

# First POSTECH Enterprise, NSB-POSTECH

NSB-POSTECH (NanoSurface Biosciences-POSTECH), the first POSTECH Enterprise Company was established on June 2nd. IAO spoke to the CEO, Professor Joon Won Park, about NSB-POSTECH and its future.

*IAO: Would you briefly introduce NSB-POSTECH?* Prof. Park: In the year 2000, POSTECH with financial support from POSCO launched an ambitious initiative for bioscience and bioengineering. As a result, we have developed a proprietary technology which has attracted much interest from the international community. Team of scientists led by myself (Prof. Joon Won Park, Dept. of Chemistry) have developed a technology to coat various surfaces with a cone-shaped nanosized molecule, which allows unprecedented reliability and efficacy for biochips and picoforce Bio-AFM.

Much support was given by our colleagues at the Dept. of Life Science throughout the research process. With this technology as the starting point, NSB-POSTECH will first enter the US market and from there expand into the global market.

*IAO: NSB-POSTECH is the first POSTECH enterprise company. Would you tell us its significance?* Prof. Park: Intellectual property rights are the most critical components in a technology-focused company. POSCO had already filed the intellectual property rights, and after reviewing the activities in US for the past two years, POSTECH decided it was a worthy investment and provided us with the seed money to start the enterprise company.

I believe universities will have a bright future when they make profit through the proactive investment on business development based on their own intellectual property.

With the establishment of the global company NSB-POSTECH right here on POSTECH campus, students will be allowed to get first hand experience in researching areas of bioindustry and world competitive biotechnology.



*IAO: What area of research is NSB-POSTECH involved in?* Prof. Park: NSB-POSTECH have already secured a platform technology for modifying solid surface with nanoscale precision, and the technology has found various applications for diagnosis and biomolecular analysis. We are planning to file about 50 US patents over the next three to four years and thus expand and protect our platform technology and enhance company value.

*IAO: Could you tell us a little about the bio and nano industry?* Prof. Park: A new development from biotechnology and nanotechnology is not only interesting academically, but also possesses a large commercial viability. It is well regarded that in 15 years, biotechnology will have numerous

opportunities and products within nanotechnology. For example, National Institutes of Health, a part of the U.S. Department of Health and Human Services, is engaging in efforts to harness the power of nanotechnology to radically change the way of diagnosing, treating, and preventing cancer. Exquisitely sensitive devices made of nanoscale components-such as nanocantilevers, nanowires, and nanochannels - offer ways for detecting tumors at the earliest stage and delivering site-specifically the cancer drugs.

*IAO: What are some real-life applications from technology developed by NSB-POSTECH?* Prof. Park: After the completion of the current pilot production, we will be able to manufacture hundreds of thousands of the coated glass slides, substrates for the biochips. We will start with the research market in the beginning, and we expect to get approval of the US FDA (Food and Drug Administration) within a couple of years. This will allow us to go into human diagnosis market. Also, our mid-term business plan includes developing new tools for analyzing single biomolecule and nanobioimaging.

*IAO: Could you tell us about the future of NSB-POSTECH?* Prof. Park: Currently, there are 8 members at NSB-POSTECH and US consultants who were hired for the company. Soon we will be conducting fund raising to leap into the global market and expand our patent rights.

Unlike most of bioventures, we will also be producing and selling the products from the beginning stage in addition to an effort for securing the technology. We are looking forward to establishing a world class diagnosis company next to the POSTECH campus in five years and anxious to contribute POSTECH and Korea's bioindustry.



▲ Inauguration ceremony of NSB-POSTECH