Interview with Young Hoon Park , President, Korea Research Institute of Bioscience and Biotechnology (KRIBB)

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Though you have recently been appointed as President of KRIBB, your history with the institute goes quite far back. Could you please briefly explain the role it plays within South Korea’s bioscience and biotech fields?

The KRIBB is the only government-supported research institute in South Korea dedicated to the field of biotechnology. It was founded in 1985 and began focused on certain key areas like genetic engineering. Originally based in the Seoul area, the KRIBB moved to its current location in Daejeon in 1990 and has played a leading role in developing biotechnology as well as building public infrastructure for biotechnology research in South Korea. The country’s biotech sector is now in a very good position in terms of productivity and level of technology.

How would you rate KRIBB’s success over the years in carrying out cutting-edge research in the different areas of biotechnology?

The Korean government is currently investing a great deal of money in the biotech sector, through different channels such as the “Frontier Program”. Indeed, of the 22 programs selected to receive an annual support of approximately 10 million dollars over 10 years, three are originated in the KRIBB. The programs cover the areas of functional genomics of microorganism and human being,

and plant diversity. All three programs have had their own individual research groups to develop, and overall the results have been very positive from basic scientific knowledge accumulation to industrial applications. One of the key aspects is that the program allows the directors to have a high degree of freedom in managing the budget and selecting projects.

What is your view on the current importance of biopharmaceuticals and how active is KRIBB in this regard?

Today there is a clear trend which sees the pharmaceutical industry going more and more towards biotechnology. Though currently biotech makes up less than 10% of the pharmaceutical sector's products, it is expected that this will rise to over 50% in the future. Based on genomics and proteomics technology in particular, South Korea becomes now very competitive in developing biotherapeutics such as stem cell therapies and antibodies as well as biomarker discovery for cancers diagnostics and treatment. I believe that through these technologies we will be able to greatly contribute to the pharmaceutical industry in the near future. We are already establishing partnerships in these areas with global players as well as local companies, through which they provide their products and the KRIBB brings its technology.

What is the scope and importance of the KRIBB's collaborations with multinational pharmaceutical companies such as Pfizer?

Indeed, the KRIBB is collaborating with big pharma companies like Pfizer, though not yet on a very large scale. In the case of Pfizer, they were looking for new targets in the Asian market and became interested in the genomic approach towards cancer treatment that KRIBB has been building. They chose us as the institute with which they wanted to work in the Asian region in this area, and started supporting a few of our projects. People from Pfizer have since visited the KRIBB and the range of collaboration between us is getting broader. The KRIBB is open to further developing partnerships with foreign investors and companies interested in our knowledge and technology. Many research institutes in the region and around the world are striving to attract such investments.

What do you believe are the KRIBB's main competitive advantages?

The KRIBB's strongest point is its expertise in basic biological scientific knowledge from cell biology to microbiology which is applicable to biopharmaceutical and microbial industry. However, I consider that another advantage that we have is the diversity of areas and the ability to quickly bring together different bio-sectors and build a team for emerging fields and technologies.Your career has been split between the private and public sectors.

What do you consider the main difference of working in one or the other?

The culture is completely different in the two settings. In the private sector, people want results but tend to be unaware of the amount of effort and resources that this requires. There is a general lack of understanding of how research works and of the fact that things cannot be rushed. In government institutes, on the other hand, there are sometimes too many rules and regulations that can slow down processes. In the case of KRIBB, we are working to improve such conditions and overall we have attained good levels of productivity. you think that it will ultimately be up to the public or the private sector in Korea to boost the biotech sector to the next level?

Industry and government have very different but crucial roles to play in making the biotech sector a success for South Korea, but the main thing is that there should be better collaboration between the two. There are some good examples of this already happening, such as the case of the KRIBB with Daewoong, but much more needs to be done with the big pharmaceutical players in the country. One of the problems is that Korean companies are still not very well prepared to commercialize the products developed through basic research here. They also lack the scale which would allow them to invest heavily in R&D and particularly in the biotech field, though this is starting to change.

How long will it take for South Korea to replicate in biotech the success it has achieved in other industries?

The Korean government only started investing in biotech about 30 years ago, and everyone knows that this is a long-term industry. It is true that there is not a lot to show for these investments today, but I believe that in 20 years the biotech sector will be a growth engine for South Korea’s economy and we will be the world leader such as in IT. But the experience cannot be applied directly from IT to BT as they require very different approaches. One of the most promising signs, in my view, is that today most of the best qualified students in the country are going to medical school, much as they did 30 years ago to the electronic areas.

What are your main objectives for the KRIBB in the near future?

We will have to build stronger ties to the medical community, because bio-medicine will be one of the priorities and top business sector for the country in the coming years. The KRIBB will develop new technologies for example in stem cells and antibodies, with a special focus on treatments for cancer. I will emphasize not only on the basic scientific progresses but also on the commercial and industrial applications of technologies. For developing biotherapeutics, we will need more tight collaboration with hospitals (medicinal community), while bioindustrial companies will be another

partners for biochemicals.

What is your final message to the readers of Pharmaceutical Executive?

Invest more in biotech, but be very patient, and eventually you will see the fruits of all the efforts as we have been experienced with IT success.

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