

## "India has an edge over China in R&D and quality control areas"

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Prof. Kazuo N Watanabe, chairperson, Japan Chapter of Federation of Asian Biotech Associations (FABA)

Prof. Kazuo N Watanabe of the Gene Research Center & Graduate School for Life and Environmental Sciences, University of Tsukuba, Japan, has bagged many awards including the Forrest Frosty Hill International Agricultural Research Award and Young Scientist Promotion Award from Japan Society of Breeding. He has published as many as 100 journal papers/articles, 31 books/book chapters and has six patents to his credit. Prof. Watanabe was in India to participate in BioAsia 2006 held in Hyderabad in February. He spoke to BioSpectrum about the biotechnology industry in Japan. Excerpts of the interview.

Considering the fact that the Japanese market is mature, how you see the opportunities in different sectors of biotechnology in Japan?

The biotech companies have good intellectual capital and knowledge and know-how to invest. They also know the specific direction. Still there are differences among successful companies. And some of the companies are losing out the market. In a way you are right that the biotech industry in Japan is mature. But there are new biotech companies coming up as spin-offs from universities. There would be more developments in the coming five years. This is mainly because the government used to support the companies with a lot of money. But the government support goes out or disappears in no time. Then the industry takes over from the seed funding with more investments. The industry makes sure that there will be 30 percent return on their investment.

#### What is the biotech investment scenario in Japan?

There is a good flow of investments happening in the biotech industry and this includes investments from government agencies. The government support is more restricted to R&D. The companies are also raising money after the initial support / seed funding from government agencies. There are many venture capitalists funding biotechnology companies. But most of the money comes from banks in the form of seed funding.

#### What is the IPR scenario?

The government is very supportive in intellectual property. It has been laying more emphasis on increasing the number of patent attorneys specialized in the areas of life sciences and biotechnology. Major universities in Japan have liaison offices for technology transfers. Even the education ministry has been providing funds for intellectual property issues so as to support the university professors to file patents through foundations set up at the universities. The situation in Japan is same as that of any other Asian country as far as IPR issues are concerned.

#### How many companies are operating in biotech in Japan?

There are about 400 companies related to biotechnology. But the core biotech companies are about 100 that are doing very well in the stock market. The big pharmaceutical companies own these companies which have a diversified product range. Besides the leading companies, there are about 10-15 spin-off companies from the universities. They too are doing very well and some of them are keen on going public. To keep the company stable, these companies have opted for the services model. They are utilizing a part of their resources for the product development as along-term goal.

#### In your opinion, between India and China, which is a better option for Japan to look for tie-ups in biotechnology?

India is more pragmatic. The human capital in India is of high quality and strong in R&D. In quality control and R&D areas, India definitely has an edge over China which is strong in generic and bulk manufacturing.

#### How is the corporate and academic interaction shaping up in Japan?

Universities need to survive and need funding from the corporates in addition to government agencies. They also need to produce good and quality human resources for the companies. Besides doing basic research, they also do take up projects for companies. At the same time companies do fund organizations. It's a win-win situation for both academia and company.

#### What kind of models have the companies adopted for partnerships with research institutes?

Each company has adopted a different model based on its own requirements and needs. There is no specific model available. Some companies will fund the research organizations based on projects or create professorships/chairs on specific research areas of their choice/ interest at universities, while small companies would look at specific product development agreement with the research organizations. But still it's a long way to go in product development from the research organizations.

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