

Biomarker Discovery for Foodborn Bacteria Pathogen

I. Title of Research: Biomarker Discovery for Foodborn Bacteria Pathogen

II. Research Team Members

Department	Name	Position
International Degree Program in Animal Vaccine Technology	Hsing Chieh Wu	Associate Professor
	Chun Yen Chu	Professor
	Thu-Dung Doan	Assistant Professor
Institute of Veterinary Medicine, Mongolia	Battsetseg Badgar	Professor & Director
	Uudamsaikhan	Researcher and Head of Laboratory of
	Gundegmaa	Food Safety and Hygiene
Siang Zan Technology Co., Ltd	Su Hua Tsai	CEO

III. Description of Industrial Needs and Research Result Applications

Food safety testing is a critical component of the food industry, playing a vital role in ensuring public health. According to market analysis, the global demand for food safety testing has reached billions of dollars and continues to grow, reflecting an increasing awareness of food quality and safety. Furthermore, food testing is essential for mitigating the risks associated with foodborne diseases and other related hazards. Therefore, the development of rapid diagnostic assays for foodborne pathogens is not only necessary but also holds substantial market potential.

IV. Performance of Research Team

This project involves one master's student and two doctoral students, who actively participate in and contribute to the research process. Through their involvement, the project aims to enhance their ability to think independently and conduct scientific investigations, ultimately cultivating skilled professionals to meet the research and development needs of the industry.

This project focuses on technological innovation, employing proteomic analysis to identify biomarkers of foodborne bacterial pathogens. These

findings will contribute to the development and commercialization of rapid diagnostic assays. Additionally, discussions are currently underway regarding potential industry-academia collaborations and technology transfer agreements for future applications.

