Innovation and technology to take India’s pharma industry to new heights in 2022

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The Indian pharmaceutical industry is the third-largest in the world by volume and contributes significantly to global health. Over the last two years, as the world battled the COVID-19 pandemic, despite constraints, the industry exhibited its commitment and strength by supplying essential medicines to over 120 countries. With an export value of $24.44 bn (2020-21), the products of the Indian pharmaceutical industry continue to improve health outcomes for patients worldwide. In India, the industry not only provided adequate medicines but also contributed to the fields of preventive healthcare, sanitation and quarantine facilities. The Indian pharma industry responded to the challenges of COVID-19 by evaluating the possible utilisation of available drugs (repurposing drugs) and exploring innovative approaches to fight the pandemic. In addition to this, our country is a globally-accredited manufacturing hub and meets 60% of the world’s vaccine demand. The pharma industry developed indigenous vaccines to
combat COVID-19 and exported more than 6 crore vaccine doses.4

The pandemic presented an unprecedented situation for the healthcare industry as a whole, and the pharmaceutical sector rose to the challenges posed by the pandemic. After having established itself as one of the leaders in the generic space, the industry is now poised to expand its innovation and research and development (R&D) capabilities to offer cutting-edge products at affordable prices.

**Leveraging and fostering intellectual potential**

To consolidate its position in the global healthcare market, the industry needs to build on its fundamental strengths while making a quantum leap towards innovation. Infusing new capabilities into the business functions across silos will enhance efficiencies and help India achieve its vision of growing its pharmaceutical industry to $130 bn by 2030. This is the time to evolve from ‘Make in India’ to ‘Discover and Make in India, for India and the World.’

Leveraging and fostering intellectual potential can help us gain a foothold in the international market which is veering towards personalised medicine. Establishing expertise in specialty and innovation-heavy pharmaceutical areas such as complex generics, novel biologics and biosimilars, preventive medication and those with unmet therapeutic needs will be the next step to fueling the engine of growth. This can be achieved by strategically upgrading our academic curriculum to meet industry prerequisites and incentivising academic institutions to train and generate a pool of highly skilled human capital.
Adopting a robust and conducive ecosystem

An integrated endeavor involving all the key stakeholders in the industry—patients, healthcare professionals, pharma industry players, policymakers, academic personnel, auxiliary industries—is needed to translate innovations into commercial successes. A strong, simplified and efficient regulatory system can aid in expediting the drug discovery cycle. A ‘single-window system’ can help streamline the entire drug development process by avoiding multiple regulatory bodies and facilitating fast-track approvals of commercially viable projects. Funding avenues that can be explored to encourage private sector investment in R&D and innovation can range from budgetary support, venture capital, corporate social responsibility along with novel financial instruments to specifically fund high-risk or long-term projects. To foster a culture of innovation, policy enablers can help in the cohesive development of research aligned with industry requirements.

Industry-academia collaboration through infrastructure enhancement, incubation centres and industry-driven centres of excellence can enhance our talent pool and identify projects which can be efficiently translated from the lab to the market. Finally, an overarching central group that enables thought leadership, cross-stakeholder dialogue and ongoing collaboration can offer course corrections when needed to set India firmly on its path to being an innovation and technology hub.

Conclusion

The pandemic offered key insights into the mobilising capabilities of this important business vertical, and more importantly accelerated the realization to foster
innovation. The Indian pharmaceutical industry already has the advantage of scale and reach in the global pharmaceutical space. Our country now needs to move up the value chain by scaling up its R&D and innovation to provide affordable yet innovative products which can cater to the unmet needs of patients worldwide. The key drivers will be continuous regulatory reforms, innovation funding, industry-academia collaboration and innovation infrastructure with focus on patients. With the help of an enabling ecosystem, the multiple industry stakeholders can strive together to make India an innovation hub and deliver Innovative, Quality and Affordable medicines to patients in our country and across the world, fulfilling the philosophy of Vasudhaiva Kutumbakam (the world is one family).