Fecal microbiota transplantation (FMT) is a treatment to restore abnormal microbial compositions of the gut by introducing fecal microbiota obtained from a healthy donor into a diseased individual. There has been a growing interest in the use of FMT as a treatment of various diseases including recurrent *Clostridium difficile* infection (CDI), inflammatory bowel disease (IBD), and irritable bowel syndrome (IBS). FMT can also be used to treat diseases other than gastrointestinal disorders in which the gut microbiota is disturbed, for example, metabolic disorders, autoimmune diseases, and psychiatric disorders. Despite the increasing applications of FMT, there are no standard protocols especially for diseases except recurrent CDI. Many aspects of FMT procedures vary regarding donor selection, preparation of fecal materials, recipient preparation, route of administration, and frequency and its interval. Of importance, FMT is successful only for treating recurrent CDI at this time. A randomized controlled trial (RCT) reported a success rate of ~90%. Like CDI, dysbiosis-associated intestinal diseases, such as UC and IBS, may be another good indications for FMT, although limited evidence is available on the use of FMT for the treatment of UC. Only two small RCT for UC have been reported, but the results of efficacy are inconsistent. Our group decided to start pilot study for safety trial of FMT for patients with UC (10 patients) or IBS (15 patients) in Japan at the beginning since 2013. Under excess expectation brought from mass media, we concluded that FMT may be safe, but FMT for UC is not efficacious, but that for IBS may be promising. We will present our results with current status of FMT from other groups.