

Chapter 1

Introduction

1.1 Host Institution Description

Taipei Medical University (TMU) is an academic university institution in Taiwan, specifically in Taipei, which has been established since 1960. Through these years, TMU was growing through innovation without any foundations' funding or government's official budget regularly. TMU is a home of eleven colleges (College of Medical Science and Technology, College of Management, College of Oral Medicine, College of Pharmacy, College of Medicine, College of Nursing, College of Humanities and Social Sciences, College of Public Health, College of Nutrition, College of Interdisciplinary Studies, and College of Biomedical Engineering), one general education center, and seven affiliated hospitals, including TMU hospital, Shuang Ho Hospital, Taipei Cancer Center, Wan Fang Medical Center, TMU NingBo Medical Center, Taipei Neuroscience Institute, and Hsin Kuo Min Hospital. It is one of the medical universities and private universities that ranked 231st in the Times Higher Education (THE) World University Rankings, 2nd among Taiwan's universities, and 29th in the THE Asia University Rankings in 2022 (*Taipei Medical University*, n.d.).

TMU focuses on the innovation and medical advancements to solve the problem in education and research. The vision of TMU is "to achieve the state of an international renowned University Hospital with excellent performance and quality", and the mission is "to safeguarding the health of the community" and "to accomplish the mission of education, research, and service". It focusing on 10 fields, including Pharmacology and Toxicology, Clinical Medicine, Biology and Biochemistry, Neuroscience and Behavior, General Social Sciences, Agricultural Sciences, Immunology, Molecular Biology and Genetics, Psychology, and Chemistry and Psychiatry. The six key strategies of TMU include cultivating the interdisciplinary biomedical talent, developing research areas that lead the world, extending influence in the international world, building ecosystems that are innovative and entrepreneurial, and strengthening the medical-industry chain (*Taipei Medical University*, n.d.).

1.2 Department Description

The project is included into the TMU TEEP internship program of the International Ph.D. and Master program for Translational Medicine from the College of Medical Science and Technology. It is a Ph.D. program that focuses on the basic research to produce medical procedures, new therapies, or diagnostics scientifically, where it should be implemented from the research (benchside) into the clinical applications (bedside treatments). Some of the core competencies of this program is to advance the knowledge and training in the field of biological science from the basic to clinical research, to enhance the skill of translating fundamental research into practical applications, to analyze the emerging trends in the biomedical industry and medical requirements in the global, and to gain knowledge of legal aspects related to the biomedical industry and develop managerial skills. There are many experts from biochemistry, structural chemistry, biology, antibody drugs, animal models, drug screening, and clinical trials (*Taipei Medical University*, n.d.). One of them is Professor Ming-Heng Wu, who is the director of this department. This project is supervised by Professor Hao-Ching Wang, who is also helped by his lab teams, including Xin Zhen, Tracy, Charles, and Ivy. The work cycle is five days a week, Monday to Friday, with a flexible schedule, depending on the procedure.