EDITORIAL

nature biotechnology

Aligning stars of all colors

The biotech industry needs to do more to recruit people from diverse groups.

© 2018 Nature America, Inc., part of Springer Nature. All rights reserved.

It is two years since the biotech industry woke up to its gender gap. Prompted by an infamous cocktail party during J.P. Morgan Healthcare Conference week that featured 70 "scantily clad" models (all female), 230 biotech leaders signed an open letter condemning the event, its treatment of women "as chattel" and the lack of gender diversity in the life sciences industry as a whole. Since receiving that black eye, industry has been more vocal and mindful about the need to promote 'diversity'. Several companies have introduced placement programs to actively recruit women to boards, mentorship programs have been started to connect women with female life science executives and efforts have been launched to track the progression of female talent within companies. While this is welcome progress, the silence has been deafening with respect to the industry's other glaring diversity problem—the underrepresentation of minorities in the workforce.

Last summer, *Nature Biotechnology* partnered with the Biotechnology Innovation Organization (BIO) to survey workforce diversity in US private and public biotech companies. The online questionnaire was sent by BIO to 517 companies; 54 companies (10%) responded fully. As reported in the Feature (doi:10.1038/nbt.4046), the results show an industry out of whack with the demographics of the population it serves.

The proportion of non-Hispanic whites in the companies surveyed roughly mirrors the US population. From there, however, the picture looks very different: Asians are overrepresented by more than threefold, whereas African Americans and Latinos/Hispanics are underrepresented by two- and over threefold, respectively. In the C-suite, non-Hispanic whites predominate in both management teams (75%) and on boards (79%). Asians (who comprise 6% of the population) are also well represented, comprising 16% and 15% of management and boards in the sample, respectively. But blacks (who make up 13% of the population) hold only 3% of the executive positions and 5% of those on boards, and Latinos/Hispanics (who comprise 18% of the population) only 4% of management positions and just 2% of board seats.

Of course, the 54 companies participating in the survey represent just a fraction (2%) of the total universe of biotech companies operating in the United States (>2,700, according to Statistica); whether this subset is representative of the industry remains unclear. What's more, the sample is too small to provide reliable numbers on minorities like American Indians, Alaska Natives, Native Hawaiians and other Pacific Islanders. The survey also did not reveal whether diversity in startups is different from that in larger publicly listed companies.

So what lies at the root of the lack of workforce diversity? One factor may be implicit bias in hiring practices at companies where white management predominates. Another could be a limited 'talent pipeline'. As outlined by the US National Science Board, the science and engineering fields have historically had a low representation of blacks, Latinos/Hispanics, American Indians and Alaska Natives. Indeed, the nine-person editorial team at *Nature Biotechnology*, which draws from the same pool, contains no blacks, just one Asian and two Latinos/Hispanics. Another explanation is that underrepresented minorities may simply be actively dropping out of the life sciences by choice, entering instead other, more attractive, professions and careers.

Access to higher education, though, is also likely to play a role, with a wide disparity in US public education for those from economically disadvantaged neighborhoods (where blacks and Latinos/Hispanics are often overrepresented) and those from rich neighborhoods (where whites and Asians are often overrepresented). Economic hardship in many black and Latinos/Hispanics communities lowers the resources available to local schools (due to lower property taxes). And even if kids from these neighborhoods get the grades for college, fewer families can bankroll the tens of thousands of dollars required to attain a higher degree. The lack of minority role models to follow in the life sciences also doesn't help.

Some firms are taking steps to address these problems. In 2012, Vertex Pharmaceuticals launched a comprehensive STEM program, including a 3,000-square-foot classroom and laboratory for Boston students, high school and college internships, a science fair mentorship program and partnerships with local organizations like Bottomline, Hack.Diversity and i2 learning. Since 2015, Biogen also has been developing its Biodiversity Fellows Program to promote the development of black and Latino/Hispanic individuals. Genentech has similar internal efforts, championing African Americans in Biotechnology, Filipino Americans Coming Together (FACT) and South Asians and Latino Professionals (VIDA).

But initiatives like these are too rare; indeed, only a quarter of the biotech companies in our survey had any type of diversity program at all. In 2018, it is hard to believe that so few biotech companies gather or share data on diversity in their ranks, let alone track career progression of minorities. This journal believes there should be an industry-wide effort to gather such data across public biotech companies to increase transparency and enable progress to be tracked.

Beyond that, everyone in industry can do their part. It starts by looking beyond the circle of buddies and candidates from Ivy League colleges. And then by ensuring that merit supersedes pedigree in hiring; that job specifications don't include spurious qualifications that serve only to conserve the advantages of club membership; that gender and race are accounted for separately and not all lumped under 'diversity'; that the NIH consider appropriate racial balance in grant awards; and that local school systems in educationally deprived areas are given the financial support they need.

Some CEOs will say these are problems for society to tackle, not biotech companies with a legion of other competing priorities and risks. But workforce diversity and inclusion is well known to drive innovation and problem-solving—and biotech is no different. If we continue to choose denial over decisive action, industry will fall short of finding the stars it needs, and the rows about race that burn in America will start spreading to biotech boardrooms.

Published online 18 December 2017; doi:10.1038/nbt.4050.