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The Talent Shortage In Biopharma Demands A Creative Solution

By Philippe Cini, Tunnell Consulting

The demand for new talent in the biotech industry was already reaching new heights before the COVID pandemic, and now it is even more obvious. The dramatic uptick in demand is driven not only by the chaos of coronavirus but also by the fact that 2020 and 2021 were both record-breaking years for biotech IPOs, and healthcare investment is at an all-time high. Investments are being driven in part by recognition by government and industry of the threat a pandemic brings and also due to the delivery on the promise of personalized medicine, such as commercialization of gene and cell therapies, which call for a new set of specialized skills. Venture capitalists are being asked to invest in life sciences companies, and are more likely to do so, putting capital behind early-stage companies that are especially eager to attract new talent, making competition for skilled workers even more fierce.



Also, as API manufacturing and contract manufacturing organizations (CMOs) are largely dominated by China and India, it is evident that this link in the pharma supply chain became broken during the pandemic. Coupled with changes in the political headwinds, there is a push now to bring API sourcing and contract manufacturing back to the U.S. – a solution that may solve some supply chain issues, but at the same time may further exacerbate the domestic talent shortage.

Pharma 4.0 And The Transition To New Tech

Complicating the HR dilemma is the fact that an increasing level of complexity and new technologies are changing the requirements for new hires, with more diverse technical and scientific skills required. That increasing level of complexity, and corresponding need for new talent, also results from new therapeutic solutions including one or several molecules (APIs and drug substances), delivery systems (molecular and devices), diagnostics, and artificial intelligence.

Equally significant to the life sciences job market is the transition to digitalization in the laboratory and a model based on “Pharma 4.0,” an operating model designed to usher in a higher level of connectivity, transparency, and adaptivity, faster decision-making, and better control over the business and operations. This digital transformation demands a new skillset, where new hires are skilled not just in the science of biopharma but in the technology that drives it as well. The industry has always been resistant to change, and with good reason, but that resistance to change also resulted in outdated laboratories, manual data input, and a general lack of connectivity and visibility in the laboratory, even to the point that some laboratories still rely on paper notebooks to record results. The digitalization revolution in the biopharma industry is, on the one hand, making it far more efficient and capable of delivering more accurate results, faster; but on the other hand, it has mandated an entirely new skillset as laboratories bring in new types of software platforms to enable this paradigm shift.

Newer Business Models And Collaboration

The industry will also need talent that can operate in new business models that are more complex. The industry demands new hires who possess the ability to work seamlessly across organizational boundaries and within private-public relationships, academia, and between government and the private sector. Personnel must also be able to flourish in complex, cross-functional teams and may require an additional set of skills that combine pharma and scientific skills with scrum theory or Six Sigma. In addition to on-the-ground staff requiring deeper skills, managers and leaders will also need to be adept at working within the next-generation Pharma 4.0 reality.

Within this mad push for hiring new staff with an increasingly rare and valuable mix of skills, each new employee must also be trained in GxP practices, standards, compliance, and more, which can take several months, slowing down the drug development process and driving up costs. Complicating this is the increased demand for greater speed and faster rollouts, which raises the bar not only for scientific staff but also for leaders and managers.

What Can A Biopharma Company Do To Address The Issue And Gain A Competitive Advantage?

First and foremost, a biopharma company must acknowledge the changes that are rapidly taking over the industry, including:

1. Newer technology and Pharma 4.0 models demand a deeper technological skillset.
2. Venture capital interest and a growing number of smaller startups make hiring more competitive.

3. Employees must be able to move out of their comfort zones to collaborate with other areas of the organization, as well as with partners and clients, as the life sciences company ecosystem becomes broader and more complex.

Once hiring managers have acknowledged these new realities, new hiring methods must also be put in place to accommodate them. These methods may include:

1. New and more in-depth skills assessments to ensure that candidates have both the scientific and the technical capabilities to work in a modern, technology-based laboratory based on Pharma 4.0 principles.
2. Laboratory work cannot be done remotely but hiring can. Expand the use of virtual interviews to gain a broader audience of potential candidates.
3. Cultivate future leaders by considering the communications and management skills of all candidates.
4. As recruiting becomes more challenging, consider leveraging the skills of a recruiter who specializes in life sciences and understands the particular needs of this industry.

Companies facing these challenges will need to put a higher priority on strategic recruiting to get ahead of the growth and demand curve, develop relationships with industry organizations and universities, and pay equal attention to the skillset required and the cultural fit of candidates. On the other side of the coin, candidates will need to be aware of the rapid advances in technologies used in the pharma lab and the complexities of regulation and compliance, while also keeping abreast of both established and younger biotechs competing for talent.

About The Author:

Philippe Cini, Ph.D., is Chief Strategy Officer at Tunnell Consulting. He has extensive experience in developing business consulting teams and providing support to large organizations. With more than 20 years of experience in the pharmaceutical and life sciences industry, Cini is an expert in Quality by Design and has insights into areas that have become critical to companies in this segment, including R&D, operations management, lean manufacturing, Six Sigma, and change management.

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