In light of your request to advance the conversation within our program, we would like to first state that while we are deeply saddened by these events; we are not shocked. We mourn the lives lost to police brutality: George Floyd, Ahmaud Arbery, Breonna Taylor, Tony McDade, Sean Monterossa, and others. In our lifetimes, we have seen this before with protests erupting over the killing of Trayvon Martin, Michael Brown, Eric Gardner, and Sandra Bland. Before that, there was Rodney King. Even earlier, Emmet Till. These incidents are not new; they are a reflection of the America that we've lived in all along.

Structural racism permeates every layer of society. Academia and science are no different. Black faculty and students are not only severely underrepresented, but they are also less likely to receive financial support from top funding agencies, more likely to suffer microaggressions, and are often racially profiled.

We are disappointed with the lack of **concrete** and **actionable** commitment from faculty and administration thus far. Therefore, we call on the Bioengineering Executive committee, as well as the chairs of Bioengineering and Therapeutic Sciences (UCSF) and Bioengineering (Berkeley), to implement the following action items. To ignore our demands is to be complicit in accepting the maintenance of an unequal and racist environment.

We need you to understand that this letter comes out of anger, exhaustion, and frustration that Black students in other departments also feel. As educators and administrators, we need you to go beyond having a conversation and creating healing spaces. The “conversation” has started manytimes before with little significant progress. You hold the power, and we ask you to act on that power to improve the experiences of your current and future Black students. We need you to act now. If implemented, these action items will positively impact other underrepresented groups and the Bioengineering Association of Students (BEAST) community at large, but right now we need to center and focus our conversation on the Black community.

**To transform the Bioengineering community, we demand that the Program take the following actions:**

1.Provide equitable support for Black students   
 a.Require mentoring, DEI, and sensitivity courses for faculty   
 b.Establish a clear mechanism for reporting discrimination   
 c.Scholarship for students doing service work   
 d.Support the request to stop racial profiling   
 e.Increase financial support to all students   
 i. Reinstate the moving bonus and start payment at the same time for UCB- and UCSF- affiliated first-year students before the start of classes   
 ii. Provide laptops for first-year students

2.Increase representation of Black students, faculty and staff   
 a.Increase transparency on demographics in the faculty and staff searches b.Make DEI efforts a factor in hiring, tenure, and promotions   
 c.Have more staff and faculty work on DEI   
 d.Improve recruitment strategies to diversify our application pool   
 e.Increase transparency on demographics in admissions   
 f.Establish an anonymous reporting mechanism for admissions   
 g.Require training for all faculty on admissions committee   
 h.Improve the admissions policies with input from faculty and students i. Remove the track categories from admissions

3.Establish an accountability system for our department to ensure significant progress

1. Building a supportive and equitable community

Bringing more Black students to our program is not enough. We are not here to make our program’s numbers look good. We want to be successful scientists. Our program needs to commit to properly supporting us throughout our PhD journey. Aggregated data from the 2001-2009 Bioengineering cohorts showed that the PhD completion rate for URM was among the lowest of all the PhD programs at UCSF (listed at 72.7%). We demand:

A.That all BioE faculty at UCSF and Berkeley be required to take mentoring and sensitivity courses yearly and demand that it be mandatory regardless of whether they currently have students. For those that participate in faculty searches and admissions, a refresher specifically DEI-targeted course should be required as well.

B.A clear mechanism for reporting and dealing with discrimination. There should be a clearly stated punishment and rehabilitation, if appropriate, to offenders. And the trainee, staff or faculty should be protected throughout this process, without fear of retaliation.

The consequences of not participating should be clearly laid out and severe: not being allowed to take new students, followed by the loss of BioE affiliation.

C.Create a scholarship fund for students nominated by BEAST who have been involved in departmental work (through BEAST committees such as DEC).

In addition to research, many Black students (and URM students generally), have volunteered our time to improve the climate in this program for future students, through DEC and BEAST. We are not only at a disadvantage to our white peers because of systemic racism, but also because we take time out of our research to address it. We need to be called to the table when decisions relating to our identities are being discussed, and should we choose to participate, we need to be compensated for our time.

D.Support the following initiative to stop racial profiling and discrimination and contact the university administration about it: petition here. It is important to us that you help create a community that actually puts the safety of Black students at the forefront.

Our presence as scientists is still foreign to campus security. At UCSF, the enforcement of badge verification by UC police is primarily directed at Black students, faculty and other people of color, that must constantly prove they belong to our workspaces.

E.Increase financial support for all students

We also live in one of the most expensive areas of the country. Financial insecurity is an issue that affects Black students disproportionately, with a significant amount incurring debt during graduate school. If we want to recruit Black students, we need to assure them that they won’t take on a significant financial burden to support their studies. The Program must:

i. Reinstate the moving bonus and disperse it along with the first stipend payment before the start of classes & rotations, regardless of UCSF/UC Berkeley affiliation. Many students move from across the country and internationally and do not have sufficient savings or financial support from family.

ii. Provide laptops for first-year students. Several programs at UCSF (Tetrad and iPQB) and at Berkeley (EECS) already do this. Having a capable laptop is crucial to make sure Black and other underrepresented students are properly supported in succeeding in classes and rotations.

2. There is strength in numbers - commit to changing them

We need more Black faculty and staff.

Out of 124 core faculty, only three are Black (as of June 10th, 2020) and none of them participate in the executive committee. To our knowledge, the last 5 faculty searches (4 at Berkeley - BioE and 1 at UCSF - BTS) had no Black faculty candidates at the shortlist stage. We need the BioE faculty and administration to be more proactive and not reactive in creating an equitable climate. We need buy-in from higher-ups in researching, advocating for, and implementing those programs. To create and enforce sustainable long-term solutions, we demand:

A.Transparency on the demographics of the faculty and staff searches in all stages up to the shortlist, past and future.

B.Active participation in DEI efforts must be an explicit requirement in hiring, tenure, and promotion of all faculty and staff members.

C.Significantly more staff and faculty to work on Diversity, Equity and Inclusion. The administration cannot rely on current, often Black, staff, students and faculty to work on this alone.

We need more Black students.

We currently have 10 Black students in our program. One graduated this year and that amounted to almost a 10% drop from our grand total of 11. For reference, 158 students matriculated in Cohort 2015-19. Out of these ten, only 1 does not have a Black immigrant-origin (1st/2nd gen), underscoring a failure of recruitment of US-origin Black students. To increase the number of Black students in the program, we demand:

D.That all faculty commit to attending conferences such as ABRCMS, NSBE, and SACNAS and to recruit at HBCUs and state universities in our area (SFSU, CSU and others).

In addition, faculty should actively engage in professional societies meetings catered towards the Black scientific communities at their respective conferences (special lunches, dinners, advising sessions). This must be part of the service that faculty are required to do yearly to retain BioE affiliation.

E.Transparency of the admissions data on all application stages about the broad demographics of applicants, admitted applicants, and matriculated students, past and future.

We must work within the bounds of FERPA and Prop 209, but there is ample room to use aggregate statistics to monitor and inform evidence-based approaches to improve student diversity. It is important for us to understand which stage we are failing to admit and retain Black students and dissect whether it is a failure of recruitment strategy or in the evaluation of these students.

F.The instatement of an anonymous reporting mechanism after every admission meeting to enable the reporting of any problems with the process or with individual reviewers.

If an individual gets reported by more than one person for racially insensitive comments and cronyism during any cycle of admissions, they should not be allowed to participate again.

G.That all members of the admissions committee attend training on the priorities and criteria for admission.

H.A fully codified admissions policy, crafted with input for faculty and students, that will help ensure more fair admissions.

Studies have shown that hiring processes with clear criteria are less subject to implicit bias and result in fairer outcomes. Given the current admissions system, a student’s chance of admission is highly

dependent on who reads their application. Faculty rely too heavily on metrics such as the number of papers and the clout of the applicant's recommenders; in many cases this has worked to the detriment of stellar URM applicants.

I. Track categories be eliminated or significantly changed during the admissions process.

Currently, admissions places a large emphasis on which narrow research interest ‘track’ each applicant declares on their application. This can adversely affect both the quality and diversity of our admitted applicants, as many students end up joining a lab in a different track. Research topic choice and demographic backgrounds are often associated, and this has been shown to largely account for the disparity in the NIH grant award rate between Black and non-Black scientists. Eliminating or broadening/merging the track categories will help to avoid any throttling of diversity due to the uneven distribution of BIPOC applicants across different subfield tracks.

3. Accountability

Finally, we **need** to hold you, the leaders of the department, accountable to fulfilling these demands. Many of these demands have been made before by a myriad of students, faculty, administrators and more recently with committees such as the Diversity Enhancement Committee (DEC) and the Diversity Task Force (DTF). We demand:

A.That the program holds a town hall every year and lays out how much progress has been made over the past year in fulfilling all of these demands.

B.To see progress every year and that this document serves as a basis for the agenda, but that other ideas to be implemented come up from your own research. Here are somesuggestions.

C.We commit to writing a rebuttal to that town hall and an updated list of demands every year that should be openly and widely shared.