EDITORIAL

nature biotechnology

Old boy biotech

No matter where you look in biopharmaceutical boardrooms, gender bias is evident. Is it so difficult to actually acknowledge this pernicious bias and actively discourage all-male boards?

Women remain under-represented in many walks of life. Gender bias is rampant in industries with the highest average wages, such as information technology (IT). Last year, diversity reports from Yahoo and Google, for instance, showed that women represented only 15% and 17% of their workforces, respectively. In the film industry, 78% of crews making blockbuster films in the past 20 years have been men, as have 98% of the directors. Surely the biopharmaceutical industry is better? For leadership positions, some companies are actually worse.

No company among the top 40 pharmas in North America and Europe has a majority of women within its senior management team. Bristol-Myers Squibb comes closest: it has three women in a team of ten (30%). Novartis, Bayer, Boehringer Ingelheim, Novo Nordisk, Lundbeck and Servier have no women *at all* in their senior management teams. Women hold only 16% of the senior management posts—58 out of 370 positions.

Perhaps we can dismiss these pharmas as dinosaurs—suits and ties clinging to the old ways. Biotech companies must be different. Distressingly, they are not.

Women occupy only 20 of the 112 senior management positions at the top ten highest-valued biotech companies: Alexion, Amgen, Biogen Idec, Celgene, Gilead Sciences, Regeneron, Shire, CSL Behring, Monsanto and Vertex. At 17.9%, the proportion of top executive positions occupied by women in big biotech is better than that in big pharma, but only marginally.

Never mind, though, there is a new generation of diversity-enlightened biotechs in the pipeline. Wrong again. The ten companies that raised the most money in 2014 through initial public offerings of stock (Acucela, Bellicum, Dermira, Fibrogen, Forward, Juno, Kite, Ultragenyx, Versartis and Circassia) boasted a whopping 18.6% of women in their management teams—not significantly different from the makeup of management in big pharma or big biotech. (Notably, the boards of directors of these firms are even worse, with women representing only 8% of the membership.)

Even at the very newest and very shiniest startups women fare no better. Of 70 senior executive positions at the ten companies that raised most in venture capital A rounds in 2014, only 12 (17%) were filled by women. Four of the ten companies—Allakos, Kinex, Annexon and Corvus—had zero female senior executives. Of 45 directorships at the ten startups, only one was taken by a woman.

And for researchers shaking their heads disapprovingly at these numbers, take a look at the scientific advisory boards (SABs) of these 10 startups. Of 45 SAB positions, only three (7%) went to women. Human Longevity has an SAB of 16 people; all are men.

The conclusion is then that gender bias is rife across pharma, biotech and the investment community that supports it. Of course, misogyny and bias in hiring is not all to blame; gender bias is also cultural and relates to educational preferences. According to the Organization for Economic Co-operation and Development, women show a fivefold lower enrollment in engineering, science and math degrees than men. In computer science, the share of women is lower today than it was in 1985. Thus, some in biotech look at these numbers and say they simply reflect the talent pool.

But based on company disclosures, the pharma industry trade magazine *Scrip* estimates that ~45% of pharma employees are women; for instance, Novartis employs 46% women at all levels; Sanofi, 45%; AbbVie, 50%; and Bayer, 37%. So the male boardroom takeover is not just a talent pool problem.

Creeping insidious bias in larger companies manifests itself as a series of filters that cull women the higher one goes. Take Australian pharma firm CSL Behring: 56% of its workforce is female, but that falls to 42% for "managers and above" and further to 30% at the vice president level, whereas its 'Global Leadership Group' of nine people features only two women (22%). And CSL Behring's bias rates are lower than those at most life sciences firms. In younger companies, the gender bias is immediately apparent in the composition of the founder team: a board of directors dominated by venture investors (and, therefore, predominantly male) endorses management structures that reflect their own working environment and proclivities.

So what to do? All too often, the response of pharma and biotech executives is, "It's not right, but unfortunately this is just the way it is." In the second decade of the twenty-first century, this is not acceptable. It is not 'unfortunate' to overlook the gradual leakage of female talent from a company. It is negligent. That more women don't make it to the upper echelons is not simply an unavoidable lack of fortune; it is the result of continuing bad practice in human resource management and tolerance for that bad practice on a corporate scale. It may also be that senior management is simply not attractive to qualified female applicants. If so, we should ask why?

Putting gender balance right has to be an active process, just as research, finance and corporate organization are active processes. It starts with acknowledgment not only that there is a bias but also that its existence costs money. By consistently failing to promote or include women proportionally in senior roles in life sciences, businesses sends out a clear message that disincentivizes around half the workforce (similar arguments can be made for ethnic bias). The diagnosis proceeds through measurement of its scale and assessment of its consequences. And the route to therapy can begin only when the mechanisms that underlie the obvious phenomenon are changed and implemented in hiring practices. A good place to start would be the boardrooms of those companies that include no women at all.