hall" with students, a survey, or other forum. Findings should be discussed openly and publicly posted on the Graduate Division website.
    b. This initiative should synergize with the annual program-specific community circles, where community standards are articulated and reinforced.

9. Standardize the Graduate Application Review Policy

Background

While UCSF has made positive strides in increasing the total number of students from historically marginalized populations defined by the NIH, we are yet to match the national demographics for Black

people. People who identify as Black/African American account for roughly 13% of the national population and just 6% of the UCSF student learners population.[14]

Comprehensively assessing the origins of this gap to inform effective measures to address the gap requires (1) tracking demographic diversity across the different stages of the application cycle, and (2) understanding how specific processes at each stage may affect demographic diversity. However, there has not been a formal Graduate Division analysis of each basic science program tracking demographic diversity across the application cycle. Some of this information is available from training grant applications, but a cross-program effort to fully collate and analyze this information has not occurred. Further, each graduate program has its own set of admissions practices, which we recognize may reinforce biases while trying to increase diversity in graduate programs. Therefore, we believe that inconsistent practices lacking transparency can make assessment and problem-solving more difficult.

Recommendation:

1. Perform a thorough analysis of the admissions process in all programs.
    a. Perform a quantitative analysis of demographic diversity at all stages of admission: selection of candidates to interview, selection of candidates for admission and candidates with offers that choose UCSF. This analysis should take into account the gender **and** race of individual applicants (Black women vs. White women, Black women vs. Black men, etc.). Additional analyses should be performed to understand the effect of removing the GRE; introduction and removal of relocation allocation; and participation in other DEI efforts where possible (e.g. Diversity and Allyship Breakfast; Diversity Network Initiative).
    b. Perform a qualitative analysis of admissions practices using ethnographic observations of admissions meetings.
2. Collaborate between departments to develop shared best practices.
    a. Develop and share best practices regarding promoting diversity and mitigating bias in admissions, allowing programs to learn from each other's experience. Additional relevant best practices from the literature or from other universities should be shared alongside these. These practices should be publicly posted on the Graduate Division Admissions Requirements and Application Process page as well as on each graduate program's admissions page.
    b. Use the collated list of best practices from 2a to create and implement consistent guidelines across graduate programs for reviewing applications, and for interviewing candidates from historically marginalized populations. As part of this policy, develop two rubrics: one for reviewing written applications and one for interviews.
3. Coordinate the development of shared best practices with the Admissions Review Project being carried out by the Graduate Division Dean's Office, with the support of the directors of UCSF's basic science PhD programs. In this project the dean's office is conducting an examination of admissions data and processes, focusing on the basic sciences, with the following objectives: (1) Improve transparency and clarity of the admissions processes by documenting current practices

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[14] "UCSF Diversity Data Student Scorecard," UCSF Office of Diversity and Outreach, https://diversity.ucsf.edu/reports-data/diversity-data/learner-scorecard, accessed September 28, 2011; United States Census, "Population Estimates, July 1, 2019, accessed September 28, 2021, https://www.census.gov/quickfacts/fact/table/US/PST045219.

in admissions across all program; (2) Identify areas for improvement in recruitment of Black graduate learners, at application, interview, and offer stages; (3) Identify ways to reduce bias in the applicant review process; and (4) Generate best practices for potential adoption by the programs to maximally leverage the benefits of holistic admissions.

10. Outreach and Recruitment of Black Graduate Learners

Background

As a public university in the most diverse state, we seek to have a graduate program reflecting our diversity. In the basic science graduate programs, our efforts have increased the fraction of historically marginalized students from 17% in 2014 to 22.8% in 2020. Currently the strategy of our recruitment efforts include, a faculty member, or a faculty-graduate learner pair who recruit at the University of California (UC) and California State University (CSU) campuses or a team of faculty, graduate learners, graduate program administrators, and representatives from the Graduate Division Office of Diversity and Learner Success who recruit at Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) and Annual Biomedical Research Conference for Minority Students (ABRCMS) National Conferences. We also run the Summer Research Training Program (SRTP). Our SRTP targets students from historically marginalized communities in the basic sciences and approximately 50% of our SRTP undergraduates identify as coming from a historically marginalized population, based on race and ethnicity.[15] However, the percentage of UCSF graduate learners who identify as Black/African American is lower (6%) than the national population of people who identify as Black/African American, which has had a direct effect on the percentage of Black SRTP undergraduates.[16] It is important to create a welcoming learning environment for our most neglected learners and implement serious efforts to eradicate racism and other factors negatively impacting their experiences.

Recommendation:
1. Increase recruiting at universities with large Black undergraduate populations.
    a. Focus on universities where UCSF faculty already have connections.
    b. Reserve six to eight SRTP slots (~10-15% of total cohort) for undergraduates from these universities.
    c. Provide sustained funding for Black graduate learners at UCSF to attend and recruit at ABRCMS.
2. Build stronger relationships with faculty and undergraduates at Historically Black Colleges and Universities (HBCUs).
    a. Invite HBCU faculty and postdoctoral researchers to participate in basic science departmental speaker series.
3. Identify and implement strategies to encourage admitted graduate learners to choose UCSF, for instance: inviting Black graduate learners back for a post-admission visit to connect with faculty,

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[15] "Summer Research Training Program Statistics: Demographics and Degree Outcomes," UCSF Graduate Division, https://graduate.ucsf.edu/srtp-statistics#, accessed September 11, 2021.
[16] Program Statistics: Demographics, Admissions, Time to Degree, and Completion Rates," UCSF Graduate Division, accessed September 21, 2021, https://graduate.ucsf.edu/program-statistics.

enrolled Black graduate learners, and Graduate Division Office of Diversity and Learner Success; and compensating graduate learners for receiving competitive fellowships (National Science Foundation Graduate Research Fellowship Program [NSF GRFP], Department of Defense [DOD], Ford Foundation, Howard Hughes Medical Institutes Gilliam Fellowship, National Institutes of Health F31 Predoctoral Fellowship).

4. Develop a mechanism to review and integrate all recruitment efforts, including the proposed additional recruitment efforts. This can be either a consortium of faculty or a new staff person chosen by a faculty consortium and Dr. D'Anne Duncan.

5. Ensure that funds are available for faculty who are hosting community building activities centered around diversity, equity, and inclusion such as taking potential graduate learner candidates to coffee, lunch, or dinner.

Education and Training Recommendations

It is essential to understand the role of power and power dynamics in dismantling anti-Black racism in education and training, by specifically addressing how the *social* structures that uphold power and oppression impact the creation of an affirming, equitable, and inclusive learning and training environment in science and academia. The following section, adapted from [Talking about Race and Inequity in Science – Guide for Faculty](#), highlights the importance of power and power dynamics in academia and science.

We live and operate in a society with multiple intersecting structures of power, based on race and ethnicity, gender, sexuality, dis/ability, immigration status, religion, socioeconomic status, among others, which create more opportunities for some and fewer opportunities for others. These structures of power produce inequities and systems of oppression that manifest in racism, anti-Black racism, sexism, heterosexism, ableism, xenophobia, classism, elitism, and other forms of systemic discrimination. Recent research focused specifically on graduate level biomedical training suggests that barriers to increasing diversity are more deeply rooted in the culture of biomedical training; it is an issue of ***inclusion, racism, and sexism***.[17] In biomedical educational and training environments, power dynamics are pervasive, both structurally and socially, due to mentor-mentee relationships between graduate learners and faculty. It is important to focus on efforts that improve education and training for graduate learners and faculty about DEI and anti-Black racism. Improving education and training will ensure that inclusive mentorship approaches are implemented and will improve understanding of the pervasive societal practices of structural oppression in biomedical education and the scientific research community. Furthermore, to ensure that an equitable and inclusive training environment is created and fostered, it is essential that faculty and graduate learners are exposed to and are learning the same language and context related to racism, anti-Black racism, and diversity, equity, and inclusion. When faculty and graduate learners have a shared language and an understanding of the historical context of racism in science and diversity, equity, and inclusion principles and values, academic institutions can advance in creating and sustaining an affirming, equitable, and inclusive training environment that does not perpetuate bias and harm. This section describes recommendations that highlight key gaps and critical areas for improvement for educational and training requirements for faculty, increased speaker representation, and building partnerships with scholars who study inequity in science and education.

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[17] Kenneth D. Gibbs and Kimberly A. Griffin, "What Do I Want to Be with My PhD? The Roles of Personal Values and Structural Dynamics in Shaping the Career Interests of Recent Biomedical Science PhD Graduates," *Life Sciences and Education* 12, no. 4 (December 2013): 711-723.
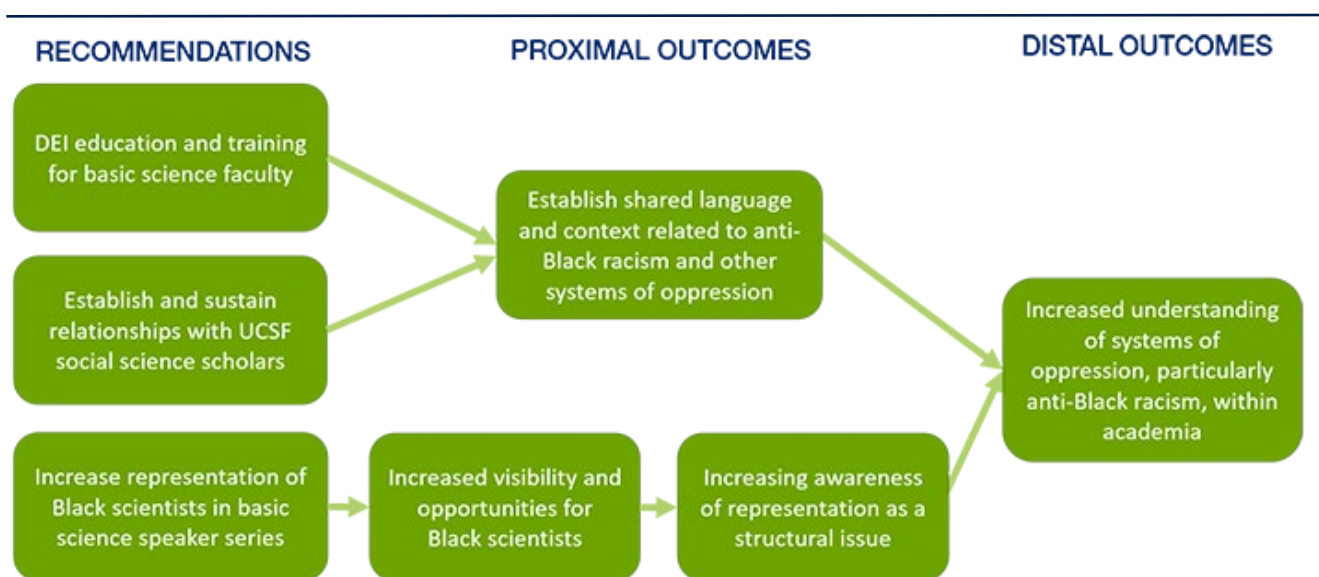
Figure 4 illustrates a potential formula for increasing awareness of anti-Black racism and other forms of institutional oppression for faculty and students. One solution is building stronger relationships between basic science and social science scholars to establish common ground on understanding harms wrought by anti-Black racism. Improving diverse representation in seminar series and events for students and faculty in the basic and social sciences will heighten Black scientists' visibility and challenge white supremacist notions about what Black people can achieve, but will not in itself raise awareness about anti-Black racism without additional work. Shared definitions and collaborations will increase potential outcomes of understanding oppressive systems and improving learner success.

11. Diversity, Equity, and Inclusion Education and Training for Basic Science Faculty

Background:

DEI training for faculty is an essential component of creating an inclusive and welcoming research and training culture for graduate learners from historically marginalized groups. An explicit emphasis in these faculty trainings on how to be an ally and a mentor to Black graduate learners will position faculty to be better allies and mentors to all graduate learners.

DEI training requirements are currently defined by individual basic science programs. Effective implementation of DEI training for faculty requires, (1) a shared set of requirements among different programs that can be sustainably implemented, (2) a means to keep track of which faculty have completed the requirements, and (3) a process for holding faculty accountable.

Among the three requirements, structures for keeping track of which faculty have completed the requirements are being developed, and accountability is being built into the faculty code of conduct.

Recommendation:

1. Create a shared set of training requirements for all faculty who have a basic science PhD student in their lab.

a. Require all faculty who have a basic science PhD learner in their lab to take the [UCSF School of Medicine's DEI Champions Training](#) every five years. Five years may allow for the DEI Champions Training course to be sufficiently updated for it to be meaningful to repeat. If a faculty member is taking in their very first graduate student, they should take it within the first year of the student joining their lab. **See Figure 5**.

b. Complement this basic course with training in a diverse set of areas by requiring all faculty who (a) have a basic science PhD learner in their lab and (b) have completed the DEI Champions Training in the last five years to participate in at least one mentorship/DEI development training course per year. These options can also include program-specific offerings.

c. Coordinate with DEI training offered to graduate learners. Such coordination can include carrying out some training jointly with faculty and graduate learners and ensuring that the DEI training curriculum for faculty is known to graduate learners so they can comment on effectiveness and other metrics.
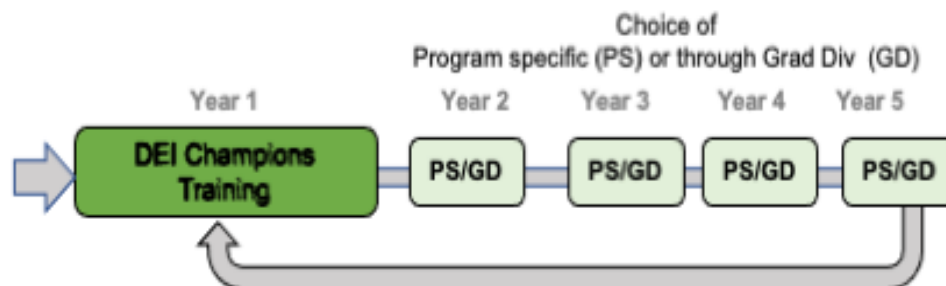
Figure 5

2. Develop a system to keep faculty accountable for meeting these requirements.
   a. Track which faculty have completed the requirements, ensuring the sustainability of current efforts by Drs. Jason Gestwicki and Ryan Hernandez to track training requirements.
   b. Display the training completed by each program faculty, with dates, on the faculty profile on program websites.
   c. Explicitly mention DEI training requirements in the Faculty Code of Conduct document.

12. Increase Representation of Speakers from Historically Marginalized Groups with an Emphasis on Black Speakers in Each Seminar Series

Background

The seminar series associated with an individual program typically showcases leading science being carried out by scientists outside UCSF. Given the high visibility of these seminars, speakers who identify as Black or from historically marginalized groups also serve as role models to UCSF learners. While graduate programs have made advances in increasing the number of Black speakers in general, the

number of Black speakers invited is still small. To continue to increase that number, we have the following recommendations.

Recommendation:

1. Increase the percentage of Black speakers and speakers from historically marginalized groups to 50% of the total speakers in each [seminar series](#).
   a. Set a goal of having equal representation of Black speakers and speakers from historically marginalized groups, compared to white speakers. It is recognized that achieving equal representation will be evaluated to measure success every year to ensure progress.

2. Reserve at least 16.7% of speaking slots for Black postdoctoral fellows. Use these slots to invite postdoctoral candidates with the intention of recruiting them to UCSF as faculty in the future. Invited postdoctoral speakers will be treated identically to faculty speakers. There are multiple venues to identify these speakers, including prestigious postdoctoral fellowships (e.g. Hanna Gray, Ford Foundation, Leading Edge, Intersections Science Fellows), visibility campaigns (500 Queer Scientists, Black in X, 500 Women Scientists), and previously invited faculty speakers.

13. Establish and sustain relationships with UCSF social science scholars in the departments of Humanities and Social Sciences and Social and Behavioral Sciences, who are conducting research on racism and anti-Black racism in science, medicine, healthcare, and society

Background

UCSF is one of few U.S. health science institutions whose central mission is to be "the leading university dedicated to *advancing health worldwide* through preeminent biomedical research, graduate-level education in the life sciences and health professions, and excellence in patient care." As such, UCSF is uniquely positioned to address the complex issues that span science, medicine, health care, and society, through collaboration among basic and biomedical scientists, physicians and health care professionals, and social scientists. However, the decentralization of efforts led by basic science departments and the departments of [Humanities and Social Sciences](#) and [Social and Behavioral Sciences](#) often results in lack of communication, perpetuates ignorance about the historical roots of anti-Black racism in science, medicine, and health care, and renders invisible the shared expertise that is necessary to cultivate a broader coalition to *advance health worldwide.* The free exchange of knowledge between social scientists and basic scientists is essential to fostering an equitable, supportive and inclusive learning and training environment.

Recommendation:

1. Coordinate program-wide seminars that feature social science scholars who are conducting research on racism, specifically anti-Black racism in society, from UCSF's departments of Humanities and Social Sciences and Social and Behavioral Sciences.

a. Basic science graduate programs will financially support these efforts by paying for social science scholar honoraria.
b. Basic science graduate programs will cross-promote [Social Science Grand Rounds](#), [Repair Project](#), Gladstone Institute's [AMPLIFIED: Race and Reality in STEM](#) seminars, in addition to promoting basic science seminar series.

Strategies for Implementation and Accountability

"At the human scale, in order to create a world that works for more people, for more life, we have to collaborate on the process of dreaming and visioning and implementing the world. We have to recognize that a multitude of realities have, do, and will exist. Collaborative ideation is a way to get into this – ideation is the process of birthing new ideas, and the practice of collaborative ideation is about sharing that process as much as possible."

– adrienne maree brown, *Emergent Strategy*

Guiding Principles for Implementation

1. To truly make progress in dismantling systemic barriers to equity, and to fighting anti-Black racism, there must be an established process for iterative and consistent engagement.
2. The work of the task force is complete upon finalization of this document but these recommendations are made at a specific time, and must be revisited as new opportunities and challenges arise.
3. The recommendations set forth in this document include a list of specific tasks and objectives that are to be revisited at agreed-upon intervals, and represent a framework for this iterative process.
4. The experiences of our Black graduate learners should be centered as objectives are developed, refined and achieved, with the acknowledgment that understanding and addressing issues through this *specific* lens will improve equity and inclusion for all historically marginalized students, postdoctoral scholars, staff, and faculty.

Recommendations for Accountability

1. The student-faculty diversity committee will serve as a nexus for sharing information, progress, ideas, strategies.
2. The student-faculty diversity committee shall be composed of all basic science graduate program directors, relevant Graduate Division Dean's Office representatives, graduate learner representatives from relevant diversity RCOs (one year term), with the executive vice chancellor and provost and the graduate dean serving in *ex offici*o capacity.
3. The student-faculty diversity committee shall be led by three co-chairs: Dr. D'Anne Duncan (Graduate Division Dean's Office representative); Dr. Carol Gross or her replacement (faculty representative); and a graduate learner (graduate learner representative).
4. The committee will meet quarterly to discuss progress in implementing task force recommendations, share strategies, and support each other in overcoming challenges. Additionally, members of the committee will bring larger challenges and new opportunities and

initiatives to the attention of the committee. The Graduate Division Dean's Office will convene these meetings.

5. The individual graduate programs will designate leads for implementation of recommendations (e.g., faculty diversity leads).

6. The student-faculty diversity committee will report to the executive vice-chancellor and provost on an annual basis to share updates on task force recommendation implementation and any newly-identified initiatives, and to request additional institutional funding and support.

7. As has been the practice for this first iteration of the task force, notes and reports from the committee will be made viewable to all at UCSF. Task force notes can be found on the Graduate Division Diversity webpage.

Methods

1. The recommendations outlined in this document were developed in collaboration with the individual graduate programs' DEI plans, as well as the assessment of the current courses, programs and initiatives offered by the Graduate Division Dean's Office.

2. Members of the task force began meeting in July 2020 and met once a month to discuss the gaps in existing programs and initiatives and current challenges with accountability and transparency.

3. Once a list of recommendations was established, based on graduate learner, staff, and faculty feedback, recommendations were organized and prioritized based on need: low, medium, high, and critical.

4. Recommendations identified as CRITICAL were prioritized and further developed and written to be implemented across the basic science graduate programs.

5. In March 2021, a smaller writing group was established, composed of two graduate learners, three faculty, and two administrators, to intensely focus and write the task force report.

6. Following the completion of the report, the larger task force group had the opportunity to provide feedback to ensure consensus among graduate learners and faculty.

7. The final task force report will be shared with all basic science and social and population PhD programs, basic science department chairs and institutes, research units (e.g., Center for Cellular Construction, Cardiovascular Research Institute, Helen Diller), the executive vice chancellor and provost, the vice provost of Student Academic Affairs and dean of the Graduate Division, staff members in the Graduate Division Dean's Office and Student Academic Affairs, Graduate Council, the Office of Diversity and Outreach, and with any additional UCSF stakeholders who support graduate learner and faculty education, training, and development.

Appendix A: Biomedical Sciences T32 Bias Response Team Proposal

I. Project Narrative

The proposed program will seek to develop, deliver, and evaluate the impact and value of restorative justice approaches to addressing student-reported incidences of bias and other diversity-themed incidents, and develop interventions that prevent future incidents and promote safe and inclusive biomedical research training environments.

II. Project Summary

Marginalized trainees in the biomedical research enterprise report negative, harmful experiences that lead them to leave academic research environments. Many such experiences are not addressed by existing reporting mechanisms since they do not rise to the level of policy violation, even though such incidents cause great harm and disrupt learning, health, and safety. Simultaneously, there is a significant lack of information about the types and prevalence of bias and diversity-themed incidents to inform the development of interventions that would prevent harm and support learners, and there is no mechanism for repairing this harm. We propose an institutional collaboration between Student Life Services, the Office of Diversity and Outreach, the Graduate Division, Student Health and Counseling Services, and eight NIGMS-funded training grant programs to pilot (1) a centralized mechanism for learners to share their everyday experiences of bias; (2) the use of restorative justice approaches in addressing, repairing, and preventing racial harm in the basic science training environment, and (3) the development of a program of training to prepare future practicing psychologists to more effectively meet the needs of graduate student learners. The proposed program will serve as a pilot for efforts to develop an institutionalized Bias Response program for the wider learner community at UCSF, and will provide a roadmap for other institutions seeking to promote safe and inclusive biomedical research training environments.

III. Research Training Program Plan

Funded Parent Project Abstract: The UCSF Biomedical Sciences (BMS) training program provides interdisciplinary training to equip diverse students with the scientific and intellectual skills needed to rigorously address important problems in the biomedical sciences with increasing self-efficacy and self-direction, and the adaptability and professional skills needed to continue making contributions in their subsequent careers in the biomedical science workforce. The BMS program's goals are closely aligned with those of the NIGMS Molecular Medicine program area. The program is unique among UCSF training programs, and addresses a national need for rigorous training of scientists who are motivated and able to apply basic and translational research approaches to dissect the mechanistic underpinnings of human disease, from molecules and single cells to tissue and organ systems. Students emerge from the training

program with reinforced scientific identity, a record of scientific achievement, and opportunities to contribute productively to the biomedical scientific enterprise that accord with their own interests and values. We pursue these goals through a combination of coursework, mentored research, and other structured training activities. The BMS curriculum provides a fundamental foundation in cellular and molecular biology, genetics and tissue and organ biology, and integrates understanding of human disease states throughout. It provides opportunities for deep exposure to focus areas through small group discussion-style minicourses, and includes a translational science course that incorporates discussion with clinicians and patients. Workshops teach students to rigorously apply emerging technologies, biostatistics, and computational approaches in research. Skills development in evaluating, proposing and communicating research is also threaded through the first year curriculum and reinforced by laboratory training and mentorship. Career exploration and professional development is emphasized from the beginning of the student experience and supported by robust program and institutional resources, optional internships, and professional mentorship from program faculty, all of whom are required to participate in a Thesis Mentor Development training program. Selection for appointment to the training program is conducted through an application process at the beginning of students' second year of training. Students may also apply for new or continued support at the beginning of their third year in the program. We anticipate supporting 12 learners annually from the large pool of eligible students in the Biomedical Sciences Graduate Program, which aims to enroll 25 new students each year. Intended program outcomes include degree completion in five to six years, generation and communication of a body of rigorous and impactful biomedical research, and successful transition to research-related careers in the biomedical workforce. We will provide an inclusive learning and mentoring atmosphere so that we can uphold the same high standards for program outcomes for all students, especially Black learners, students with disability, and others from marginalized backgrounds.

Background and Rationale: Marginalized trainees in the biomedical research enterprise report denigrating experiences that lead them to leave academic research environments.[18] Official reporting mechanisms have a chilling effect, lack transparency, and do not address everyday incidents of harm. As a result, there is a significant lack of data to inform the development of interventions that would prevent harm and support learners, and there is no mechanism for repairing this harm. We propose an institutional collaboration between Student Life Services, the Office of Diversity and Outreach, the Graduate Division, Student Health and Counseling Services, and the eight NIGMS-funded training grant programs listed below, to pilot (1) a centralized mechanism for learners to share their experiences of bias; (2) the use of restorative justice approaches in addressing, repairing, and preventing racial harm in the basic science training environment, and (3) the development of a program of training to prepare future practicing psychologists to more effectively meet the needs of graduate student learners.

AIM 1: Development of a centralized mechanism for learners to report diversity-themed incidents.

The UCSF community, including learners, have myriad options for reporting incidents of discrimination and bias, both anonymously and non-anonymously. Yet learners report that they do not engage with these mechanisms because they are (1) unaware of the options available to them and (2) they do not

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[18] Gibbs, K. D. & Griffin, K. A. What Do I Want to Be with My PhD? The Roles of Personal Values and Structural Dynamics in Shaping the Career Interests of Recent Biomedical Science PhD Graduates. *CBE-Life Sci. Educ.* **12**, 711–723 (2013).

know what to expect after reporting their experiences, citing fear of both retaliation and inaction. This aim will be instrumental in helping us understand the prevalence and types of degrading experiences that don't reach the level of code of conduct violation.

We will develop a website that will serve as a hub for information about reporting incidents of bias, a web-based intake form that is specifically for graduate learners to share their experiences (bias response report), and a data-sharing plan that will guide communication with learners, communication with other campus resources and offices, and public reporting of aggregate, anonymized data. The website will serve to improve transparency. It will provide information about other reporting mechanisms, in order to improve awareness of the range of mechanisms available at UCSF (see confidentiality, mandated reporting, and transmittal to other offices) and it will include a full description of the data-sharing plan so that learners will understand what to expect after submitting a report through the intake form. The intake form will be the key mechanism for collecting more robust data to improve our understanding of the trainee experience at UCSF. The form will be designed to receive reports anonymously and learners will have the option to provide contact information for further follow up (see AIM 2). The form will track self-reported trainee demographics, and information about the location and type of bias, along with details of the incident itself. This information will be used to generate regular reports that will be shared with the training program directors to inform efforts to cultivate a safer, more inclusive training environment.

Confidentiality, mandated reporting, and transmittal of reports to other offices. Learners will be assured of privacy; information shared through this mechanism will remain private to those who are central to the event ("need to know" basis). However, the employees involved are guided by mandatory reporting requirements of the University of California, so this resource cannot be considered confidential. Confidential employees are typically guided by state and federal law that requires verbal or written permission to share information; at UCSF, confidential support services include Student Health and Counselling Services, the confidential CARE advocate, and the Office of the Ombuds. As such, reports of incidents of gender-based discrimination and harassment, and reports that may be a violation of the UC Policy on Discrimination, Harassment, and Affirmative Action in the Workplace will be transferred to the Office for the Prevention of Harassment and Discrimination, UCSF's home for Title IX reporting and investigation.

AIM 2: Integrating restorative justice in repairing harm and promoting safe and inclusive practices.

As described above, current reporting mechanisms do not address everyday incidents of harm and alienation that lead to exclusive, unsafe environments, particularly for marginalized learners. These experiences disrupt learning and progression, and lead learners to abandon career ambitions in academic research. Learners who report such experiences of bias and marginalization through submission of a bias response report will have the option to share their contact information for further follow-up from the Bias Response Team (BRT). The BRT will include staff from Student Life, the Office of Diversity and Outreach, the Graduate Division, and Student Health and Counseling Services, as well as staff and faculty from the relevant training program (see training grants impacted by the proposed program). The purpose of the BRT is to support learners in addressing these diversity-themed incidents and other non-inclusive behaviors, to repair the harm inflicted in individual cases, and to develop

interventions that will prevent such incidents in the future for both the individual and across the training programs. The response to reports must be tailored to the specific incident reported by the trainee, but in all cases it will be rooted in two principles: understanding and responding to incidents using a trainee-centered approach, and repairing harm using practices rooted in restorative justice practices.

Restorative justice practices, at UCSF and in bias response. Modern restorative justice practices (RJP) originated in criminal justice, bringing together victim and offender with the goal of making amends and repairing harm. In more recent years, restorative practices have been employed in social work and schools, and have been used to both build community and bring together stakeholders involved in acts of harm of various scopes and depths.[19] There are two types of RJP "circles" relevant for this proposal:

1. A Community Circle is an approach to community building that creates a safe space for participants with varying values, experiences, and backgrounds to discuss a particular topic.

2. A Restorative Circle is an approach to repairing harm that has been done within a community. Participants in a restorative circle are encouraged to be open and honest about their perspectives regarding a conflict, how they have been harmed, how they think others might have been harmed, and solutions for repairing the harm.

UCSF's Office of Diversity and Outreach and Student Life Services have been cultivating experience and expertise in RJP for several years. Then, in 2020, with the isolation, separation, and deep grief and harm created by the dual pandemics of COVID-19 and racism, UCSF introduced Restorative Justice Practices (RJP) as a means for fostering accountability and healing, and (re)building community. Through RJP, UCSF's Graduate Division Dean's office collaborated with training program directors to introduce community circles to connect new incoming students. Each first-year cohort, along with program leadership, developed a community agreement – shared expectations for how the members of the community would interact with and support each other as they faced a full year of remote learning and ongoing trauma. We now seek to expand this work to address incidents of harm and bias in the biomedical research environment. In response to a report of bias or discrimination, the BRT will use restorative circles and RJP to create and hold space for those involved in an incident to dialogue, express perspectives, cultivate safety and respect, and develop skills to support inclusive environments. Importantly, this process will mitigate power dynamics that may interfere with students' ability to express concern without fear of retaliation, a key barrier that students identify in reporting through other mechanisms. The BRT will *not:*

- provide confidential counseling or psychology services; students seeking counseling services will be supported in contacting Student Health and Counseling Services.
- provide mediation, in which two or more individuals voluntarily come together with a neutral third-party to reach an understanding or agreement; students seeking mediation will be supported in contacting the Office of the Ombuds.
- serve as a mechanism for initiating a formal complaint or investigation; reports of harassment or discrimination based on a protected category will be forwarded to the Office for the Prevention of Harassment and Discrimination (OPHD) (anonymous reports) and students will be supported in initiating their own report to OPHD (non-anonymous reports).

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[19] Sullivan, D. & Tifft, L. *Handbook of Restorative Justice: A Global Perspective.* (Routledge, 2007).

To prepare members of the BRT, including training grant directors, in supporting learners and in responding to incidents of bias, we will engage Bay Area organization Circles for Social Change to provide training in RJP.

AIM 3: Development of a complementary Doctor of Psychology (PsyD) postdoctoral training program.

Graduate learners are at greater risk for mental health issues than undergraduate students and are six times more likely than the general population to experience anxiety and depression, even prior to the COVID-19 pandemic.[20] This crisis in mental health has been exacerbated by the seemingly endless series of high-profile racial incidents that have taken a heavy psychological toll on people of color, especially Black people. In an effort to meet these exceptional needs in a time of extraordinary budget constraints, and to support the success of this initiative, we will partner with UCSF's Student Health and Counseling Services (SHCS) in the development of a PsyD postdoctoral training program. These training programs are the functional equivalent of residency for psychologists, providing the training and clinical hours necessary for licensure and clinical practice. These PsyD postdoctoral learners will provide counseling services to UCSF graduate learners under the mentorship and supervision of full-time staff psychologists; they are *not* biomedical research postdocs.[21] The proposed initiative will incorporate a pilot program of training and development for two psychology postdoctoral scholars. Funds will support 50% of two psychology learners who will support this initiative. They will (1) consider, analyze, and evaluate data collected through the centralized reporting mechanism to understand the needs, experiences, concerns of students; (2) support students, one-on-one, who have reported an experience of bias, by helping them to understand their options and formulate a proposed plan; (3) be directly involved in responding to reports of bias and providing restorative circles; and (4) use this information to develop and deliver between one and three outreach and prevention interventions to support a climate of wellness and inclusion, and prevent incidents of bias and discrimination. Participation in this initiative will prepare future practitioners to more effectively meet the unique needs of graduate learners in academia, particularly marginalized learners. Furthermore, the involvement of these psychology practitioners in training will ensure that those learners who have experienced the greatest harm are quickly provided with expert consultation and assessed for additional support services.

Significance and impact: Ultimately, we hope to develop an institutionalized Bias Response program for the wider doctoral and postgraduate population at UCSF. The proposed program serves as a pilot that will be instrumental to the future success of this effort. These funds will enable us to: (1) better understand the scope and depths of incidents experienced by biomedical learners; (2) equip training grant faculty and staff in the principles, processes, and practice of restorative justice; (3) develop interventions to mitigate future events and thereby build capacity for the Bias Response program; (4) ensure that we are prepared to meet the needs of learners who have experienced the greatest harm, which is instrumental since we do not yet know what to expect in the reports; (5) refine a program of

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[20] Evans, T. M., Bira, L., Gastelum, J. B., Weiss, L. T. & Vanderford, N. L. Evidence for a mental health crisis in graduate education. *Nat. Biotechnol.* **36**, 282–284 (2018).

[21] Association of Psychology Postdoctoral and Internship Centers. https://www.appic.org/About-APPIC/APPIC-Policies/Postdoc (2016).

training that will prepare future psychology practitioners for the unique needs of biomedical learners in academia.

Assessment and reporting: The website will serve as a hub for disseminating data reports and all programs of intervention that are developed. Website analytics will be monitored. Reports detailing the types and prevalence of incidents of bias will be published at the six and 12 month points, and thereafter published at least annually. The interventions developed by the PsyD postdoctoral fellows will include assessments to improve future programs. Finally, we will assess student experiences in working with the BRT by tracking the mechanism for resolution and satisfaction with outcome.

Training grants impacted: Eight predoctoral NIGMS-funded training programs are collaborating in this effort: this T32 (GM008568); Pharmaceutical Sciences and Pharmacogenomics (T32 GM007175); Medical Scientist Training Program (T32 GM007618); Cell Biology Genetics and Biochemistry Training Program (T32 GM007810); UCSF/UCB Joint Graduate Group in Bioengineering (T32 GM008155); Molecular Biophysics (T32 GM008284); Research Training in Chemistry and Chemical Biology (T32 GM064337); and BMI Bioinformatics Training Grant (T32 GM067547).

Appendix B: Faculty Code of Conduct

[Graduate Program Name] faculty membership policy

1. [Graduate Program] membership

To become a member of the [Graduate Program], faculty must formally apply to the program and have their application approved by the [Program Name] Executive Committee. A description of the process and the criteria used to evaluate applications are available on the [Program Name] Website at [Program Website]. Membership in the [Program Name] training program is considered a privilege and a responsibility. The following criteria must be met to maintain this privilege.

2. Program-specific criteria

[Insert program-specific text; DSCB text provided below as an example]

Faculty in the [Program Name] program are expected to demonstrate their commitment to the training program by regularly participating in program activities. These may include teaching in courses; presenting or serving as a coach for the journal club series; serving as an academic advisor; serving on thesis and qualifying examination committees; outreach and other activities that promote diversity and inclusivity in the [Program Name] program; regular attendance at program events; and [Program Name] program committee service.

3. General Basic Science PhD program criteria

[The following text should be included by all programs]

3.1 Mentoring and teaching in the lab

Training program faculty are expected to maintain a productive and inclusive training environment for thesis students. Relevant measures may include evidence that the laboratory environment is welcoming to and supportive of learners from all backgrounds; that lab students produce rigorous and reproducible publication-worthy research; that data and findings are made public through submissions to preprint servers such as bioRxiv and public repositories when appropriate; that lab students complete their degrees in a time appropriate manner for the individual learner and the program; and that students successfully transition into careers.

3.2 Participation in faculty mentor development activities

Training program faculty must participate in the Thesis Mentor Development Program. Specifically, each faculty member with a [Program Name] student in their lab must complete the DEI Champion's Training within 1 year of accepting a student into their lab, and take part in at least one mentorship development activity of their choosing each successive year. Typically, an "activity" will be a University-sponsored training, such as the courses offered by the Graduate Division (mentoring.ucsf.edu/trainings). However, the development of strong mentorship skills is an ongoing process that extends beyond any single

course, and faculty are encouraged to seek mentorship development opportunities in many different ways. Faculty who undertake significant activities outside of the University-sponsored training may petition the program to allow these activities to satisfy the mentor development activity requirement in a given year.

3.3 Compliance with University policies and Program values

Training program faculty are expected to comply with all university policies and uphold the values of the training program, including but not limited to the [University Code of Conduct (APM-016)](#); UC Policy on Sexual Violence and Sexual Harassment; the UC Policy on Discrimination, and the Harassment, and Affirmative Action in the Workplace; scientific misconduct and/or financial improprieties.

4. Enforcement and program responses to non-compliance

4.1 Obtaining relevant information

To ensure compliance with these requirements the Program Director(s) and Executive Committee need to have the relevant information about faculty conduct. While information about faculty participation in program events and training is readily attainable, information about other types of violations may be difficult to obtain if, for example, the University is not forthcoming with information about faculty violations of University policies, or an individual who experiences a hostile interaction in the workplace does not report it. Thus, considering the different types and sources of information that is needed, the [Program Name] proactively seeks to track compliance with these requirements in multiple ways.

4.2 Violations of program expectations for faculty conduct

The [*Graduate Program Directors, Executive Committee, Program Coordinators, … (specific to program)*] are in constant communication with learners, faculty, the Graduate Division, and the University administration to monitor for compliance with all membership policy requirements. This can include reports from the Bias Response Team or other communications from the Graduate Division, and communications from the University administration about faculty violations of the University Code of Conduct. The Executive Committee will promptly revoke program membership at any time upon learning about faculty conduct detrimental to the program or the safety and welfare of its members. Examples of evidence of this type of detrimental conduct include (but not limited to), official findings by the University that a faculty member has violated Title VII or IX, or legal determinations of guilt (including settlements out of court) that may not have resulted in a University sanction. In addition, faculty may also be put on suspension or removed from the program for conduct that has not resulted in a University or legal sanction but is nonetheless detrimental to the program or the safety and welfare of its members. This may include serious or sustained actions that create a hostile work environment such as a pattern of racist, sexist, or homophobic remarks or behavior, or a significant lack of professionalism or integrity. Indeed, the [Program Name] expects all of its faculty members to represent and uphold UCSF values of Professionalism, Respect, Integrity, Diversity and Excellence.

The Executive Committee will develop a course of action on a case-by-case basis. For example, faculty who are found to have violated Title VII or IX will be removed from the program immediately and are generally not eligible to reapply (see Section 4.5 below) whereas the plan of action to address less severe

violations may include interventions by program leadership, mediation, additional training, etc. before a decision to suspend or remove a faculty member from the program is reached. In any of these cases, the program may seek guidance from University offices and resources, such as the Office of Academic Affairs, the Office of the Ombuds, and the Graduate Division.

4.3 Violations of program expectations for faculty participation in mentor development training

The [*Graduate Program Coordinator/Director/other person in the program* (*specific to program*)] tracks faculty participation in mentor development activities at least once per year. This information is made available to students and the [Graduate Program] Executive Committee. Any faculty found to have not met the program expectations for participation in training and mentor development activities in the past year will be immediately banned from taking future rotation students until they comply with this requirement.

4.4 Comprehensive faculty membership review

The Executive Committee conducts comprehensive membership reviews every [*three years (or other program-specific timeframe)*]. Faculty members found to be non-compliant with any of the above requirements are promptly removed from the program and may reapply for program membership once compliant with the stated membership requirements.

4.5 Reapplying to the program

Faculty who are removed from the program may, in some cases, be given the opportunity to reapply for membership by providing the Executive Committee with additional information or circumstances regarding their participation or mentorship, and a plan for mitigating deficiencies. However, faculty with violations of Title VII or Title IX regulations, will generally not be eligible for membership in the graduate program. In cases where a faculty violation has resulted in harm to a student or other member of the community, the program and the offender will seek to repair the harm through a process of restorative justice, if this is in accordance with the wishes of the person who was harmed. As described on the Student Academic Affairs website, the UCSF Restorative Justice Practices are "philosophical and humanizing approaches that focus on repairing harm, making things right, and restoring the community." These approaches primarily involve structured reflections and mentored dialogs.

Appendix C: Rubric for identifying racist or oppressive program policies

Instructions

For all program policies listed below, as well as any others not listed here or addressed elsewhere in the report, produce a written program assessment with answers to each of the following prompts. If the assessment of a particular policy does not reveal any negative impacts on marginalized communities, it may be because no changes are needed at this time or because the impacts are not apparent. Either way, a description of the thought process should be written down in a report to provide a basis for assessment and further conversation by the community. The completed report should be distributed to the community and a forum for discussion should be arranged. In addition, a timeline for reassessing policies (e.g. once every other year) should be established.

Prompts for assessing policies

(Adapted from "Six Ways To Embed Anti-Racism In Your Tech Company.")[22]

- How have we actively ensured this will work for marginalized communities?
- Are there specific marginalized communities that will be particularly impacted (in either a positive or negative way)?
- How will this policy address anti-Black racism on campus?
- Do we have any user research to back up our view that this is inclusive and anti-racist? If so, what are the findings?
- Do we have feedback from our community indicating that this policy is not negatively impacting members of our community from marginalized groups?
- If any concerns are identified, what steps have been or will be taken to change the policy?

Program policies to assess

- Program practices and expectations about who participates in program activities
- Program practices and expectations for DEI outreach activities
- Method of selecting program directors, officers (e.g. course directors, first-year mentors, etc.), and Executive Committee members
- The structure of faculty and peer mentoring programs (e.g. who is selected to be a mentor and how are students matched with mentors)

- Social events sponsored by the program

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[22] Atcheson, S (2020). "Six Ways To Embed Anti-Racism In Your Tech Company." *Forbes*, Aug. 14, 2020.

Appendix D: Student Rotation Evaluation Form

The Biomedical Sciences (BMS) and Developmental and Stem Cell Biology (DSCB) PhD programs collaborated with UCSF's Office of Career and Professional Development to develop the following ideas for a document that sets expectations for rotations and collects feedback from both faculty and students. A form that is currently being piloted this year in the BMS and DSCB programs to collect feedback from rotation students can be accessed at DSCB Lab Rotation Evaluation Form

BMS/DSCB Graduate Programs Rotation Evaluation Form
DRAFT
8/11/2020

Rotation Objectives (Program):
- Perform research [in three different labs] to learn about the variety of research topics happening at UCSF and to be exposed to a diverse array of techniques, models, and ways of thinking.
- Participate in group meetings and journal clubs to discuss different scientific topics with faculty and peers.
- Effectively present a summary of your rotation to the lab at the end of the rotation.
- Get to know at least three (3) different PIs and better understand their supervisor, educator, and mentoring skill sets/styles.
- Get to know people in the lab (postdocs, staff, and other graduate learners) in order to understand the interpersonal dynamics of each lab as well as to expand one's network.
- Reflect on rotation experiences to make an informed decision when choosing a thesis lab.
- Choose a thesis lab where you are confident you will be productive and engaged.

Rotations Objectives (Lab)
[Faculty enters their objectives for rotation here]

Rotation Evaluation:
Did the student meet the objectives of the lab and the program?

Please discuss the students' progress and growth opportunities as it relates to the following:
- Lab work (bench work, informatics, reading literature, etc.)
- Communication skills (science communication)
- Interpersonal skills (professionalism, communication with members of lab community, PI, etc.)
- Balancing lab and class responsibilities (dialogue between student and PI to manage expectations, etc.)

As a PI, how would you tailor your mentoring plan for this student around these growth areas?

Provide feedback on PI's mentoring style. What did the PI do that was effective for you? What areas were not as effective for you? Areas of discussion should include:

- Setting expectations
- Keeping you engaged in the science and scientific questions in the lab
- Interpersonal relations/communication
- Promoting work/class/life integration

Appendix E: Graduate Division DEI Primer

Introduction

What do we mean when we talk about diversity? How do the concepts of equity and inclusion factor into diversity? You may be passionate about being an active change-maker to address issues of Anti-Blackness and other forms of oppression at UCSF, but you might not know where to start and how to proceed. Made specifically by and for the Graduate Division, this primer to meant set some groundwork that will help you reframe your understanding of the diversity work that is and has been needed locally and nationally. Our goal in creating this living document is to provide a shared language, allowing us to engage in dialogue and more effectively work together to address the unique needs of the Graduate Division community. This primer was adapted from the [Differences Matter Initiative](#)'s [Antiracism and Race Literacy: A Primer and Toolkit for Medical Educators](#).

Everyone has an active role to play in the diversity work that is needed. This diversity work starts with each of us making changes in the spaces where we hold power. Together, our work in our smaller circles will contribute to the larger movement.

Objectives

The Graduate Division DEI Primer is meant to:

- establish groundwork that is essential to empower research faculty to be active, committed participants in diversity work within the Graduate Division,
- accompany and support the [Faculty Guide: Talking about Race and Inequity in Science](#),
- provide clarity on how equity and inclusion are integral components to diversity, and
- serve as a living glossary of important terms and key frameworks, which faculty can refer back to as needed.

What is Diversity?

In the most basic sense, diversity refers to the representation of difference. Diversity in people can refer to different ways of seeing or thinking about the world, different life experiences, different working styles, different communication styles, different cultural practices, different personal and professional identities, different abilities, and many other aspects of how we live and exist. Understanding differences is an important first step, but there is more to it. Diversity is defined in UCSF's PRIDE values as a call to appreciate and celebrate differences in others, creating an environment of equity and inclusion with opportunities for everyone to reach their potential. Diversity is more than just the representation of difference in our community. We tend to think of diversity as a noun when we should really be thinking about it as a verb.

Diversity as a Noun - A Desired Outcome

Calls to increase diversity in academia, especially within the fields of science, technology, engineering, mathematics, and medicine (STEMM), are not new (Weddle-West and Fleming, 2010). Many of these national conversations on increasing diversity focus on the desired outcome: increasing the number of students, postdocs, and faculty from backgrounds that have been and continue to be underrepresented in the field/institution compared to the larger population (Griffin, 2020). Focusing on just the numbers does not capture the full scope of the problem - the focus is on the 'what' while neglecting the 'who,' 'where,' 'when,' and 'why'. In this way, diversity is discussed as a noun – something that is present, or not present. With this approach, institutions make public commitments to numeric measures of diversity, going so far as citing the presence of diversity as necessary for their own brand of excellence. Such commitments tend to be non-performative, failing to bring about the change for which they strive (Hoffman et al., 2016; Ahmed, 2012).

Diversity as a Verb - Creating Equitable and Inclusive Environments

Diversity is not just about numbers and words we weave. Diversity involves understanding people, their experiences, and how we empower them to be authentic members of our community. But diversity is challenged by the systems of oppression that uphold the dominant culture, a culture which continuously tells people that their differences do not fit and therefore must either be changed or suppressed. Diversity is also challenged by inequities which create more opportunities for some and fewer opportunities for others. These inequities tend to be less visible to those with more power, but are nonetheless there (Tanner, 2009). With these challenges in mind, diversity practitioners understand that meaningful change in representation within an organization requires an approach that focuses on transforming organizational culture. It is active work to be critically conscious of the systems in which we work, to ask whether we are as inclusive and affirming as we think and say we are. What we are called to do is learn about and reflect on how equity and inclusion factor into our work as diversity practitioners.

Factoring Equity into Diversity Work

Equity refers to a state in which we all get what we need to survive or succeed based on where we are and where we want to go (Putnam-Walkerly and Russel, 2016). Equity is also tightly associated with principles of justice and fairness. It is important to recognize that equity is not the same thing as equality. Equality refers to sameness, as when describing the same rights and privileges that are granted to all citizens of a country. Equity considers the contextual experiences of people and recognizes that resources and power are not always distributed equally.
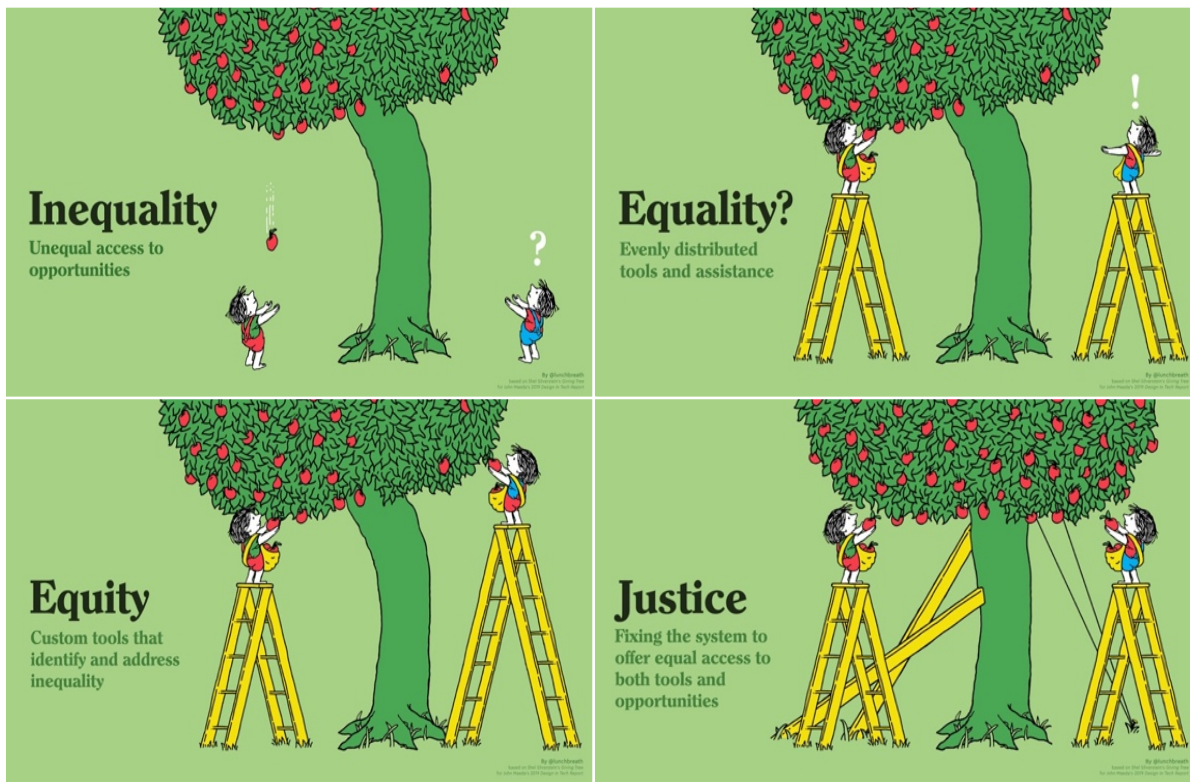
(Ruth, 2019)

Equity is an integral aspect of our diversity work because we want all members of our community to be successful, and that requires a deep understanding of their goals, where they are, what they need, and what barriers stand in their way. As a community, our goal should be to create systems that have the capacity to understand, affirm, and respond to the unique needs of every person without assuming what those needs are (see also Anti-Deficit Model). An equity-minded approach would have us recognize how systemic and institutional inequities impact a person's success, and not assume that failure to succeed is due solely to deficiencies in that person.

Supporting Diversity Work with Inclusion

Inclusion describes a state of being included within a group in such a way that allows for authentic and empowered participation and a true sense of belonging (Casey Foundation, 2020). In order for everyone to have empowered participation, we must necessarily consider equity – does everyone have what they need in order to successfully participate in the group? Inclusion, then, comes down to how authentically someone can participate and is determined by the degree to which a person has to change, suppress, or abandon aspects of their personal and professional identities in order to feel like they are accepted into the group (see also Anti-Deficit Model). The path to true belonging, then, is when someone feels that they have the resources they need, are actively encouraged to participate as their authentic self, and celebrated for being who they are.

In our efforts to build and sustain inclusive environments, we must constantly check our biases and assumptions and really listen to the experiences of those whom we say we want to include. If we care about being inclusive, we must pre-emptively analyze the systems in which we work to identify and change potential barriers to inclusion, ideally before people hit those barriers. There should be no room for rigid stances like, "this is the way science is done," or "this is a sink or swim field".

An Equity-Minded and Inclusive Approach to Diversity

> "Perhaps one reason why efforts to diversify science have made little progress is that we've spent too much effort trying to inculcate diverse populations of students into the culture of science as opposed to changing the culture of science itself to be inclusive of them." (Tanner and Allen, 2007)

From the dialogues we are having with our learners, it is clear that a narrow definition of diversity - increasing the number of scientists at UCSF that identify as women, Black, Latinx, American Indians/Alaska Natives, first-generation (FG) college students, sexual- and gender-minority students, and students with both visible and nonvisible (dis)abilities – is necessary but not sufficient. What we need is an equity-minded approach that allows us to think inclusively about diversity.

We propose a working definition of diversity as:

1) Celebrating the innovation that results from the heterogeneity within our community. Heterogeneity here includes but is not limited to: personal and professional identities, world views, ways of thinking and expression, unique life experiences, problem solving strategies, work styles, attitudes and beliefs.
2) Resisting and counteracting the tendency of those with privilege and/or power to determine norms that are oblivious, indifferent, opposed to, or violent toward #1.
3) Deliberately and relentlessly promoting spaces and processes that invite, encourage, embrace, defend, and celebrate different ways of feeling and thinking about science and life (Hoyt, 2018).

Such an approach will not be easy so we must approach this work with a growth mindset (Dweck, 2016). This will be an ongoing process, and we will fail at times – in those moments, we must be able to listen to and honor the experiences of those excluded from our spaces and work to be more inclusive. Commitment to diversity work requires that we adopt a growth mindset and commit to being active participants in the ways we can, so that together we progress toward our goal of creating equitable and inclusive environments that beget true diversity.

Glossary of Important Terms

The terms below have been adapted from the School of Medicine's DEI Primer and Toolkit, with the addition of specific terms that are important for diversity practitioners within the Graduate Division (terms added or adapted are indicated with an *). It is important to note that language changes. Some of the terms below may have developed new or more complex meanings from how you've learned about them previously. Likewise, these terms may change in context of how we use them in our community and in society. You should familiarize yourself with these terms and integrate them into your every-day interactions with colleagues and learners. Just as you would stay up-to-date with your particular field, building your knowledge and understanding of terms centered in national conversations about racism and oppression will empower you to be an active participant in conversations and initiatives.

Anti-Blackness
Anti-Blackness is a theoretical framework that describes societal devaluation and disregard for the lives and humanity of people racialized as Black (Ross, 2020). The ideological roots of anti-Blackness are tied to the exploitation and dehumanization of Black people during chattel slavery. Anti-Blackness manifests as overt discrimination, violence, and structural/systemic racism against Black people, and in the de-prioritization of their issues.

Antiracist*
The opposite of 'racist' is 'antiracist,' and this term is used to describe what it means to actively fight against racism rather than passively consider one's self as not racist. "One either believes problems are rooted in groups of people, as a racist, or locates the roots of problems in power and policies, as an antiracist. One either allows racial inequities to persevere, as a racist, or confronts racial inequities, as an antiracist" (Kendi, 2019).

Black, Indigenous, People of Color (BIPOC)*
"The term BIPOC stands for 'Black, Indigenous, People of Color,' it is meant to unite all people of color in the work for liberation while intentionally acknowledging that not all people of color face the same levels of injustice. By specifically naming Black and Indigenous people we are recognizing that Black and Indigenous people face the worst consequences of systemic white supremacy, classism and settler colonialism" (Sunrise Movement, 2020).

Color-blindness
One mainstream approach to race in the United States is to insist that race is unimportant (or unseen) and does not impact a person's achievements or abilities (Flagg, 1993). However, because of racism, people of different races have different lived experiences. Espousing a color-blind ideology that race does not matter ignores the actual differences in lived experience that people have based on how others perceive and respond to them in conscious, subconscious, and systemic ways. Becoming conscious of how race affects one's experiences in the world, or becoming color-conscious, is an important step in addressing racism (Crenshaw et al., 1996).

Critical Consciousness*

This model refers to a broad, analytical approach where one thinks critically about culture and power in any particular context. Critical consciousness requires that we recognize and challenge the biases that are shaped by our positionality in the system, and to question the culture, norms, attitudes, and beliefs that exist explicitly and implicitly. For the biomedical sciences, this means thinking critically about the culture of science, and how that culture produces and maintains social inequities (Johnson and Elliot, 2020). The Graduate Division's definition of diversity employs critical consciousness by recognizing the many factors that marginalize some but not others in the biomedical sciences, focusing both on recruiting and retaining learners with diverse life experiences and values. Critical consciousness is required in order for educators to develop culture competence.

Cultural Competence*

"A model where educators intentionally foster a culture in which students feel they can be themselves. […] This does not just mean being able to work with people from different cultural backgrounds; in this model, cultural competence means 'helping students to recognize and honor their own cultural beliefs and practices while acquiring access to the wider culture.' In university science and math settings, this means that departments deliberately broaden norms and practices so that students from nondominant cultures feel welcomed" (Johnson and Elliot, 2020).

Dignity*

State of being worthy; having privilege and honor; worthy, proper, fitting; to take, accept. This term is specifically used when referring to how we treat others with respect, how we listen to their experiences and acknowledge that what they have to share is worthy of being heard and believed.

Ethnicity

Ethnicity, like race, is a social construct that has been used for categorizing people based on perceived differences in appearance and behavior. Historically, race has been tied to biology and ethnicity to culture, though the definitions are fluid, have shifted over time, and the two concepts are not clearly distinct from one another. According to the American Anthropological Society, "ethnicity may be defined as the identification with population groups characterized by common ancestry, language and custom. Because of common origins and intermarriage, ethnic groups often share physical characteristics which also then become a part of their identification--by themselves and/or by others. However, populations with similar physical appearance may have different ethnic identities, and populations with different physical appearances may have a common ethnic identity" (American Anthropological Association, 1997). Race and ethnicity, social constructions, are often conflated with, and used as a surrogate for, ancestry. Ancestry more specifically and accurately identifies ancestral genetic lineage than does race or ethnicity.

Equality

Equality is a state/outcome that is the same among different groups of people. Equality is sameness (Visual Glossary, 2019).

Equity*

Equity refers to a state in which we all get what we need to survive or succeed based on where we are and where we want to go (Putnam-Walkerly and Russel, 2016). Equity is also tightly associated with principles of justice and fairness. It is important to recognize that equity is not the same thing as equality. Equality refers to sameness, as when describing the same rights and privileges that are granted to all citizens of a country. Equity considers the contextual experiences of people and recognizes that resources are not always distributed equally.

Identity*

"Identity is the composite of who a person is. Identity includes the way one thinks about oneself, the way one is viewed by the world, and the characteristics that one uses to define oneself, such as an individual's gender identification, sexual orientation, place of birth, race, ethnicity, FG college status, profession, values, and even hobbies. Some aspects of identity are constant, while others change depending on stage of life and social context. In addition, a person can hold multiple identities that also intersect one another, such as Black, transgendered woman, scientist, spouse, parent, artist, bookworm, and athlete. Research on the persistence of [under-represented] populations has often highlighted specific aspects of identity such as race, ethnicity, gender, income, and FG status as particularly important factors in retention and success in college and in STEMM fields" (Byars-Winston et al., 2019).

"Individuals develop social identities to fill psychological needs, such as increasing self-esteem and reducing uncertainty about oneself. Developing social identities requires both a sense of belonging to a particular social group and recognition as an accepted member of the group from existing members of that social group. Accordingly, social identities are defined by a common set of norms, attitudes, traits, and stereotypes that together form a 'prototype,' the typical or average representation of a group member. Individuals who deviate from this prototype—in STEMM, those individuals who are not White, male, heterosexual, able-bodied, middle-class and up, or otherwise historically represented as scientists—are more likely to be marginalized within the social group and not extended full membership. This marginalization, sometimes in the form of microaggressions, has the effect of barring UR students from benefiting fully from opportunities afforded to members of more well-represented and prototypical groups" (Byars-Winston et al., 2019).

Identity Interference*

"Identity interference occurs when cultural meanings and stereotypes assigned to social identities cause those with multiple identities to feel that one identity interferes with the successful performance of another identity. Resolving this interference by disidentifying, minimizing, or downplaying their devalued social identity can in turn challenge students' sense of authenticity and sense of belonging in their discipline and can even result in lower academic or professional performance. Students who feel they must change themselves and their identities to fit in are more likely to experience depression, reduced psychological well-being, and impaired academic performance" (Byars-Winston et al., 2019).

Implicit Bias*

Bias consists of attitudes, behaviors, and actions that are prejudiced in favor of or against one person or group compared to another. Implicit bias is a form of bias that occurs automatically and unintentionally,

that nevertheless affects judgments, decisions, and behaviors. Research has shown implicit bias can pose a barrier to recruiting and retaining a diverse scientific workforce (NIH, 2017).

Institutional Racism*

As a system of social control, institutional racism is a guiding principle that helps theorists across disciplines examine the systemic practices and policies that result in wealth, employment, housing, criminal justice, and political power disparities. Racially biased systems can supplant individual motivations and lead non-racist people to unwittingly contribute to racist outcomes in criminal justice, education, and health systems (Toldson, 2020). Although this concept might seem to focus on racial oppression and discrimination, scholars stress the importance of acknowledging "intersectional understandings which recognize the significance of seeing individuals as multiply positioned, with each identity (race/ethnicity, gender, class, etc.) irreducible to a discrete category or experience" (Phillips 2011).

Pipeline metaphor*

The STEM pathway from college to a doctoral program and then entry into a professional career has traditionally been referred to as a pipeline. Flow through a pipeline evokes an image of a uniform fluid flowing at a uniform speed, with leaks depicting failure to keep up with the flow. This imagery fails to capture: the incredible heterogeneity of individuals within the scientific pipeline; the developmental processes that add to or decrease progression of individuals; and the varied levels of skills each has developed as they pass the traditional academic stage milestones. In other words, the pipeline analogy can easily distract from a focus on the different starting points of those who enter it and the development of talents that does or does not occur within it (McGee, 2012).

"A pipeline conjures a picture of a straight line from enrollment, through graduate school, ending at a faculty position. However, a faculty career is not a given; career development is more of a branching pathway than straight line, where individuals must make decisions that could take them closer or further from academic research. These choices are often made with intention and do not represent accidental "leaking" from a linear path" (Griffin, 2020).

Race

The modern use of the term race was invented during the European Enlightenment (18th century) by scientists, naturalists and philosophers who used perceived physical traits and the notion of European/white supremacy to categorize human beings. Race has no biological basis. During historical projects such as colonialism and slavery, race was artificially imposed on people in different political positions to create a moral hierarchy used to justify the harm inflicted by inequitable systems, exploitive capitalism, and white supremacy (Kendi, 2019; Roberts, 2011). Although the construct of race is dynamic and evolves with changing social, political, and historical norms (Morning, 2011), the construct perpetuated the false idea that there are static, innate characteristics that apply to sets of people despite diverse origins, life experiences, and genetic makeups. However, race is distinct from ancestry. Ancestry denotes people's shared traits based on the genetic similarities of their ancestors and accounts for the complexity of geographic variation and fluidity (Roberts, 2011). While race is socially constructed, the consequences of this social construct are experienced individually and collectively by

communities in the form of racism. The effects of racism can be seen in differential outcomes in health, wealth, socioeconomic status, education, and social mobility in the United States.

Race Privilege

Race privilege is a term that identifies people who may be afforded privileges over others, usually because of their race's relative historical or current proximity to whiteness when compared to another person identified as being of a different race.

Racial Capitalism*

A term developed by Cedric Robinson, it argues that capitalism and racism evolved from feudalism to produce a modern world system dependent on slavery, violence, imperialism, and genocide. Civilization through capitalism was not meant to homogenize but rather to differentiate (Robinson et al., 1983).

Racism

Geographer and social theorist Dr. Ruth Wilson Gilmore defines racism as "the state-sanctioned and/or legal production and exploitation of group-differentiated vulnerabilities to premature death, in distinct and yet densely interconnected political geographies" (Gilmore, 2002). Importantly, her definition centers on how people of color experience racism, rather than focusing on how race is imagined or intended by white people (Brooks, 2006). Racism exists in many forms. Institutional racism describes the "policies, practices and procedures that work better for white people than for people of color, regardless of intention" (Differences Matter "Talking About Race Toolkit"). When describing how these institutions combine across history and present-day reality to create systems that negatively impact communities of color, we call this structural racism. Our experiences in the world and interacting with institutions and social structures results in internalized racism that shapes our biases and beliefs about ourselves and others. These beliefs may manifest on an interpersonal level as individual racism, or the "pre-judgement, bias, or discrimination by an individual based on race" (Differences Matter "Talking About Race Toolkit"). Although individually exercised, individual racism is internalized from racist institutions and systems. Because it exists in the context of structural racism, there is no such thing as "reverse racism" since the inequitable systems upon which racism is based are set up to benefit white people.

Systems of Oppression*

We live in a society with multiple intersecting structures of power – race and ethnicity, gender identity, sexuality, dis/ability, immigration status, religion, class/socioeconomic status, among others - which create more opportunities for some and fewer opportunities for others. These structures of power produce inequities and systems of oppression – racism, sexism, heterosexism, ableism, xenophobia, classism, elitism, and other forms of systemic discrimination. Anti-Black racism is particularly pervasive in the United States.

"In its traditional usage, oppression means the exercise of tyranny by a ruling group. […] In dominant political discourse it is not legitimate to use the term oppression to describe our society, because oppression is the evil perpetrated by the Others. New left social movements of the 1960s and 1970s, however, shifted the meaning of the concept of oppression. In its new usage, oppression designates the disadvantage and injustice some people suffer not because a tyrannical power coerces them, but because of the everyday practices of a well-intentioned liberal society. […] Oppression in this sense is

structural, rather than the result of a few people's choices or policies. Its causes are embedded in unquestioned norms, habits, and symbols, in the assumptions underlying institutional rules and the collective consequences of following those rules" (Young, 1990).

Five faces of oppression: (Young, 1990; Shlasko, 2015).

- Exploitation - the systematic transfer of resources (such as land, wealth, or labor value) from one group to another.
- Marginalization - the prevention or limitation of full participation in society through exclusion from, for example, the job market, health care system, public benefits programs, or community activities.
- Powerlessness - a deprivation of the ability to make decisions about one's living or working conditions.
- Cultural Imperialism - the valuing and enforcement of the dominant group's culture, norms, and characteristics.
- Violence - includes physical, sexual, and emotional violence, and the threat of violence, as well as policies and structures that condone violence.

Historically Marginalized / Historically Underrepresented*

This term is used to make it easier to refer to groups of people whose representation in a collective (i.e. at an institution or in a professional field) is significantly lower than their representation in the population at large. Within the field of biomedical research and education (and STEMM fields in general) this term is also used to call out the effects of marginalization that members of these groups experience by not meeting the norms of the dominant culture that is white, well-educated, heterosexual, cis-gender and male. Another term that is commonly used is 'underrepresented minorities' abbreviated as URM.

Groups that are historically underrepresented at UCSF are defined as: U.S. citizens and permanent residents who are African American/Black; American Indian/Alaskan Native; Latinx; Native Hawaiian/other Pacific Islander; or multiracial when at least one of the preceding URM racial/ethnic groups was indicated.

Individuals historically marginalized in STEMM fields include women and other gender minorities of all racial/ethnic groups and individuals specifically identifying as African American/Black, Latinx, and American Indians/Alaska Natives, first-generation (FG) college students, sexual-minority students, and students living with both visible and nonvisible disabilities (Byars-Winston et al., 2019).

**BIPOC scholars posit that 'URM', and other similar abbreviations are racist labels that misrepresent and obfuscate the unique marginalization that different groups experience. By lumping these different groups of people into one term, usually for the sake of making it easier to talk about them, it implies that underrepresentation is a permanent fixture of their identities (Williams, 2020). We therefore encourage you to reflect on your own usage of terms like 'underrepresented minorities,' or 'historically underrepresented.' If your goal is to promote equity and inclusion, it is recommended that you explicitly name the individual groups you are referring to, or use abbreviations that they have chosen for themselves.

Whiteness

Often conversations about racism can feel personal, rather than focused on the systemic mechanisms that maintain or protect racism. In order to set the stage for productive conversations about racism at UCSF, we want to introduce the useful theoretical framework of whiteness. Whiteness is beyond white skin; it refers to a systematic prioritization that advantages white people and disadvantages people of color. The fundamental premise of the concept of whiteness is that being white is the standard and being a person of color is a deviation from this norm (McLaren, 1998). Whiteness influences everyone because it is a ubiquitous set of cultural assumptions to which we are all pressured to conform. It is, essentially, the water in which we all swim (Tatum, 1997). For example, consider what is understood to be "normal" when Band-Aid describes a pale tan bandage as "skin tone", when a patient expresses surprise that their doctor is Black, or when a person's name is described as "unusual" when it is just unfamiliar to someone. The normative ideals of whiteness often go unnamed, unexamined, and unquestioned. This has tangible consequences, and often violent effects, for those who do not default into the norms of whiteness. Whiteness, and its consequent white supremacy, permeate medicine and health care in complex and nuanced ways. A discussion or critique of whiteness is not a critique of white people, but of a system from which they benefit and often uphold.

White Fragility

Multicultural education scholar Dr. Robin DiAngelo describes white fragility as "a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves. These moves include the outward display of emotions such as anger, fear, and guilt, and behaviors such as argumentation, silence, and leaving the stress-inducing situation. These behaviors, in turn, function to reinstate white racial equilibrium. Racial stress results from an interruption to what is racially familiar." White fragility may be a learned and is often a subconscious emotional response, resulting from white people lacking the prior experience to develop the tools for constructive engagement across racial divides. It is nefarious in that it works to protect, maintain, and reproduce white privilege by centering the emotions of white people in dialogues about racism, thus impeding discussions about racist systems that need dismantling (DiAngelo, 2011).

White Privilege

White privilege is a term that identifies disproportionate access to opportunities, privileges, protections, head starts, or benefits (eg. absence of burdens, barriers, oppression) that afford social and economic mobility that people perceived to be white enjoy that are not typically afforded to people of color. These benefits can be material, social, or psychological (McIntosh, 1988). Anti-Blackness is one mechanism that establishes and reinforces white privilege.

Key Frameworks

Critical Race Theory (CRT)

Critical Race Theory (CRT) emerged from legal scholarship in 1989 in response to the limited and narrow scope of how law defined and addressed racism. It offered a set of key racial equity principles and a methodology to illuminate and combat the root cause of structural racism. This methodology has since been adapted to the field of health and medicine to help scholars attend to equity while carrying out

research (Ford et al., 2010). Critical race theorists recognize that racism is ingrained in the United States' historical fabric and argue we must explicitly identify and name racial power dynamics in order to address racism (Crenshaw et al., 1996). CRT challenges the fundamental assumption that science is objective because scientific activity occurs within, and is informed by, the social context in which we live, which is biased (Ford and Airhihenbuwa, 2018).

Anti-racism

Anti-racism is the active process of identifying and eliminating racism by changing systems, organizational structures, policies and practices and attitudes, so that power is redistributed and shared equitably. Anti-racism examines and disrupts the power imbalances between racialized people and non-racialized (white people). In order to practice anti-racism, a person must first understand:

- How racism affects the lived experience of people of color and Indigenous people
- How racism is systemic and manifested in both individual attitudes and behaviors as well as formal policies and practices within institutions
- How both white people and people of color can, often unknowingly, participate in racism through perpetuating unequitable systems
- That dismantling racism requires dismantling systems that perpetuate inequity such as exploitive capitalism

Remember, these concepts are complex and these conversations can be challenging. Try to lean into the discomfort with the goal of talking about systems, and our roles in perpetuating or dismantling unjust systems, rather than attacking or defending one's character.

Anti-Deficit*

An anti-deficit framework is used to challenge social and systemic barriers when it comes to student success, and has emerged as a way to combat pervasive deficit thinking. Deficit thinking has its foundation in the idea that students possess deficits - motivational, cognitive, resource, experiential, cultural, or otherwise (Mejia et al., 2018; Perez et al., 2017; Harper, 2010; Smit, 2012). A deficit thinking approach focuses on assumed inadequacies of the students and seeks to provide programs to bridge skill gaps and assist the integration of the student into the prescribed norms of success. Deficit thinking is seen as a form of assimilation of groups or individuals into the dominant culture. An anti-deficit framework, instead, focuses on understanding and celebrating the strengths a student possesses that allow them to be successful despite institutional or systemic barriers to the student's success. Deficit approaches can perpetuate (notions) of assimilation, stereotype threat, exacerbate identity interference, and further affirm whiteness.

In the biomedical sciences, efforts to increase diversity have focused on increasing a diverse "pool" of scientists by bridging skill gaps for graduate students who may be viewed as lacking or inferior, compared to others. More recent research focused specifically on graduate level biomedical training suggest that barriers to increasing diversity are more deeply rooted in the culture of biomedical training; it is an issue of inclusion, racism, and sexism (Gibbs and Griffin, 2013). An anti-deficit approach, then, recognizes that we must critically evaluate the institutional policies, practices, and norms that support such a non-inclusive and oppressive culture. An anti-deficit approach would have us recognize that our biases impact the assumptions we make about people and what they may need to be successful.

Instead, we should listen to individuals to learn from them what their strengths are, and what their unique needs are in order to know how to best support their success. An anti-deficit approach would have us come to understand and celebrate the strengths and personal identities of our learners that enrich our community.

An example of an anti-deficit, anti-racist program at UCSF is the [Initiative for Maximizing Student Development (IMSD) Program](#).

Educational Justice*
The elements of educational justice incorporate educational access, cultivation of an environment for opportunity and critical thinking, recognition of structural harms, and community engagement. As UCSF continues to develop the framework for being an anchor institution, the Graduate Division Dean's office will seek to develop sustaining, respectful, and reciprocal relationships with the local surrounding community.

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