

Women in biotech: a personal perspective

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Analysis of 34 biotech companies suggests that women hold only about 10% of all Officer and Director positions in the biotechnology industry. This article will examine and suggest several potential reasons for this phenomenon and looks ahead to what the future might hold for women in biotechnology.

Personal observations

As a member of the biotechnology industry for over 20 years, I have been many things: employee, Vice President of Corporate Development, President, Chief Executive Officer, Director, Chairman, industry spokesperson and lobbyist. Throughout my career transitions, I have been one thing continuously – a female. In the past, I have not spent considerable amounts of time pondering the impact of my gender on my career, but it is a

topic on which I am frequently queried by others in the sector.

My experiences over the past two decades give me little reason to believe that my colleagues and coworkers thought any more about my gender in the context of my job than I did. The male CEO who hired me as the first employee at Immunex Corporation (Seattle, WA, USA) in 1981 cared little about my gender and a great deal about my newly minted MBA from the University of Washington (WA, USA) and my willingness to accept a position in a company that, at the time, had no name and was part of an 'industry' that had not quite finished its birth. As the company grew, I had numerous opportunities to advance with it – not only because I did my job well but also because the industry was so young that there were

few people who could do my job any better.

There are a limited number of individuals, male or female, who have the good fortune to help write the history of an industry and I am hesitant to let my own experiences speak with the voice of the entire female population of the biotechnology industry. However, after 20 years in the industry I can at least examine the status of women in biotech and how this status can be assessed. With nearly 1300 biotechnology companies in the USA and no formal system for tracking female executives within the industry, I have undertaken an analysis of my own with the goal of providing a rudimentary understanding of the role of women in biotech.

Women as officers and directors

As a nascent industry, biotechnology companies can be early start-ups with 10 employees, or industry leaders such as Genentech (South San Francisco, CA, USA), which is celebrating its 25th anniversary and employing more than 4500 people. There do not appear to be significant differences in the number of female officers or directors in companies at either end of the spectrum. A review of the percentage of female officers or directors at the 17 companies that comprise the American Stock Exchange Biotechnology Index (BTK; see Box 1) and at 17 companies that have most recently completed initial public offerings (IPO; see Box 2) and filed a Form 10-K for the fiscal year 2000 with the Securities and Exchange Commission (SEC), indicates that women are vastly underrepresented in these positions. The BTK group

Box 1. Companies in the American Stock Exchange Biotechnology Index (BTK)

Affymetrix (Santa Clara, CA, USA)
 Amgen (Thousand Oaks, CA, USA)
 Applera Corporation (Norwalk, CT, USA) – Celera Genomics Group (Rockville, MD, USA)
 Biogen (Cambridge, MA, USA)
 Cephalon (West Chester, PA, USA)
 Chiron Corporation (Emeryville, CA, USA)
 COR Therapeutics (South San Francisco, CA, USA)
 Genentech (South San Francisco, CA, USA)
 Genzyme Corporation (Levrkusen, Germany)
 Gilead Sciences (Foster City, CA, USA)
 Human Genome Sciences (Rockville, MD, USA)
 IDEC Pharmaceuticals (San Diego, CA, USA)
 Immunex Corporation (Seattle, WA, USA)
 MedImmune (Gaithersburg, MD, USA)
 Millennium Pharmaceuticals (Cambridge, MA, USA)
 Protein Design Laboratories (Mountain View, CA, USA)
 Vertex Pharmaceuticals (Cambridge, MA, USA)

Box 2. Companies with recently completed initial public offerings (IPOs)

Adolor Corporation (Exton, PA, USA)
 Aerogen (Sunnyvale, CA, USA)
 Ciphergen Biosystems (Fremont, CA, USA)
 DURECT Corporation (Cupertino, CA, USA)
 Dyax Corporation (Cambridge, MA, USA)
 EDEN Bioscience Corporation (Bothell, WA, USA)
 EXACT Sciences Corporation (Maynard, MA, USA)
 Genomica Corporation (Boulder, CO, USA)
 GenVec (Gaithersburg, MD, USA)
 Harvard Bioscience (Holliston, MA, USA)
 InforMax (Bethesda, MD, USA)
 ISTA Pharmaceuticals (Irvine, CA, USA)
 KOSAN Biosciences (Hayward, CA, USA)
 MediChem Life Sciences (Woodridge, IL, USA)
 POZEN (Chapel Hill, NC, USA)
 Rigel Pharmaceuticals (South San Francisco, CA, USA)
 Telik (South San Francisco, CA, USA)

represents the largest and most mature companies in the industry, those that were founded at a time when there were fewer women in the workplace generally and fewer female scientists than there are today. The IPO group represents the newer generation of biotechnology companies, established during a time when an increasing number of women had entered the workplace and the laboratory.

Data were obtained from corporate annual reports, SEC filings on Form 10-K for the fiscal year 2000, from Proxy Statements filed with the SEC for 2001 and from corporate web sites. The 17 companies in the BTK group had a total of 177 corporate officers and 141 directors. There were 29 female officers (16.4%), with two of the 17 companies having no women officers. There were no female CEOs, one female chief financial officer, one female chief medical officer and two female chief operating officers. The majority of female officers were vice presidents. Of 141 directors, 12 were female (8.5%); eight companies had no female directors. There were no female chairmen and only one company of the 17 had no women in either officer or director positions.

The 17 companies in the IPO group had a total of 124 directors, of which eight (6.5%) were women; there were no female chairmen. Of a total of 86 officers, 11 (12.8%) were female, including one female CEO and two female chief financial officers (of which one also served as chief operating officer). Seven companies had no women in officer or director positions.

Thus, despite 20 years of industry growth, women still hold very few of the top positions in the biotechnology industry, despite the increasing number of women in the workforce and the rise in the number of advanced degrees in business or biological sciences awarded to women. Is it possible that in 20 years, women have made no progress up the biotech corporate ladder?

Reasons to be optimistic...

Although the highest management positions in the biotechnology industry appear to remain out of reach for most women, senior and middle management positions are providing women with a foothold from which to reach the next level. Many of the companies surveyed have good female representation at the director, senior director and vice

president level, especially in areas such as communications, human resources, facilities, regulatory affairs and scientific departments. This probably reflects a growth in the number of women with the scientific or business experience necessary to compete successfully for such positions. Additionally, the growing number of women at these organizational levels creates a pool of qualified female applicants for positions at the uppermost levels of the biotechnology industry.

...and causes for concern

The increase in the number of female middle and senior managers raises the troublesome question of why this momentum is not continuing upward to the officer and director positions from which women remain noticeably absent. There are several possible reasons for this trend:

The numbers game: The pool of women with long-term experience in the biotechnology industry is smaller than the pool of similarly qualified men, thus increasing the likelihood that director and officer positions will be filled by men.

The name game: With fewer than 1300 companies, biotechnology is an industry in which networking and word of mouth recommendation is a key mechanism for filling positions. Women, as more recent additions to the industry, might not be as well hooked into these networks as their male counterparts. This could impact both the filling of open positions at existing companies as well as obtaining venture capital for women to create start-up biotechnology companies.

The nurture game: Many women in the biotechnology industry achieve a level of expertise that qualifies them for upper level positions at the same time that they start families. As officer and director positions generally lead to increased amounts of travel, longer hours at the office and fewer vacations, some women with children might actively opt not to pursue these opportunities until their children are older. These are tough choices

faced by a growing number of women, and men. However, there is also a passive form of missing opportunities that is somewhat more concerning because it disproportionately affects women. In this scenario, a woman unable to travel late in her pregnancy might miss an opportunity to present at a conference, be a face-to-face participant in an important business meeting or to participate in a financing road show. During maternity leave, women might miss out on opportunities to contribute to strategic decision-making processes, establish relationships with incoming personnel or come to the aid of a colleague in need of help or support. Although it is highly unlikely that women will be actively penalized in these scenarios, the fact remains that they could miss opportunities that would give them additional expertise or allow them to demonstrate their value to their colleagues and their companies, thus slowing their career trajectories.

Where do we go from here?

So it seems that 20 years into the biotechnology revolution I, as a female

CEO, am still somewhat of a curiosity. And the path I took to get to my current positions – getting in on the ground floor of a truly dynamic industry – is not especially useful to women seeking to advance up the career ladder today. What are the prospects for the women who, today, are middle and senior managers? Personally, I think they are pretty good. The dynamic nature of the biotechnology industry will continue to create new opportunities through the growth of existing companies and the establishment of new companies. With a greater pool of qualified female applicants pursuing higher level positions, the numbers game should begin to balance out, and as women become a more integrated part of the existing biotech network and establish their own network, the name game will include more players named Barbara, Susan or Nancy.

The issue of balancing career opportunities with family life is not likely to be resolved any time soon, in biotech or in any other industry. But I believe that progress in this area can be made if all

parties involved – women as individuals and companies as employers seeking to retain valued personnel – remain flexible in their attitudes and committed to ensuring success for both the individual and the company.

Although it can be frustrating to many that the advancement of women in the biotechnology industry is moving incrementally rather than by leaps and bounds, the industry itself provides a good way to keep things in perspective. With everything that has been learned over the past 25 years, it still takes about 15 years to bring a new biotech product to market. It can be a very long road, but all of us – industry executives, scientists and patients – agree that the pay-off is well worth the cost. I believe the same can be said for the development of female biotechnology executives. Despite the known product development hurdles, over 117 biotechnology products have been approved since the industry's inception, most of these in the past five years. If women in biotech follow the same trajectory, the future certainly looks bright.

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