SPEECH INFORMATION (For Conference Program Book)	
Topic	功能微生物體學驅動臨床轉譯 Functional Microbiomics-Driven Clinical Translation
Abstract	Cheng-Hsun Chiu, MD, PhD Chang Gung Microbiota Therapy Centre, and Division of Paediatric Infectious Diseases, Chang Gung Memorial Hospital, Taoyuan, Taiwan Microbiome-based therapeutics are treatments that use the microbes living in the human body (the microbiome) to prevent or treat diseases. These therapies aim to restore a healthy microbial balance, which is disrupted in many conditions like inflammatory bowel disease, obesity, and even some cancers. They work by modulating the microbiome through methods like administering live microbes (probiotics), prebiotics, and faecal microbiota transplantation (FMT). FMT is the administration of a solution of faecal matter from a donor into the intestinal tract of a recipient in order to directly change the recipient's gut microbial composition and confer a health benefit. Because of the increasing use of broad-spectrum antibiotics, *Clostridioides difficile* infection rates are soaring in frequency and severity, and the spectrum of susceptible patients is expanding beyond the traditional scope of hospitalized patients receiving antibiotics. FMT is becoming increasingly accepted as an effective and safe intervention in patients with recurrent disease, likely due to the restoration of a disrupted microbiome. Cure rates of > 90% are being consistently reported from multiple centres in different countries. FMT can be provided through a variety of methodologies, either to the lower proximal, lower distal, or upper gastrointestinal tract. The human gut microbiome provides colonization resistance from bacterial pathogens such as *C. difficile.* The ever-increasing understanding of how the microbiome affects health and disease suggests that human microbiome data should be included in precision medicine approaches. Understanding how broadly host–microbe associations are maintained across populations is revealing individualized host–microbiome phenotypes that can be integrated with other '-omics' data to enhance precision medicine. The presentation will focus on the role of gut microbiota in *C. difficile* infection and colonization and summarize the application, reported results, factors in donor selection, appropriate patient criteria, and the recent advances of FMT in the treatment of recurrent or refractory *C. difficile* infection and as a treatment modality in precision medicine. The future direction of microbiome-based therapeutics will also be addressed.