

Brown University
Academic Department Diversity and Inclusion Action Plan (DDIAP)
2017-2018 Update Report Summary

Please respond to the following questions below and submit the document via email to the Office of Institutional Equity and Diversity at ddiap@brown.edu by **June 15, 2018**.

Name of Department/Unit: **Chemistry Department**

Name/title of Person Submitting Update Report: **Brenda Rubenstein**, Chemistry Department Diversity and Inclusion Action Committee (ChemDIAC) Chair on behalf of Paul Williard, Chemistry Department Chair

1. Describe the Departmental DIAP goals and priorities your department focused on during the 2017-2018 period. Please relate these goals and priorities to each of the major DIAP themes stated below.
 - a. *People*: What goals and priorities have you focused on related to the following constituent groups: faculty, undergraduate students, graduate students (masters and PhD, if applicable), postdoctoral fellows (if applicable), and staff?

In order of the ChemDIAC's most important foci this past year:

Graduate Students: The ChemDIAC has focused on two key graduate student-related goals: a) ensuring a safe and welcoming Chemistry Department climate for all graduate students and b) recruiting a more diverse body of graduate students. As part of a 2016 climate survey conducted by the ChemDIAC on a subset (2nd years) of our graduate student body, a number of female graduate students expressed concerns about inequitable treatment within the Department. In response to those concerns, the ChemDIAC recently developed a new anonymous incident reporting form open to the entire department community and prominently situated in several places on our website, ensured that it is made to clear to female graduate students during Orientation and at later junctures that they can (and should) select female faculty to serve on their thesis committees to mitigate a potential source of bias, conducted several student, faculty, and staff implicit bias trainings (with the help of Stacey Lawrence and Lynn Hernandez), and indirectly aided with a Title IX case that arose in 2016 within the Department. As part of our graduate recruiting efforts, Profs. Brenda Rubenstein and Jerome Robinson actively recruited students from a wide array of backgrounds by advising all HUG students on our recruiting lists to apply for free via the application fee waiver program, attending the Leadership Alliance National Symposium, SACNAS, and the Scientista Symposium, and participating in numerous IMSD and Graduate School recruiting events. As a result of our efforts, **the Chemistry Department received roughly 30 applications from**

HUG students (out of roughly 240) and accepted half of these. **14% of chemistry students accepted this year were from HUGs.** Ultimately, two have matriculated, one of whom will be receiving an IMSD/Diversity Fellowship based upon our nomination efforts.

Undergraduate Students:

The ChemDIAC has focused on maintaining an inclusive environment for undergraduate concentrators. Several Chemistry concentrators voiced their concerns at ChemDIAC meetings this past year about the leadership of our Chemistry Department Undergraduate Group (ChemDUG). At least one member of the ChemDUG's leadership was viewed as committing un-inclusive, if not openly hostile, acts against other undergraduates. The ChemDIAC and Chemistry Department staff have likewise stepped up to help the group select new leadership (open elections have been organized for the first time) and to define new bylaws to prevent such a situation from occurring in the future. The ChemDIAC has also worked with the Leadership Alliance and other fellowship programs (including the McNair, Khorana, and Cantabria Scholars Programs) to invite a wide array of undergraduates from other institutions to research at Brown. **We will likewise be hosting roughly 10 international and HUG students, in addition to several disadvantaged area high school students, this summer.** We hope that hosting these students will broaden Brown student perspectives. Lastly, the ChemDIAC is well aware of the fact that our body of Chemistry concentrators remains largely devoid of HUG students. The ChemDIAC continues to try to understand the origins of this lack of diversity. This past fall, we conducted an entrance survey of CH330 (our primary Intro course) students. **This survey found a remarkable lack of HUG students (less than 2% of course takers based on student responses), which hints at pipeline issues before students even enter our Department.** Nevertheless, the ChemDIAC has met several times with New Scientist Collective leaders to identify strategies for keeping HUGs engaged with our Department; we will be working with the New Scientist Collective to hold an "Open Lab Hours" event this coming fall to welcome HUG students directly into our research labs.

Faculty: As mentioned above, we invited Lynn Hernandez to conduct a faculty implicit bias training this past January. This training was held during the regular department faculty meeting slot and was therefore attended by virtually the entire Department. With the help of the Office of Institutional Diversity and Equity, we have also sponsored a "Distinguished Women of Chemistry" speaker series that has invited prominent faculty from other universities (including Catherine Drennan of MIT and Suzanne Walker of Harvard) to give a weekly colloquium. As part of these speakers' visits, we have asked them to hold a 1.5-hour "Pathways to Success" discussion session with our students and faculty. These discussions have shed light on the often circuitous and difficult paths these speakers have taken to reach the heights they have.

Staff: Staff have also participated in a November implicit bias training that we organized.

Postdocs: While the DIAC has not yet explicitly engaged postdocs (postdocs are always invited to our meetings), the lack of postdoc representation has been noted and will be addressed moving forward.

b. Academic Excellence/Curriculum: Describe any leading-edge research and/or teaching on issues of race, ethnicity, inequality, and justice in your department. To what extent are inclusive pedagogy and practices addressed? If your academic has concentrators or offers courses, what curricular offerings have been enhanced or have been developed in regards to your DIAP goals? Have any changes been made to the concentration requirements?

Although the Chemistry Department has not made any curricular changes, ChemDIAC leadership is in discussions with the Swearer Center around **creating an Engaged Scholars course that will expose Chemistry undergraduate and graduate to issues of race, ethnicity, inequality, and justice while teaching or mentoring disadvantaged high school students in local schools. This programming will supplement our recent \$25000 American Chemical Society Seed Program grant to mentor disadvantaged high school students in our labs and our \$5000 Society for Science and the Public grant to mentor high school students through the annual science fair process.**

c. Department Climate: Please share any initiative related to improving your department cultural climate that have been implemented.

As discussed above, we have recently piloted a Department Anonymous Reporting form designed to give department members the opportunity to voice their concerns about climate anonymously. Comments will be reviewed by ChemDIAC members, and periodically discussed and addressed at DIAC general body meetings. Our monthly DIAC general body meetings themselves have also helped to improve department climate. Roughly 20-30 students, faculty, and staff attend these meetings and openly discuss issues within and actions that can be taken by the Department. As a complement to these meetings, the ChemDIAC moreover holds quarterly discussion groups, usually focused upon student-suggested articles or topics for conversation, at the Sarah Doyle Women's Center. These meetings and discussions have served as an important way to address departmental concerns and to facilitate dialogue among department constituencies.

2. Please describe the process by which you have continued to engage your department's faculty, students, and staff in discussions in order to seek feedback in the implementation of your Department DIAP.
 - a. If you have a DIAP Committee, please list the members of the committee and describe the work that the committee has done to date. How inclusive has the process been?

Our Department boasts a vibrant Diversity and Inclusion Action Committee that meets at least once per month to discuss a variety of agenda items, which prominently include department concerns that arise, recent news articles regarding diversity, and actions to be taken by various committee members. **20-30 undergraduates, graduate students, staff, and faculty routinely attend our ChemDIAC meetings.** The committee is led by Prof. Brenda Rubenstein, and is frequently attended by Profs. Paul Williard, Matthew Zimmt, and Jerome Robinson. Staff including Sheila Quigley, Eric Ferrara, and Rose Barreira attend. Undergraduate members include Kim Pham, Andrew Ton, Doug Shea, and Daniel Choi. Many graduate students attend including Kat Stephan (who recently received our Department Service Award), Elianna Isaac, Nathan Goff, Pawel Chielmniak, Vale Cofer-Shabica, Mary Tarantino (an MD/PhD student) and Brian Stankus. We are proud to say that attending our meetings has become routine among our first-year graduate students, who will anchor the committee for many years to come.

As already reported, we believe our key achievements to date have been the creation of our Anonymous Reporting form, our surveying of the graduate student body (and related actions undertaken last year), and our organization of department-wide implicit bias trainings.

3. What best practices would you like to share regarding your approach to your Departmental DIAP implementation over the past academic year (17-18)?

We are proud to report that, at all junctures, we have openly engaged our students, faculty, and staff in our ChemDIAC activities. ChemDIAC meeting agendas are sent to the entire Chemistry Department listserv several days before each meeting and we frequently flyer all relevant diversity events. **Many students have told us that they look forward to ChemDIAC discussions because they “embody what a liberal arts institution is supposed to provide,”** because they draw upon a multitude of perspectives. Open and meaningful dialogue is the key to our DIAC's success.

We are furthermore proud to reiterate our successful graduate student recruiting efforts this past year. **Profs. Jerome Robinson and Brenda Rubenstein actively invited every HUG student on our graduate recruiting lists (obtained from American Chemical Society meetings, SACNAS, NOBCHE, the Leadership Alliance**

Symposium, university trips to the University of Central Florida, Brooklyn College, and Kean University, and testing services) to apply to our graduate program for *free*. This irrefutably diversified our pool. Many HUG students who applied also happened to be among our top candidates. We have since matriculated two such students and offered our Presidential Fellowship to a stellar HUG applicant.

4. What are the challenges you have faced in your DIAP implementation this past year?

The two most difficult changes we face are: 1) increasing the diversity of our undergraduate students and 2) hiring faculty members from HUGs. Our body of Chemistry concentrators from the time I was an undergraduate at Brown (2003-2007) to today remains glaringly lacking in diversity. We have had only 1 HUG concentrator over the past several years. In certain areas, including Chemical Physics, we remain completely devoid of female concentrators. ChemDIAC members have furthermore noted the striking gender imbalance in awards given to students in our department based on academic merit - *only 20% of awards have gone to female graduate students and I remain the only female undergraduate to have received an award in Chemical Physics in over two decades*. Some of these discrepancies can be traced to pipeline issues; nevertheless, Chemistry must do a better job attracting and retaining a diverse body of students. Our Department is furthermore lacking in faculty diversity. Only 1 of our faculty members is from a HUG (1 of our HUG lecturers recently passed away); 4/17 of our faculty members are female. **A faculty hire with the intention of increasing diversity (in addition to advancing our science) is in great need.**

5. Please share example(s) of positive outcome(s) generated by the DIAP implementation work you have done to date.

One positive outcome not discussed above of our diversity and inclusion efforts has been the creation of a Graduate Student Diversity Mentors Program. Using \$2500 in funding from OIED, we are paying two graduate student mentors, Leonard Sprague and Wenyu Bai, to help mentor our diverse cohort of summer students, including disadvantaged high school students, international students, and undergraduates from other universities. This program represents an outstanding opportunity for our graduate students to hone their mentorship skills, while also providing much-needed support to our visiting students. Prof. Jerome Robinson in our department has moreover developed an IMSD module on mentorship in which our mentors (and many other students) will participate to train themselves. We expect that this program will broaden the perspectives of our graduate students.

A positive outcome this past academic year is that the department has appointed two full time lecturers who diversity the faculty demographic in the categories of HUG and service veteran although they balance the loss of two female senior lecturers.

6. Looking ahead, please state goals you would like to prioritize in the coming year. Please include any DDIAP related funding requested you anticipate submitting to the Office of Institutional Equity & Diversity for 2017-2018.
 1. Increasing undergraduate diversity by inviting and sponsoring more HUG students in our research laboratories.
 2. Sponsoring more LGBTQ+ events, including hosting an out LGBTQ+ speaker. ***This event may be cosponsored with other Departments and may result in an OIED funding request.***
 3. Understanding the lack of diversity in our undergraduate student body through further surveying of CHO100 and CHO330.
 4. Maintaining an inclusive graduate program by making the annual graduate student climate survey initiated by the DIAC a department mainstay.
 5. Supporting any efforts to hire diverse faculty.
 6. Continuing to award summer internships to HUG students, which may require OIED support.