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ASIA EDITION

Bridging the Talent Gap in Life Sciences Sector

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Academic institutions, industry events, and mentorship programmes need to work more closely together



The life sciences sector is constantly moving forward, with new scientific breakthroughs and technologies changing the way we understand, diagnose, and treat diseases. As research continues to validate new tools and techniques, it is gradually making existing methods faster, more accurate, and more reliable. To adapt to the pace of these developments, it is crucial to find enough skilled people who can keep up with the changing landscape.

While hiring the right talent matters across sectors, it becomes even more critical in advanced scientific fields like genomics, where niche technical expertise must go hand in hand with a strong research and innovation mindset. Today's healthcare ecosystem is looking for professionals who can move comfortably across different disciplines, bringing together laboratory, clinical, and analytical knowledge while also keeping an eye on the bigger picture and the business impact of their work. As these areas become more closely connected, the need for people who can move seamlessly across different fields of expertise continues to grow.

Traditionally, life sciences required domain-specific expertise, experience in hands-on techniques, academic research knowledge, and focused small research environments. Over the years, the gradual shift to interdisciplinary thinking and impact-driven problem-solving has changed the talent pool required.

A widening skills gap

Today, the challenge in hiring in the life sciences sector stretches across lab-based practical roles, where the number of trained professionals who have experience with modern technologies is relatively small, to scientists who can translate research into clinical outcomes as well as expertise to work on large biological data analytics.

Laboratories increasingly look for professionals trained in modern molecular and genomic technologies. At the same time, clinical research programmes need scientists who can design and manage studies that bring discoveries closer to patient care. At the same time, making sense of complex biological information requires people who are comfortable working with both science and analytical tools. These challenges are amplified as there is a growing demand from diagnostics, biotech, and research organisations.

Strengthening talent pipeline

While India has the capabilities and a young population eager to contribute to the country's advancement, addressing this challenge will require sustained efforts to strengthen the talent pipeline through closer collaboration between academia, industry, and policymakers.

Universities need to implement more interdisciplinary education programmes that combine biology with genetics and analytical skills to mirror modern research practices together with practical training programmes.

Industries are now partnering with academic institutions to develop research programmes together with scientists from their research facilities. Academic institutions together with research organisations provide students and entry-level researchers access to actual research settings. Programmes that combine laboratory experience with practical skills in analysing biological information are becoming increasingly valuable in preparing the next generation of professionals.

In addition, short-term certification programmes, industry-led training, and digital learning platforms can help bridge knowledge gaps and keep the workforce current.

Looking ahead

Scientific progress in life sciences is set to keep advancing at a rapid pace. To build capacity in terms of talent, the sector needs awareness to be created at an early stage of learning where students are provided information on the emerging career pathways and how they can build the right skillset right from the beginning.

When academic institutions, industry events, and mentorship programmes work more closely together, they can spark genuine interest among young professionals to explore fields like genomics, bioinformatics, and precision diagnostics. At the same time, when industry steps in with tailored training programmes and early mentorship, it helps young students and professionals feel more prepared to turn scientific ideas into real-world patient impact.

When academia and industry work more closely together, and there is a continued focus on building the right skills, the life sciences sector can nurture a workforce that not only understands innovation but is also able to turn it into real, meaningful healthcare solutions for patients.

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