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Let's make India known for innovations'

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As a scientist-turned entrepreneur, my journey has taken a long time, with many struggles along the way. For an entrepreneur every step is a milestone. He must possess a keen eye to identify problems of the society and solve them. I was born into a middle class agricultural family in a village near Thiruthani, Tamil Nadu. I studied agriculture, against my father's wish and began my career with Bayer's agricultural division due to economic pressure.

The Rotary Foundation's Freedom from Hunger Scholarship bolstered my ambitions and allowed me to pursue my MS from the University of Hawaii, US, and subsequently get a PhD, in molecular biology from Department of Plant Pathology, University of Wisconsin- Madison. It is at the University of Wisconsin-Madison that I learnt to think, analyse and carefully interpret science. My thought processes and appreciation for science were transformed while listening to lectures by Nobel laureates and National Science Academy winners at the University.
I always believed in taking the unconventional approach and to further research after my PhD, and teaching, I joined the Medical University of South Carolina-Charleston.

It was here that I first began to think that I need to pursue the path of entrepreneurship if I were to do something for the society. It was a tough decision, especially to leave a flourishing professional career. But, two women in my life, my mother and my wife Suchitra, backed my decision to return to India in 1996 to start my entrepreneurial journey. After the touching down in India, my first challenge came from policy makers and regulatory authorities who were neither familiar with the word 'biotech' nor convinced on its outcomes. Given my background as a first generation entrepreneur from a farming background, raising funds for my project was a huge struggle at the beginning stage of my entrepreneurial journey was to.

At that very time, another biotech company had submitted a Rs 65-crore (Rs 650 million) proposal and mine was for Rs12.5 crore (Rs 125 million). My proposal did not find favor as it was all together a new environment for them and, as a subject with no benchmark in the country, they also felt that I didn't know what I was doing. I did not let this setback deter me from my goal- I knew exactly what I was doing and overcame this problem with funds and committed support from my family and fellow scientists from the US, who were convinced with my vision for Bharat Biotech.

Money never motivated me to become an entrepreneur. It was the hunger to develop a novel approach to make an indigenous vaccine for India, one that was not only world class but also affordable. I wanted to use what I learnt during my interactions with professors and Nobel Laureates to realize this vision, and with a team that shared the same passion and substantial understanding to make science work.

To achieve this, my team of young scientists and I, took a bold step to build an indigenous world class R&D and manufacturing facility with innovation at its heart. We set out and developed an indigenous Himax technology that allowed us to bring down the cost of the production for hepatitis B Vaccine. This also made us the first company in the world to introduce cesium chloride-free hepatitis B vaccine.

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Innovation is at the heart of our business mission. It motivates us. Our focus was to foster initiatives that can tackle the regional diseases that affect developing world populations. This not only gave us leadership status in the sector but also the confidence that we have the capabilities to develop novel vaccines like global MNCs. In January 1999, we rolled out our first product Revac-B, our hepatitis B vaccine. With over 500 million doses delivered for the Government of India's National Immunization Program at Rs 10/- a dose, we achieved the milestone of being the largest producer of hepatitis B vaccine doses with exports to Pakistan, UNICEF and Latin American markets, amongst others.

We love challenges. Our next goal, as committed to the Bill and Melinda Gates Foundation, was to develop and supply Rotavac at $1-a-dose. One of the most satisfying moments in my journey as an entrepreneur came in 2013, when we declared successful results of our social innovation program Rotavac phase III safety and efficacy clinical trial program in 8,000 subjects in the entire developing world conducted in the new born babies with investment of `350 crore under International Public Private Partnership supported by National Scientific Agencies and the
Gates Foundation.

Last year we launched two path-breaking vaccines, Typbar TCV, the world's only typhoid conjugate vaccine that can be given to both children below the age of six and adults; followed by Jenvac. Very soon we will roll out Rotavac in the market. The three vaccines will always be fine examples of what successful public-private partnerships.

I feel proud that Bharat Biotech catalyzed the creation of the Genome Valley in Hyderabad, which is a hub for more than 100 knowledge-based biotech companies. This was possible as we were advisor to the former government. We convinced them to create a genome valley that led to the development largest biotech cluster in India. In these 15 years of journey we are also proud to have delivered 2.8 billion doses and were also responsible for polio eradication.

Today, our company delivers vaccines to over 65 countries around the world.Running a successful and profitable company is an incredibly trying experience that takes dedication, hard work, and sacrifice. Wearing hats like that of a scientific advisory member to the Union Cabinet of the Government of India and chairman and board of governors, NIT, Warangal, today enables me to contribute back to the society to create a better eco system for innovation and entrepreneurship and also putting emphasis to build a stronger PPP environment.

For an enterprise to succeed, it must also collaborate with government and regulatory agencies and the financial institutions in a balanced manner. I must say that the Technology Development Board, DBT, and Department of Science and Technology, BIRAC and CSIR gave their immense moral support and financial assistance in our journey of growth. Especially, financial institution like the SBI, who believed in our enterprise vision and offered their continuous support when I was in dire need.

An enterprise must work in harmony with financial institution and scientific establishment and regulatory agencies to make India an innovative country.

Dr Krishna M Ella is founder chairman of Bharat Biotech International, Hyderabad. He was the BioSpectrum Entrepreneur of the Year 2003 and BioSpectrum Person of the Year 2013

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