

Fostering inclusion: Empowering women in STEM

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With over two decades in life sciences, I've witnessed an encouraging increase in initiatives and opportunities for women in STEM, particularly in recent times. This part is particularly close to my heart, as when I began my career, there weren't as many women visibly present in the field. This has definitely changed for the better. Our innovative ideas, diverse perspectives, and relentless pursuit of knowledge not only help in bringing or identifying solutions to various scientific and technology problems but also build great careers and contribute significantly to national growth and development. From ground-breaking research to technological advancements, women in STEM are at the forefront of shaping India's future.

It's heartening to see a growing interest among women in pursuing STEM courses. More and more young girls in India are recognizing the opportunities available in these fields and are choosing to embark on paths that lead to careers in STEM. Data from the All-India Survey on Higher Education (AISHE) reveals a rise in female enrolment in UG, PG, MPhil and PhD levels, with the number jumping from 94 lakh in 2020-21 to 99 lakhs in 21-22. This trend signifies a positive shift towards greater gender diversity in STEM disciplines.

However, despite this growing interest, we cannot ignore the persistent challenges that hinder the full participation of women in STEM. The statistics reveal a stark reality: while nearly 43 per cent of all STEM graduates in India are women, they represent only 14 per cent of scientists, engineers, and technologists in key roles in research development institutions and universities. This glaring gap, often referred to as the "leaky pipeline," highlights the systemic/cultural barriers and biases that continue to impede the progress of women in STEM careers. This trend is influenced by a myriad of factors, including individual choices influenced by domestic and care burdens, as well as biases, stereotypes, and systemic barriers present both at home and in workplaces.

To support women in entering and dedicating themselves to the field of STEM, it is imperative to address cultural biases through awareness-raising initiatives and policy interventions. Often, women themselves struggle to challenge societal gender stereotypes. To quote an example from my experience, I've seen talented young women



Sridevi Khambhampaty, VP – Biopharmaceutical Development, Syngene International, gives an overview of the evolving landscape of STEM, emphasises the importance of gender diversity and inclusion in this field and spotlights both progress and persistent challenges. She advocates addressing systemic barriers and promoting awareness through mentorship, scholarships, and proactive hiring practices

with promising careers in STEM relocate for their partners. While career discussions are crucial before marriage, it's important to encourage open communication where both partners consider relocation options. I think women need to be supported and coached to have such conversations challenging the status quo and societal expectations rather than making unilateral sacrifices. Likewise, many workplaces may not have a conducive environment for women to thrive—these should be actively raised by women and addressed. I strongly believe in "being the change you want to see".

Several policies seek to address these issues. For instance, the Govt. of India's Science, Technology, and Innovation (STI) Policy 2013 promotes gender parity in STI activities. Additionally, the Department of Science and Technology

has implemented various programs under the scheme 'Women in Science and Engineering-KIRAN (WISE-KIRAN)', such as the 'Women Scientist Scheme' to encourage women to return to the workforce after career breaks and the 'Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE)' program for the development of infrastructure and research facilities for women. Additionally, the Vigyan Jyoti program encourages high school girl students to opt for STEM, with a focus on rural areas.

Reflecting on my own journey, I can attest to the importance of mentorship, support, and opportunities in shaping the scientist I am today. I have been fortunate during my education to receive guidance from mentors who believed in my potential and encouraged me to pursue my passion for research and development in the STEM field. As I embarked on my professional journey, I continued to benefit from the mentorship of experienced colleagues who provided valuable insights and guidance, helping me hone my leadership skills and make meaningful contributions to the scientific community. Today, I am proud to pay it forward by offering the same guidance and support to aspiring women leaders at Syngene.

Syngene, a leading integrated research, development, and manufacturing services company, actively supports initiatives aimed at promoting gender diversity and inclusivity. The company's commitment to fostering a culture of diversity and inclusion is evident in its collaboration with the Research and Innovation Circle of Hyderabad (RICH), the nodal agency for Hyderabad Science & Technology (S&T) Cluster, an initiative of the Office of Principal Scientific Advisor (PSA) to the Government of India, to establish a STEM scholarship program. This program provides financial support, mentoring, and internship opportunities to women studying STEM subjects, particularly at tier 2 and 3 institutions. Twenty-one women under the first cohort have been placed across organizations. Syngene scientists will further mentor these women, giving them real insight into their chosen career paths.

Furthermore, Syngene's proactive approach to addressing gender disparities extends to its hiring practices. In the current financial year, out of the total 2,500+ individuals hired by Syngene, 44 per cent were women. Additionally, in FY23, 54 per cent of the 402 new graduates hired by the company were women, reflecting Syngene's efforts to encourage more women to pursue careers in STEM. Syngene's dedication to gender equality and commitment to promoting gender diversity at the highest levels of leadership is evident in the composition of our board of directors, where women constitute 50 per cent of the board.

Empowering women in STEM isn't just about achieving gender equity; it's about unlocking the full potential of India's brightest minds and shaping a brighter future for all. India's leadership in STEM graduates, coupled with the surge of women entering these fields, presents an incredible opportunity to tap into this vast, untapped human capital. Let's all do our bit, whether it's through mentorship, industry-academia collaborations, or simply inspiring young girls with the power of science.