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Report for “2021 Biomedical innovation and entrepreneurship training course for SPARK Asia and Oceania”

This year, the SPARK program was held as an online course due to the COVID-19 pandemic. It was held for two weeks, from February 22nd to March 6th. The main goal of this program was to develop creative, innovative, and entrepreneurial skills to design and translate basic research as biotechnology products (e.g., drugs and medical devices) into a marketplace.

The participants of the program came along from Australia, Japan, and Taiwan with various nationalities, which makes the program was a very international atmosphere. Those participants were coming from different backgrounds of specialties. They were not only Ph.D. students but also postdocs, university employees, medical doctors, etc.

In the first week of the program, we had lectures and brainstorming classes from many professionals and industry experts. Those classes include a description of how to protect our research ideas and new biotechnological products (intellectual properties), the process and requirements for entering clinical trials of the potential product, and all the regulatory requirements needed to be done to put the product on the marketplace. Additionally, each person was assigned into a group composed of 3 to 4 people from different participating countries. During the first week of the program, we had several class exercises to develop a brainstorming solution or product of a medical problem through a creative and design thinking approach and describe the work plan and milestones needed for the proof of concept (PoC) and a description of how to protect the IP and a brief patent outline of the product.

In the second week of the program, we mostly learned about the business part of the establishment of a new start-up biotechnology company. The founder and director of SPARK Global, Prof. Daria Mochly-Rosen, shared her experiences of how she founded her start-up company, Kai Pharmaceuticals, and the SPARK organization. Later on, she also gave remarkable advice and motivation to us to always challenge ourselves as a scientist to solve health problems in the world. Moreover, the regional director of SPARK Europe, Prof. Craig Garner, also shared his journey from academia to pharma company. In addition to those lectures, we also had an opportunity to learn about finance, funding, and business planning from many experts and venture capitalists, which in my case, I have very rare opportunities to learn those things rather than biomedical classes.

For the group project, each group had an opportunity to be mentored by several field professionals based on their project topic, and on the final day, each group had to present the final pitch for 20 minutes in front of mentors, judges, and all participants. In that final pitch, we presented our solution that we offer to solve the unmet clinical need problems.

I am more than grateful for this opportunity that was given to me by the T-CReDO organization. In this program, I learned many new ideas and much more things to fulfill my knowledge about how to translate basic research into a pharmaceutical business. I also had an amazing opportunity to work with multi- and cross-disciplinary participants and professionals. With the experience that I got from here, I would like to share it with other people (professors, seniors, colleagues, etc.), and then advance our mutual interests to promote not only our basic research but also its implications for future therapeutic approaches.