

# Department of Chemistry and Biochemistry

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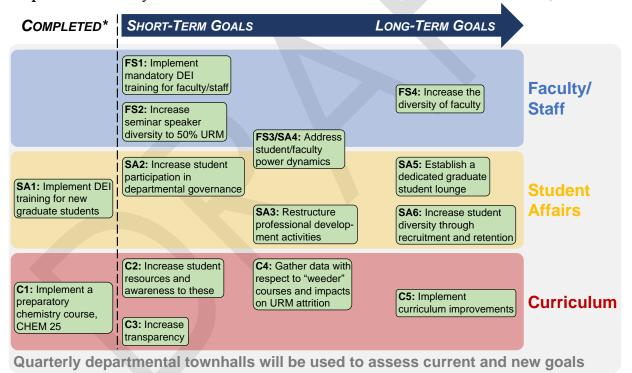
# Committee on Diversity, Equity, and Inclusion – Strategic Action Plan September, 2020

## This Strategic Action Plan (SAP) has been prepared by the current members:

#### Chair: Gabriel Ménard

Faculty	Postdoctoral	Staff	Graduate	Undergraduate
	Fellows		Students	Students
Mattanjah de Vries	Vacant	Heather Gardner	Phoebe Hertler	Dimagi Kottage
Brandon Greene		Olivia Hwang	Istvan Szabo	Melinna Nguyen
Quyen Nguyen			Ziyue Zhu	Junru Su
Javier Read de Alaniz				
Bryanna Sylvester				

## Graphical Summary of SAP:



\*The CDEI will ensure that "completed" tasks remain so from year to year

#### SAP Organization:

The Committee on Diversity, Equity, and Inclusion (CDEI) is organized into three subcommittees: Faculty/Staff Initiatives; Student Affairs Initiatives, and; Curriculum Initiatives. Each subcommittee has 2 faculty members, 1 staff member, 1 graduate student, and 1 undergraduate student. Each subcommittee has outlined its top goals

based on various feedback, including the Department of Chemistry and Biochemistry (DCB) Anti-Racism town hall discussion held on 8/13/20, the DCB's 2020 program review panel (PRP) report and survey data therein, and through various un/solicited conversations and information. This SAP is divided into each of the subcommittees' goals, both short- and long-term, and is detailed below. A graphical summary is provided above to help the reader.

## Faculty/Staff (FS) Initiatives

## Short-Term Goals

FS1) Implement mandatory annual faculty and staff DEI training: CDEI will coordinate with the Office of Diversity, Equity, and Inclusion, as well as the Office of Equal Opportunity and Discrimination Prevention to organize in-person implicit bias and equity and inclusion training sessions for faculty and staff, as an enhancement to the available online version through UCSB's Learning Center. Similarly, CDEI will coordinate with the Resource Center for Sexual & Gender Diversity to offer their Queer Trans Identity & Experience (QTie) Seminars. QTie Seminars provide education about the queer and trans community which include LGBTQ identities. Lastly, CDEI will coordinate with the Masculinities Project and the newly formed Men Advocating for Gender Equity group to offer resources and training that promote gender equity. CDEI will initially push to make these training sessions (through the respective campus organizations) mandatory for members of the Graduate Admissions Committee and the Faculty Hiring Committees. Next, CDEI will lead the push to make these training sessions mandatory for all faculty and staff.

FS2) Increase colloquium/seminar speaker diversity to include 50% minorities: The DCB's Departmental Colloquium is designed to hear from some of the world's leading researchers and rising stars and to provide a forum for the department (faculty, graduate and undergraduate students, and postdoctoral fellows) to meet. Another goal is to increase the visibility of researchers who come from groups that are less represented in Chemistry and Biochemistry such as black, indigenous, and people of color (BIPoC), women, and faculty from primary undergraduate institutions (PUIs) and R2 classified universities. In this way, we hope our colloquia/seminars will nucleate a community that will serve a talented and diverse cohort of scientists at all-levels, affording them a network that can provide mentoring and support throughout their scientific career.

CDEI will encourage speakers to be selected based on demonstrated scientific excellence and significant contributions to increasing DEI. The goal is to enrich our Colloquium series by hosting scientists that introduce us to the most innovative research programs while simultaneously representing a diversity of backgrounds and experiences.

FS3/SA4) Address student/faculty power dynamics: The issue of student/faculty power dynamics and the mistreatment at undergraduate and graduate student levels has been well detailed in the PRP report, the DCB Anti-Racist townhall, as well as through various personal communications. Procedures are needed to deal with this mistreatment and will likely require detailed discussions, fact-finding, and final adoption in a faculty

meeting. Mechanisms are required for students to speak up without fear of reprisals. These could be along similar lines as for other forms of harassment. For example, when a student speaks up, an *ad hoc* committee may be formed to investigate, document, and recommend action. Consequences for confirmed incidents could involve documentation in the faculty member's department letter for merit/promotion.

The CDEI proposes to create an online portal where students can register their incidents in confidence and, optionally, anonymously. This will remove the barriers to students who may be concerned about possible repercussions should they voice a complaint about their PI or the department. Should documented incidents against an individual PI become numerous, CDEI or the *ad hoc* committee could present these reports at faculty merit promotion discussions, thereby providing a mechanism for accountability. This approach will likely require initial consultations on campus-wide practices. We propose to host this online portal on the CDEI's new website which is currently being built (chem.ucsb.edu/inclusion).

## Long-Term Goal

FS4) Increase faculty diversity: The current makeup of the DCB's faculty is majority white and male. Of the ladder faculty, only 16% (5/32) are women and 6% (2/32) are considered under-represented minority (URM). Of the most recent 8 faculty hires in the past 10 years, only 1 contributed to these numbers. Unfortunately, this member has now left UCSB. The CDEI will therefore push the DCB FTE committee to clearly mandate that a significant portion (ratio to be determined) of new faculty hires be women and/or BIPoC candidates. One mechanism that could be leveraged further would be to recruit more faculty through the UC President's Postdoctoral Fellowship Program, one of our most effective tools for advancing faculty diversity.

#### **Student Affairs Initiatives**

## Completed

**SA1) Implement mandatory DEI training for new graduate students:** The CDEI has successfully pushed the Graduate Admissions Committee to implement mandatory DEI training for incoming graduate students during graduate orientation and training. This training will be offered by the Office of Equal Opportunity and Discrimination Prevention.

#### Short-Term Goals

**SA2)** Increase student participation in departmental governance: As stated in DCB's recent PRP Development Plan and adopted by the faculty, the department will create a graduate student committee that will advise the faculty regarding graduate student concerns and elect student representation on departmental committees, including those involved in faculty recruitment, TA workload and management, safety, diversity, and our colloquia. Transparency will be improved, for example by posting committee compositions and notes on the department website, and an annual survey will help assess student morale and concerns. CDEI will push the department to create this committee without delay.

**SA3)** Restructure professional development activities: While these have recently been developed for graduate students in a robust way, CDEI will work with the Chem Club, Chem PD and Undergraduate Faculty Advisors to develop new initiatives including workshops, on-line resources, and one-on-one advising for undergraduate majors to provide guidance on career paths and on preparing for graduate education, including applying to the UCSB graduate program and encouraging undergraduate research.

**SA4)** Address student/faculty power dynamics: This issue is intersectional between the Faculty/Staff Initiatives subcommittee and the Student Affairs Initiatives subcommittee. Please see FS3 above for details.

## Long-Term Goals

SA5) Establish a dedicated graduate student lounge/safe-space: CDEI will work with the Department Chair and the Space Committee to find a way for the department to provide a general graduate student lounge.

## SA6) Increase student diversity through recruitment and retention:

While DCB dropped the GRE requirement for graduate admission, is now using rubrics for graduate admissions, and has a number of outreach programs in place (UC-HBCU Initiative, Bridges to the Doctorate, SACNAS, and UC-Leads), more efforts will be undertaken to target and encourage prospective URM students. An example is a more systematic program to give talks at potential feeder schools. To help strengthen retention, DCB's recent PRP Development Plan, adopted by the faculty, stated the intention to create a committee comprised of faculty, students, and staff that will be tasked with formulating proposals addressing student morale and climate issues. To guide these efforts, we will collect and study statistics on data, such as the admissions, matriculation, and graduation rates of admitted students, broken down by ethnographic parameters.

## **Curriculum Initiatives**

The curriculum sub-committee has identified undergraduate curriculum as the area of most immediate concern, based on the departmental PRP and discussion with the broader CDEI committee. We believe this is justified given the low course load for graduate students and the extremely low failure rate of these courses, suggesting they are not a barrier for URM graduate student success.

#### Completed

C1) Implement a preparatory chemistry course: DCB has recently revived CHEM 25: Introductory Chemistry which will be offered for the first time in 25 years this Fall, 2020. CHEM 25 will better prepare incoming freshmen students succeed in the CHEM 1A-C: General Chemistry series, a barrier (aka "weeder") course on campus serving half of all incoming freshmen at UCSB. CDEI fully supports the reinstalment of this course and this example will serve as a backdrop to some of CDEI's longer term goals described below.

#### Short-Term Goals

C2) Increase student resource awareness and availability: Students entering the Chemistry curriculum exhibit a wide variety of preparedness, and for those who are traditionally underprepared, awareness of available campus resources may be pivotal to their success. In particular, the instructional/emotional support provided by CLAS, CAPS, CARE, DSP, and the UC Learning Center are free and effective, yet are underutilized. To encourage and promote resource engagement we will compile a student and instructor friendly campus resource access document (slides, documents, posters, and links) to demonstrate to students that these resources are effective in improving performance in the Chemistry curriculum. This resource bank will be made in a format portable to faculty syllabi and GauchoSpace sites for increased visibility and exposure. In the current virtual format, this will be provided digitally, but as in-person instruction resumes, posters will be placed at all Chemistry/PSBN main entrances as well as outside General Chemistry lecture halls and through Departmental social media. We will also develop resources internally to cater to the unique demands of a chemical education. These resources will include modern data analysis and scientific writing, in close collaboration with existing similar resources on campus to directly meet the needs of chemistry and biochemistry students.

C3) Increase transparency: It is the subcommittee's opinion that, while our curriculum improvement suggestions may be effective, the students themselves are a key constituency, and must be engaged through direct communication. We propose to hold regular curriculum centered townhalls to engage with the undergraduate and graduate student populations to identify contemporaneous curriculum issues and present these to both the CDEI committee and the faculty at large. This will be facilitated by at least a yearly townhall that will be widely advertised. The curriculum initiatives will be presented and community feedback will help implement improvements and identify areas that elude the committee. We anticipate that these dialogs will result in additional transparency mechanisms.

C4) Gather data with respect to "weeder" courses and impacts on URM attrition: The departmental PRP identified the CHEM 1A: General Chemistry course as an apparent "weeder" course, with URMs more likely to receive insufficient grades to continue in their respective majors. Several efforts to address this are underway to improve retention and performance of URMs in this introductory course, particularly the addition of CHEM 25 as a preparatory course for incoming students who may need supplemental preparation for success in CHEM 1A. Preliminary additional data indicates that the second major barrier course is CHEM 109, and we will continue to monitor and collect this data to determine the effect of CHEM 25 and other improvements on student retention and success. We are engaging with our departmental administration to aggregate data on all the major requirement circuit, which will inform a targeted curriculum improvement mandate and inform the faculty on barriers to URM success in the major.

## Long-Term Goals

C5) Implement curriculum improvements: Several elements of the curriculum are ripe for potential improvement to better serve our URM students, and will require interfacing with the departmental curriculum committee. Among these potential improvements, our top priority is to open our preparatory CHEM 25 course in the summer to get students "up to speed" for the Fall CHEM 1A and allow them to stay synchronous with the series. An additional priority is to make CHEM 184, a literature search course that provides students with the resources and tools necessary to find chemical information relevant to their coursework, more widely advertised and perhaps mandatory for majors. With cooperation from faculty, we are exploring the possibility of obtaining general education writing credit for some of our upper-division laboratories (CHEM 125L and CHEM 116BL), a practice already in place in other MLPS departments. Writing credit would help students sharpen their communication skills while providing some unit relief, permitting more time for our URM undergraduates to utilize the resources highlighted in C2. Lastly, we are also seeking to increase the presence of learning assistants, undergraduate students who have performed well in the course of interest in the past who can assist current students, across our course catalog.

# **Quarterly Townhalls**

CDEI will hold quarterly townhalls where the entire DCB community can come and present and discuss current issues. Similar meetings have been held in an *ad hoc* fashion recently within our department to, for instance, hear our graduate students' concerns related to the Cost of Living Adjustment (COLA) movement within the UC system. To address such concerns, including recent events related to Black Lives Matter, as well as the inequities presented by the COVID-19 pandemic, we propose to hold these townhalls in order to listen and address these in a more concerted manner.