

## 【LGS Report: Overseas Training 2018 (La Jolla, San Diego, USA)】

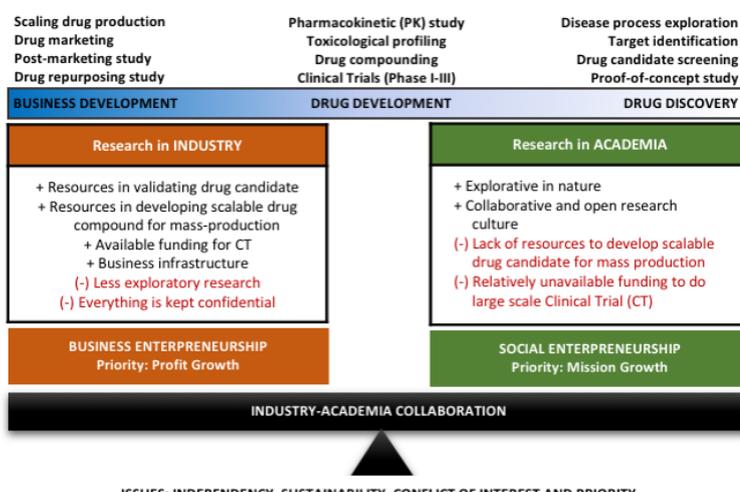
Date	August 28 – September 2, 2018
Name	Maulana Antiyan Empitu

**【Summary】** This training is an overview of life in pharmaceutical and biotech industry. The training has gathered a diverse opinion about career and research development from the perspectives of scientists in the industry as well as academia. Dr. Andrew McKnight – the president of the Kyowa Kirin Research Inc., shared about how the research in the pharmaceutical industry is constructed based on a different philosophy and approach compared to the research in the academic institution. In the other day, Mr. Gene Lay - the co-founder of BioLegend Inc., elaborated about the power of entrepreneurship in shaping the future of medicine and his struggle in developing the business. We also learned from the employees who shared genuine perspectives about rediscovering their career from academia to industrial scientists. As a counter-balance opinion, Dr. Pascal Gagneux - a professor at the University of California, San Diego presented the future of glycan biology and the appealing aspect of being an academic researcher. In overall, this training is very content-rich and covering both industrialist and academic perspectives. More importantly, this chance has encouraged us to contemplate about: 1) which career path suits the most to our strength and weakness; 2) how we should prepare to answer the challenges of future medicine through scientific research and science-driven entrepreneurship.



Sharing session with scientists at BioLegend, Inc.

**【Important content】** Collaborative research between the pharmaceutical industry and academia may become one of the alternative solutions to accelerate the drug development process. While research in academia is more explorative and suitable for drug discovery phase, the pharmaceutical industries have more resources to advance the drug development into clinical trial and finally bringing the drug to the market. While industry-academia collaboration may complement the strength and weakness of each side in terms of translational research continuum, both of them have a very different basis of entrepreneurial philosophy. Therefore, it is



A proposed model of industry-academia collaboration

fundamental to construct a suitable collaboration model. Ideally, the model will accommodate the priority of both industrial business (profit growth) and academic-social entrepreneurship (mission growth), without sacrificing the sustainability of the collaboration and the independence of the scientists.

**【Development of your research activities】** Chronic kidney disease is currently incurable. Its pathological process is originated in the injury and loss of the non-renewable podocytes. My doctoral research aims to understand how the podocytes' scaffold proteins organize the key signaling molecules in a spatial and temporal manner. In a short-term perspective, this training introduced me about some new experimental platform that may benefit my research. We briefly exchanged our opinion with scientists who developed reagents for a variety of purposes in BioLegend Inc. In the long run, this training has made me to think about: 1) the direction of my research; 2) whether addressing my research question is really matter in transforming the field of chronic kidney disease.