



## **Diversity Recruitment and Retention Plan (Courses)**

The CSHL Meetings & Courses program is committed to the principles of broad participation, diversity, access, and equity in all of our educational offerings, including our postgraduate short courses and workshops. With the assistance of our course instructors, we aim to assemble classes of students from application pools that are diverse across many dimensions, such as institution, geographic region, gender, and race/ethnicity. In particular, our course program is committed to the inclusion of women, persons with disabilities, and U.S. racial/ethnic populations that are currently underrepresented in the biological sciences (URMs: Hispanic/Latino, Black or African American, American Indian/Native American or Alaska Native, and Native Hawaiian or other Pacific Islander).

Since 2009, we have closely tracked application and enrollment rates by trainees who self-identify as being from URM populations via a voluntary set of questions about race and ethnicity on course application forms. The short-term goal was to check program-wide statistics on an annual basis; the longer-term goal was to develop a framework that helped determine where resources would be best allocated in our diversity plan. During this time period, we began providing course instructors with formal Admissions Guidelines to clearly communicate our view on diversity in the classroom, as well as to provide guidance for how they can build a diverse and dynamic class from each pool of applicants. We also updated our website and are in the process of posting many of our policies online to increase transparency about our courses and financial aid.

Acceptance rates for URMs in our courses are generally on par with acceptance rates for all U.S. applicants (Tables 1 & 2 below), which leads us to believe that acceptance rates are not a limiting factor to increasing URM participation in our courses; that is, URMs are accepted into our courses at the same or higher rates as other U.S. applicants. We therefore conclude that our resources are now best utilized in outreach efforts to increase the number of applications from URMs, and in assessment efforts to ensure the learning environments in our courses are inclusive of all scientists regardless of race, ethnicity, religion, or nationality.

### **a) Overall Plan**

The following plan describes measures that are currently underway to strengthen our diversity recruitment and retention efforts at both the student and faculty level in our short courses and workshops.

- 1) We actively support individuals from disadvantaged economic backgrounds through extensive scholarship aid. The course selection process is independent of financial status and scholarship funds are allocated on a needs basis. On average, each CSHL course typically provides 50% of the accepted trainees with 50% scholarship support. In 2018, 61% of course trainees received some level of financial aid.

- 2) We actively support individuals with disabilities, in particular those with physical impairments. The infrastructure at CSHL is designed to be inclusive of those with physical disabilities so that they may participate fully in the course program. Furthermore, CSHL provides accommodating services whenever necessary to assist disabled course participants.
- 3) We solicit course faculty to partner with CSHL in the recruitment efforts for their course. The Laboratory orchestrates the largest effort in announcing courses, but coordinated efforts by the instructors continue to be one of the most powerful recruitment mechanisms. We actively encourage instructors to promote their course to diverse populations at professional meetings and poster sessions as well as through relevant committees and personal contacts.
- 4) We maintain contact with individuals known to the Laboratory through its programs who have developed successful recruitment strategies at their home institutions (e.g., current recipients of diversity training grants). We also discuss improved recruitment strategies with institutions that run training programs similar to those at CSHL, including the Marine Biological Laboratory (MBL) and the Jackson Laboratory (JAX).
- 5) We partner with major professional societies to assist in the recruitment effort. As an example, CSHL developed a program starting in 2006 in conjunction with the Society for Neuroscience and the International Brain Research Organization (IBRO), in which scientists from developing countries are eligible for IBRO Fellowships that can be applied toward neuroscience courses at the Laboratory. These fellowships are intended to benefit scientists who study and work in less financially advantaged regions such as those in Latin America, Africa, Central and Eastern Europe, Asia, and the Pacific. IBRO added a second component to this program starting in 2019, whereby faculty from U.S. minority-serving institutions are now eligible for IBRO Fellowships in CSHL neuroscience courses.
- 6) We ask URMs who have participated in past CSHL courses to encourage their peers to consider our educational offerings. These individuals are natural ambassadors who are best able to communicate to their peers the benefits of the intensive training available through the CSHL course program.

We combine elements of the strategy outlined above in parts 3-6 to develop a nationwide “network of referrers,” comprised of individuals strategically placed within their institutions or societies to encourage URMs to consider CSHL training opportunities. The referral network will continue to evolve over time to include key course instructors and faculty, individuals in key academic positions, individuals associated with relevant society committees, and course alumni.

### **Recruitment Activities**

Our overall strategy for diversity recruitment is to develop partnerships and programs that can potentially impact URM participation in a number of our courses and/or meetings. The motivation for this strategy is practical: with a limited staff, we must maximize the impact any new activity has on our programs in exchange for the time and resources that managing the activity requires. We must also ensure the activity is at least somewhat scalable to the number of programs we run each year (30 courses in addition to 25-30 meetings). Current recruitment and outreach initiatives aimed to increase participation by URMs in our programs include:

- Announcing our full calendar of meetings and courses each year to approximately 1,000 offices at minority-serving institutions.
- Attendance and active participation at national diversity events for the purposes of both networking and recruiting. This includes the annual SACNAS National Conference, the annual conference for the NIH Institutional Research and Academic Career Development Awards (IRACDA), the annual meeting for HHMI Gilliam Fellows, the NSF/AAAS Emerging Researchers National Conference in STEM, and the annual meeting on Understanding Interventions that Broaden Participation in Science Careers.
- Structured, targeted recruitment activities at SACNAS conference. This typically involves a booth in the main exhibit hall, raffles for conference registrations, a professional development session for biology trainees that features URM course alumni, and a table at the Graduate Student & Postdoc Networking Poster Session. The professional development session is organized in partnership with MBL and JAX and, since 2017, has focused on in-person networking opportunities such as short courses, summer research experiences, and Bridge programs.
- We ran a similar professional development session at the 2013 Annual Biomedical Research Conference for Minority Students (ABRCMS). While the session was successful, it is unclear if we will repeat it in the future. The programming at ABRCMS is targeted primarily to undergraduate students and, as such, it is more difficult to attract an appropriate audience interested in specialized postgraduate opportunities than it is at the SACNAS conference (which has a higher proportion of attendees who are graduate students, postdoctoral fellows, and independent investigators).
- We have regular discussions about recruitment strategies and best practices with the MBL and JAX. The three institutions were recently awarded a joint supplemental grant from the Howard Hughes Medical Institute to fund the following, among other projects: 1) a climate survey aimed at recent course participants, and 2) the development of online instructor training modules covering topics such as recognizing unconscious bias and creating inclusive classroom environments.
- The Meetings & Courses department also exhibits at large discipline-specific professional meetings each year and networks at diversity events sponsored by these societies (e.g., Society for Neuroscience, American Society for Cell Biology, Experimental Biology, American Society for Microbiology, and the American Society of Plant Biologists). The goals are to raise awareness about CSHL programs among trainees, recruit potential course instructors who are URM, and establish formal partnerships like the one currently in place with IBRO.

## **b) Statistics**

Our recruitment efforts for all courses continue to focus on improving the number of applicants from U.S. institutions, increasing the diversity amongst those applicants, and directing course instructors to include demographic factors in their selection process along with scientific factors.

Table 1 shows the overall composition of domestic versus international applicants and trainees for CSHL courses in the period 2011-2018. The data in the table clearly illustrate the increasing presence of U.S. scientists in our courses as well as higher acceptance rates for U.S. applicants over international applicants (53-64% versus 31-37%, respectively, during the past nine years).

**Table 1: U.S. versus international students in all CSHL courses, 2011-2018**

		2011	2012	2013	2014	2015	2016	2017	2018
Entire applicant pool	U.S.A.	551	609	625	586	588	674	661	679
	International	386	420	436	416	384	432	395	377
	Total	937	1029	1061	1002	972	1106	1056	1151
	% from the U.S.	59%	59%	59%	58%	60%	60%	63%	59%
Accepted students	U.S.A.	336	355	359	329	379	404	402	359
	International	130	147	135	146	142	151	139	127
	Total	466	502	494	475	521	555	541	486
	% from the U.S.	72%	71%	73%	69%	73%	73%	74%	74%
Acceptance rates	U.S.A.	61%	58%	57%	56%	64%	60%	61%	53%
	International	33%	35%	31%	33%	37%	35%	35%	34%

In Table 1, we define “U.S. applicants” to be applicants who identify themselves as U.S. citizens or permanent residents on their course application forms, or are from U.S. institutions. This definition includes, for example, U.S. citizens conducting postdoctoral research in European institutions as well as foreign nationals who hold tenure-track positions in U.S. institutions. Because our short courses train scientists at a broad range of career levels, from graduate students to independent investigators, we believe this definition best encompasses the proportion of course applicants who represent the U.S. biomedical enterprise.

As illustrated in Table 2, there has been a gradual improvement in recent years in the proportion of course participants who identify as being from URM groups. The percentage of U.S. applicants who self-identify as URMs ranged from 8% to 15% over the past nine years, and the percentage of self-identified URMs who were accepted into courses ranged from 8% to 17%. According to the National Science Foundation’s (NSF’s) statistics on women, minorities, and persons with disabilities in science and engineering (<https://www.nsf.gov/statistics/2017/nsf17310/data.cfm>), 14% of graduate students in 2014 were: 1) U.S. citizens or permanent residents, 2) in fields related to our courses (Agricultural Sciences, Biological Sciences, Multidisciplinary/Interdisciplinary Studies, and Neuroscience), and 3) from URM populations. The same data show that, in 2014, the proportion of research and scholarship doctorates awarded in these fields to URMs was 11%. Finally, 10% of all science and engineering students who earned doctorates in 2014 and had definite plans for postdoctoral study were from URM populations. Clearly, these data produce imperfect baseline comparisons for our purposes. However, the data do suggest that U.S. URM participation in our course program is generally in line with national averages.

**Table 2: U.S. underrepresented minority students in all CSHL courses, 2011-2018**

		2011	2012	2013	2014	2015	2016	2017	2018
Entire applicant pool	URM*	45	63	66	65	70	103	83	99
	Total from the U.S.	551	609	625	586	588	674	661	679
	<b>Proportion</b>	<b>8%</b>	<b>10%</b>	<b>11%</b>	<b>11%</b>	<b>12%</b>	<b>15%</b>	<b>13%</b>	<b>15%</b>
Accepted students	URM*	28	31	41	37	45	67	62	48
	Total from the U.S.	336	355	359	329	379	404	402	359
	<b>Proportion</b>	<b>8%</b>	<b>9%</b>	<b>11%</b>	<b>11%</b>	<b>12%</b>	<b>17%</b>	<b>15%</b>	<b>13%</b>
U.S. URM* acceptance rates		62%	49%	62%	57%	64%	65%	75%	48%

\*URM: Under-Represented Minorities (Black/African American, Hispanic/Latino, American Indian/Native American/Alaska Native, and Native Hawaiian/Pacific Islander)

Table 2 also shows that acceptance rates for U.S. URM applicants in our courses (48-75% over the past nine years) are roughly equal to acceptance rates for all U.S. applicants (53-64% during the same time period). Now that we have a few years of consistent historical data on the self-identified race and ethnicity of course applicants, our focus is on 1) recruitment so that the number of URMs who apply for our short courses increases, and 2) evaluating the training environment within our courses to ensure they're inclusive of all scientists who participate in them. Ultimately, we want to do "better than average" by increasing the proportion of U.S. URM trainees in our courses from 8-17% to 20-30% in a given year. This is because many of our trainees go on to become successful independent researchers. We therefore recognize that our courses are uniquely positioned to help diversify the biomedical research workforce, due to both their scientific and networking benefits. The CSHL Meetings & Courses program welcomes feedback and suggestions on how to further improve our efforts for effectively recruiting individuals from diverse populations and encouraging their participation in our programs.