

## The establishment and composition of donor-like gut microbial community after faecal microbiota transplant in sepsis

**Qiurong Li**

Nanjing University, China

Faecal microbiota transplantation (FMT) is historically known to be an effective treatment for recurrent *Clostridium difficile* infection (CDI), but it is unknown whether it can treat the bacterial dysbalance with gut-originated infection and sepsis in the patient. The objectives of this study were to examine the availability of FMT in treatment of septic infection and to explore its involvement in re-establishment of normal faecal microbiota in the sepsis. In this study, a septic patient (female, 29 years old) with severe diarrhea was administered via nasoduodenal tube with a whole fecal suspension from one healthy girl. We used denaturing gradient gel electrophoresis (DGGE) and 16S rRNA gene pyrosequencing approaches to characterize the bacterial composition of the faecal microflora in the patient before and after fecal transplantation administration. By 5 days post-transplantation, the fecal bacterial composition of the recipient was highly similar to that of the donor and was dominated by the divisions Firmicutes and Bacteroidetes which were deficient in the patient's residual microbiota prior to therapy. Interestingly, the change in bacterial composition in the patient was accompanied by resolution of the patient's symptoms including fever, bacteremia and diarrhea. The results imply that FMT lead to demonstrable, clinically important benefits for treatment of septic infections.

### Biography

Qiurong Li has completed her M.D. in 1997 from Herbin Medical University and postdoctoral studies in 2002 from Rheinisch-Westfälische Technische Hochschule Aachen, Germany. She is the Director of Research Institute of General Surgery and a Professor of Surgery in Jinling Hospital Nanjing University. She has published more than 20 papers in reputed journals including *Annals of Surgery*, *American Journal Transplantation*, *Critical Care Medicine*, and *Journal of Pathology* etc.

liqiurong@yahoo.com