

## 【LGS Report : Japan-based Training 2018 (Boehringer Ingelheim –Tokyo)】

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**【Summary】** “From Idea to Start-Up” is a training program held by Boehringer-Ingelheim (BI) Academy. The purpose of the program is to fill the gap between knowledge and experience of scientists who want to start bio-enterprises to improve the lives of patients. Dr. Paul Nicklin, Director Research Beyond Border of BI, stated that the breakthrough discovery is often born from an innovation against so-called un-druggable targets. Then, Dr. Adrian Carter, the Global Head of Discovery Research Coordinator of BI, highlighted the importance of open innovation to foster drug discovery. From the perspective of the pharmaceutical company, he explained that partnerships with startup often become the source to spark innovation in the healthcare industry. Large pharmaceutical companies therefore became willing to have collaborations with startups. After that, Dr. Takato Noumi from Foresight & Linx Co. concretely explained the required steps to establish a startup. He pointed out the importance of the right market positioning of the startup idea. In the last session, we had a lunch and networking session with people who have already started their startups. We discussed with Dr. Yusaku Katada, an ophthalmologist and founder of RestoreVision Inc. From him, we learned that an innovative idea should be implemented into a realistic solution. Thus, it will be valuable for people in need, as a quote by Thomas A. Edison: “The value of an idea lies in the using of it.”



Figure 1. LGS students during networking session of “From Idea to Startup”

**【Important content】** A lot of people have brilliant ideas, but only a few take actions. Dr. Takato Noumi, President and CEO of Foresight & Linx Co., explained in details essential steps required to create a startup from an idea. The most important step is validating if the idea is good for business, and if it also fits for a startup. The idea, which can be a solution for a real problem, is good for business. The next step is to determine the position of the idea in the market so that we can validate if the idea is good for a startup or not. Positioning is crucial for a startup. With Pharma Needs on an X-axis and Medical Needs on a Y-axis, there are five areas in the market (Figure 2). The most favorable area for a startup is Area 3, which has a high demand on Medical Needs and a moderate demand on Pharma Needs. The other potential area for a startup is Area 4, which has a high demand on Medical Needs and a low demand on Pharma Needs. Area 1 is the area with a high interest but very competitive. Startups should not play in this area unless finding a niche. The niche exists either due to lack of knowledge, lack of insight, or lack of technology. If our idea can be a solution for this niche such as having a novel target, an innovative clinical approach, or a technology breakthrough, we could play in this attractive area. Then, we should concrete the validated idea by a small solid team, a business plan that focuses on the lead project, and an attractive meticulous capital strategy.

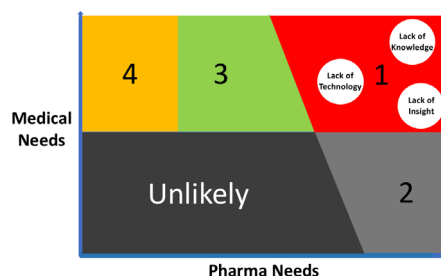


Figure 2. Positioning a Start-Up in the Market (Summarized from a lecture by Dr. Takato Noumi)

**【Development of your research activities】** Both scientists and bio-entrepreneurs have the same ultimate goal: create a better life for society. This BI training gave me an insight that scientists can bring their discovery to the next level by starting their bio-enterprises. Bio-entrepreneurship will deliver the value of discovery in science to patients in need. In my doctoral project, I am investigating the mechanism of podocyte injury. Podocyte injury is the key factor of the glomerulopathy that leads to renal failure. Currently, there is no established diagnostic biomarkers, nor specific treatments for podocyte injury. According to Dr. Takato Noumi’s explanation about the positioning of a startup idea, diagnostic biomarkers and treatment of podocyte injury are niches in Area 1, which has a high demand for Medical Needs and Pharma Needs (Figure 2). Therefore, the idea, which I am developing to solve this problem, has a potential to establish a startup in the near future.