

MERIT Internship Report

Department of chemistry and biotechnology

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Host Company : Nanotis Corporation

Abstract :

I participated in the intern of Nanotis Corporation, start-up company founded in June 2016 from the University of Tokyo.

The aim of Nanotis Corporation is to create the novel diagnosis device for influenza that anyone can use without difficulty by combining the device, micro-technology, and biomolecule-recognition technology.

In this internship, I participated in the product management and R&D (Research & Development), and experienced quick R&D and business operation of start-up company concerned with technology.

Activities :

In early term of the intern, I engaged in R&D of the diagnosis device with micro-technology such as fulfillment of PoC (Proof of Concept). Then I also engaged in medium-and long-term planning of product development. For the management of R&D in company, it is important to imagine the flow of development; such as design of diagnosis device, mass production, performance test, and distribution. I was acutely conscious of where we were, what was needed for the next step, when we had to reach the next step, and engaged in R&D.

Summary :

In this internship program, since I participated from start-up stage, I experienced a wide range of work concerned with not only R&D but also business operation such as product management, finance, and strategy.

There are some differences between R&D of company and research of the university. One of the differences is that it is important for R&D of company to go any further rather than to accumulate evidence precisely. Also, I felt the sense of balance on finance was very important. There is no doubt that R&D is the most important for tech venture, but I cannot put in budget to only it. It was vital for companies to promote R&D with the sense of balance in finance.

On the management side, I was able to learn the basics of thinking and strategy for growing my own company, such as risk management, team building, size and timing of the fundraising round.

There was also difficulty unique to a start-up that creates devices related to medical. In particular I felt the importance of prototyping and operation confirmation using actual samples, performance and quality checks, and approval procedures. Since these are the points that must be cleared and a certain period is needed for it at the same time, research and planning should be done from a preliminary stage before entering the process in development in a start-up company.

In addition, participation in this intern was an important turning point for me to deepen consideration on the relationship between research and earning money. Though skepticism for researchers to earn money is strong in Japan, it is really important for the development of human society to create products and industry by utilizing excellent researches. Also, for Japanese researchers with economic burden, their income may work as a great incentive. If Japan is going to be a technologically advanced nation in the future, transformation from researches to industries should be promoted intensely.

Acknowledgment :

In implementing this internship, I would like to express my sincere gratitude to Mr. Sakashita, CEO of Nanotis Corporation for sparing me a lot of time. Also I would like to appreciate to supervisor Professor Nagamune and Associate Professor Kawahara, who are advisors for acknowledge participation in this internship and a fruitful discussion place in collaborative research. Finally, I would like to express my heartfelt gratitude to the MERIT program stakeholders for giving me valuable opportunities for long-term corporate internship programs that will have a major impact on future career choices.