

Our next guest is Dr Kiran Mazumdar Shaw founder of the country's, or perhaps even Asia's leading biotechnology, enterprise Biocon.

A pioneer of the biotechnology industry her journey began in a garage in the 1970s and with grit and determination to buck the trend of Indian women running a corporation, Dr. Kiran has turned Biocon into an innovation nerve-centre that is committed to affordable solutions in healthcare. She is living proof that girls can do anything they set their minds on.

Through Word to the W.I.S.E, we will continue to build on our legacy: driving transformative change in pursuit of a safer and more resilient society by inspiring more young women to a career in the field of STEM.

Remember, you too can nominate more remarkable women to be part of the show. Or just send in your questions for future guests on the Word to the WISE podcast.

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You can also **read** along as you **listen** to the Word to the WISE host *Shivraj Parshad* in conversation with *Dr. Kiran Mazumdar Shaw*.

**Host:** Dr Kiran Mazumdar Shaw. It is a privilege to have you on the Word to the WISE podcast.

**Dr Kiran Mazumdar Shaw:** It's a pleasure. Thanks.

**Host:** Now you are a public figure and there has been so much written about you. But if I may ask you to go back to that little girl from your past, accompanying your father to the brewery, you had different ambitions back then, right?

**Dr Kiran Mazumdar Shaw:** Absolutely Shivraj. Basically, I had a very different perspective on where I wanted to go. When I was a young girl, I actually wanted to become a doctor. And I can share with you that it was my inability to basically pass through the portals of any medical college that got me to basically pursue a BSc honours in biology and chemistry. And it was thereafter that, I started getting very interested in microbiology and fermentation science, which then led me to Australia, thanks to my late father's persuasion. When I took up brewing, science, which actually was a very unconventional, , thing for a girl to do, but, , he felt that it was biotechnology and fermentation science was a science that had many, many applications in different fields and he encouraged me to pursue it. And that's what I did. I went to Australia, studied doing science, you know, got very excited with what it could do. Got very interested in microbial fermentation because that's what doing science is about. It's about fermenting, various kinds of grains using yeast and then making different kinds of beers from it. And so when I came back to India to pursue a brewing profession, I suddenly hit the gender barrier and people didn't

want to hire a woman as a brewer. And that's where I then changed my tack . My destiny changed and I started a biotech company instead.

**Host:** And I gather it all began in a garage in the 1970s with a very small, dedicated team, but it wasn't easy. You've often described yourself as an accidental entrepreneur. Why is that?

**Dr Kiran Mazumdar Shaw:** Well, I just mentioned to you that I was unsuccessful in, in pursuing a career in brewing. And I was all set to basically pursue a brewing career anywhere in the world, when an accidental encounter with a, an Irish biotech entrepreneur changed my fate. Because he wanted to set up a biotech company in India. He had tracked me down because of my Australian brewing days and discussed what he wanted to do in terms of developing and researching enzyme technologies. And, , just because I wasn't that successful in getting a brewing job I thought, why not try this out? And that's how I decided to become an entrepreneur instead, even though I felt it was a foolish thing for me to do, because like I had explained to my Irish partner, I said, you know what? I don't have any business knowledge or acumen. I don't have money to invest in this business. And, you know, I'm a woman, which is very difficult in a country like India to run a business with. So that was my perspective, which of course, then he did not agree with and encouraged me to pursue an entrepreneurial journey.

**Host:** And as you pursued your entrepreneurial journey, I gather you came up against a lot of hurdles in terms of investment, in terms of growth. And then of course you acquired the company yourself. Could you describe how you then overcame all of those challenges?

**Dr Kiran Mazumdar Shaw:** Yeah. I very soon realized that whether it was about getting a job or starting a company, there was a huge gender barrier, gender bias, whatever you might call it. And, it all basically stemmed from a huge credibility crisis that women had to overcome. Because I think people just didn't feel that women could run businesses, managed businesses and, you know, basically take calculated risk. So, I think that's the big barrier I was up against. So, banks didn't want to lend to me because they thought I was high risk. People didn't want to work for a woman entrepreneur because they thought I was high risk from job security point of view. And of course, you know, trying to run a business that nobody understood because biotechnology was not a business that anyone understood and that made it even more difficult. So, access to capital was difficult. Recruitment was difficult, and then trying to sell my business for investors or to investors was also very, very difficult.

**Host:** Now Biocon became the first Indian company to manufacture and export bio enzymes globally. What made you make a turn towards finding biotech solutions, to address healthcare, especially affordable healthcare?

**Dr Kiran Mazumdar Shaw:** So, I started my business by developing enzyme technologies, which, you know, at that time was really about greening businesses, you know, moving from chemical technologies to enzyme technologies. Which was an idea way ahead of its time. There was no concept of sustainable development or eco-friendly technologies at that time. And, you know, pollution was the last thing on people's mind. So I think I was trying to basically peddle a technology that nobody found that important to invest in, at least in the Eighties and Nineties. It's

only now that people are beginning to look at enzyme technologies very seriously, because we know how difficult and dangerous it is to use chemical pollutants or chemically polluting technologies, which definitely need to be replaced. But 20 years into my journey, I suddenly realized that, you know, I could do a lot more with the technologies that I had developed for enzymes. And one such opportunity was in the area of biopharmaceuticals. I looked at what was happening in India. India was at the epicentre of diabetes. India had alarmingly growing cases of cancer, and many of the new cancer drugs were biologics. And, you know, the most important medication for diabetes was insulin and India was importing every one of these drugs and at very high prices. And I found that most people couldn't access these medicines because of the price point, which was, you know, way beyond their reach. And therefore I felt that I had, I had an opportunity to make a difference, and I felt that if I had technology platforms that I could leverage for biopharmaceuticals, then maybe my sort of raison d'être should be how to reduce the prices of these kinds of products, which were so expensive and, unaffordable. And that's what I did. I leveraged all the very exciting technologies that I had developed for enzymes and then, you know, applied them to bio-pharmaceuticals and, you know, we are today, the only insulin producer in the world that uses what we call as a Pichia yeast platform compared to the other insulin manufacturers. And there are just two of them. Maybe I should add a third because the third one, which is Sanofi has actually gone out of diabetes. When I come to, when it comes to cancer drugs, I think, you know, we were the first ones to say, let's develop antibodies because these are going to be very important going forward. And we started with two very novel antibodies and then added bio-similar antibodies because that's what we needed to provide access. And I think that has really sort of worked well for us, if I may say so.

**Host:** Now Biocon is a transnational corporation, leveraging R &D and innovation to supply lifesaving solutions globally. A corporation that most certainly inspires a whole new generation of scientists and engineers to do more, to sustain the environment, sustained lives and save them as well. But how important is it that there are more women in science, in India being part of that narrative?

**Dr Kiran Mazumdar Shaw:** You know, Shivraj when I started by Biocon in 1978, one of my driving missions was to provide job opportunities for women scientists. I wanted to create a company that was going to be a go-to company for women, who wanted to pursue these scientific careers. And I can tell you that whilst I've been successful in certain departments, like say R&D and quality and a few of these more scientific aspects of our business. I think I found it very difficult to attract women in other parts of our business, largely because there are certain challenges such as say, in manufacturing, the scheduling of shifts always makes it, , a big, Challenge for women to take up manufacturing jobs or for that matter I think, , you know, in marketing, I find that women don't generally gravitate towards those kinds of jobs. And of course, in other parts of the business, I'm trying to now, you know, insist that they employ more women because I really don't think any job is beyond a woman, not even manufacturing or marketing. But it will take some time., I'm very aware of the fact that Indian society is very protective of its women and they don't like them to do any and every job, but I think time will come when women themselves will feel very confident to take on any job. .

**Host:** And recently you were appointed the first Indian woman to join the board of trustees of the Memorial Sloan Kettering Cancer centre and named in the Forbes list of a hundred, most powerful women in the world paving the way for others. Do you see these as vindication of your own personal philosophy of always digging in and being unconventional and daring?

**Dr Kiran Mazumdar Shaw:** You know, I don't look at this as vindication, but I look at this as an opportunity for every woman who wants to pursue an unconventional path or a differentiated path or basically to, to, to make something out of her life. So, I just feel that women have that potential. Women have what it takes to be successful. And when you succeed, obviously you get recognized and obviously women at this point in time get recognized far more than a man in the, in their category because you know, we are unconventional, we do stand out. So that is why I encourage women to take advantage of this time. When women actually are beginning to get noticed. And the moment you get noticed, obviously you get these opportunities of playing very important roles in every sphere that you're interested in.

**Host:** Now you sit on many boards - corporations, institutions, non-profits, global research, and academic centres. From that vantage point what do you believe needs to be done to allow more women in science and engineering and healthcare to crash through that glass ceiling?

**Dr Kiran Mazumdar Shaw:** Well, I think the biggest problem is the mindset. I think you must understand that policy makers are dominated by men. People who recruit are men. People who take decisions of promotions within organizations are also. So, all the skew towards men has to really change. So, although we are looking at boardroom changes, like saying that you must hire, or you must induct at least one woman board member, that's not enough. I think the challenge has to be, how do you get a gender equity in your board, in your workplace? In your leadership. I think that's when you will really start moving the needle. Just by having a few women represented in each part of your business, doesn't make the difference. So I really think we need to basically create all HR policies that incentivize people for diversity and inclusion and especially gender inclusion. Because I think that's what is required to really move the needle. So, I think policies that incentivize people for doing the right thing about gender equity and gender inclusion will be a step in the right direction. I think it should not be about ticking a box. It should be about taking such decisions because they are for the greater good of the business and that they actually show and demonstrate that it is actually driven the business the way, gender equity does. And I think, you know, you keep hearing about all these various statements that, um, if you bridge the gender gap, you can actually realize trillions of dollars of GDP to the global economy. But you know, not enough is being done. I mean, look at during this pandemic, when jobs were laid off, more women were laid off. Even though women are not there in huge numbers, but when it came to laying off jobs, the first people to lose their jobs were women. And then even if you look at the vaccination statistics, it's quite sad that the ratio is skewed in favour of men. So for every 1000 men vaccinated about 870 women are being vaccinated. So even there, there is inequity. So, I think we have to understand that society has to change its perspective. And I think until the woman is acknowledged and recognized as a strong economic growth driver and a growth provider and an economic, an integral member of the economic mainstream, I think , you won't see change the way you should.

**Host:** Absolutely so systemic change, but now you've all was also been very outspoken. You've gone above and beyond just your corporation and mission you've been involved in many citizen or common causes. How important is it for today's women to really find their voice?

**Dr Kiran Mazumdar Shaw:** I think it's extremely important because finding that voice is, is so crucial to what we trying to do to change the world. And if women don't find that voice, then I'm afraid we just can't change the world. I think what is very important is that today in today's world, actually many women are finding their voice. And I think that's a very good sign. So, whether it is, , you know, in the realm of human rights, whether it is in the realm of sustainability, whether it is of course, about gender equity. I think women are beginning to speak up, , including in India. And I think the moment women find their voices, believe me, things do change because the world today does need empathetic leadership and women certainly demonstrate very high levels of empathetic leadership.

**Host:** And what about the often repeated question, successful women like you always get asked. How do you manage your personal and family life while being this trailblazer? How do you respond to that?

**Dr Kiran Mazumdar Shaw:** I think like all women, I think all of us know how to prioritize our lives. I think when we know when family comes first and when business comes first, I think that's the way you have to balance your life. And I think that's the way every person needs to balance their life. . Because it is, life is about prioritization. You cannot do one at the cost of another. That doesn't happen. I think you just have to do what is important and what do you prioritize at which point in your life or, or what the occasion demands.

**Host:** Now, if I were ask you with the benefit of hindsight and all your personal life experiences and successes, if you had the opportunity to speak to that little girl who seemed disappointed, she didn't become a doctor. What are the two or three things you would say to her?

**Dr Kiran Mazumdar Shaw:** First and foremost, I've realized that, failing is very temporary because I think, , you can pick yourself up and do something else like I did. So I always tell people it's giving up that's final, but failure is temporary. So I think you shouldn't get too deterred by failure because I also believe that making mistakes and failing actually help you to learn. And to finally, it is a stepping stone to success because if you've never had failures, I think learning will be very difficult. And if you don't learn, then the kind of success you might get may not be sustainable.

**Host:** And finally, your one message for the many women who are listening to this conversation.

**Dr Kiran Mazumdar Shaw:** Well, my message to women is, has always been about believing in yourselves, believing in your inner strength and believing that you can do it. And basically finding that confidence to basically prove to yourself and to the world. That you can do it. I think that is really my, my message to women that, you know, I always tell people if I could do it, you can do because you know, I was not some extraordinary woman. I was just a plain simple middle-class young girl. And, , you know, I, of course was very committed. I was very serious in

terms of my pursuit and above all I think I have a lot of self-confidence. That is what actually allowed me to succeed.

**Host:** And role models are important, right? Dr Kiran Mazumdar Shaw? .

**Dr. Kiran Mazumdar Shaw:** Yeah, I do believe role models are important. But you know, I often worry that very often when you have role models. You have to basically be inspired by them. You don't necessarily need to model yourself against those role models and have to be role models who inspire you. And that's what sort of allows you to shape your own leadership style or your own journey through life.

**Host:** Dr. Kiran , thank you so much for taking out the the time and speaking to the Word to the WISE podcast.

**Dr Kiran Mazumdar Shaw:** My pleasure. Thank you so much.