

## Biotec's Dr Kirtikara: 70% of our staff is female

04 March 2013 | Influencers | By BioSpectrum Bureau



I graduated from Chulalongkorn University with a BS in Genetics, enrolled at the University of Connecticut, US, to continue studies in plant genetics, my area of interest. I obtained an MS in Genetics in 1987 and completed PhD, also in Genetics, in 1993. My PhD research focused on the alteration in protein accumulation and gene expression of the ascorbate-gluthione pathway in tomato.

### Read inspirational stories of women leaders in life sciences:

- [Ms Deepanwita Chattopadhyay, CEO and MD, IKP Knowledge Park, India](#)
- [Dr Anu T Singh, director, R&D, Dabur Research Foundation, India](#)
- [Dr Jennifer Holmgren, CEO, LanzaTech, New Zealand](#)
- [Video message from women leaders in bioscience](#)

I then began a postdoctoral research fellowship at Rutgers University in the Department of Plant Sciences, investigating the effect of oxidative stress. I received a second post-doctoral fellowship in 1995 at the Department of Medicine, University of Tennessee, by focusing on complex regulations of genes involved in prostaglandin biosynthesis.

I returned to Thailand to work as a researcher at Biotec in 1998. It was my first job and I helped set up the bioassay lab at the center for screening various bioactive compounds from natural products. At that time, there were only two choices in Thailand. If you liked teaching, you joined the university. If you wanted to focus on research, you joined institutes. Biotec, in that way, has been a very good place.

I became the director of Biotec central research unit in 2005 and deputy director of the center, in charge of capacity building,

in late 2007. As the executive director now, I manage two things: research directions for Biotec and scientists. I have to work at the national level to understand what kind of research is needed in the country. Since we do not have that much manpower, we have to focus on certain areas and utilize resources judiciously. I also engage with scientists to understand what they are doing. It can be tough as we are different from universities, so our output is not a publication. People expect that research should be tangible and public should benefit. So, I have to keep the scientists motivated and that is a challenge.

I came to this position at a time when Biotec switched gears from being a funding and implementing agency to a research institution. This means that we are now continuously looking for funding for our research while trying to keep our focus on what is important for the country. Thailand, at the moment, is in changing and the industry is gaining interest in biotechnology. The difficult task that I have been doing is to prepare people for the industry while also pursuing scientific excellence.

For me, the turning point in my life has been the shift from being a scientist to being an administrator. It requires different skills and is certainly a major transition. I now have the opportunity to understand the needs of the country and have a broader view. I do not get to go back to do research due to lack of time, but I certainly attend lab meetings to give suggestions, and hold regular meetings with scientists. That is the only way I can keep myself updated with the latest in the field.

One of the major challenges that I have to deal with is that the budget has not been increasing for the National Science and Technology Development Agency. The government's spending on R&D is at the moment 0.25 percent of the GDP and the government is aiming to increase it to one percent. We have a lot of new people with a lot of capabilities. These young bloods, who are returning to Thailand, have to be kept stimulated and focused on science. This is one of the challenges that I face, to be a buffer between the problems at the top and the young talent.

Biotec is a very unique place. We have a higher ratio of women to men in both the research laboratory and the administrative section. Overall, approximately 70 percent of our employees are female. This year is the 30th year of the establishment of Biotec. We have had five directors till today and three of them were women. Women have also held key positions at Biotec, such as the positions of research unit director, lab head and administrative section director. Therefore, in our work environment we have many role models that young women can look up to and can see that there is no limit to their growth.

I have been lucky to have good mentors by my side. Dr Malee Suwana-adth, Associate Professor Sakarindr Bhumiratana and Professor Morakot Tanticharoen, all former directors of Biotec, are strong supporters of my work. They showed me how to keep a balance between the management and scientists. Because they started out as researchers themselves, they know what the challenges are and how to balance between good science and its application.

With three more years remaining in my present tenure, I hope to return to the lab after this. I am not worried about Biotec. We have had good leaders and the way we are moving forward is quite balanced. The next generation will do even better. Thailand is fortunate - although the society is changing quickly - that extended family members still play a very important role in supporting a family unit. Parents, siblings and relatives can provide a support system for a working woman. They can step in and provide good support, so that we can maintain a balance between professional and personal lives.

**(As told to Vipul Murarka)**