**Procedure of FMT and Bacterial identification**

Two healthy male donors who are not related to the patients were selected according to the inclusion and exclusion criteria recommended in the European consensus on FMT\(^1\). Findings of medical history, physical examination, and laboratory test are available in Supplemental Digital Content (Table S2). The donors were requested to maintain a normal diet before and during donation. Before donation, a routine questionnaire was used to identify any temporary healthy problems. Fifty grams of fresh stool from each donor were homogenized with 500 mL of sterile normal saline (0.9%NaCl) in a sterile blender. The suspension was filtered through two layers of sterile gauze to remove solid and large substances. Filtrate was then centrifuged (3000 r/min; 15mins; 4°C) and the supernatant was discarded. The sediment was then dissolved with 200 mL normal saline (0.9% NaCl). The whole procedure for preparation of fecal microbiota suspension was completed within 3 hours in a biological safety cabinet. The final suspension was then delivered into the patients’ colon through transendoscopic enteral tube (Nanjing FMT medical Co. Ltd, Nanjing, China) deployed via colonoscope by skilled physicians, or through retention enema performed by caregivers in the ward.

**Bacterial identification**

Fecal samples from donors and patients before, during and post FMT were collected in sterile containers and immediately stored in -80°C for 16s rRNA gene sequencing (Shanghai Mobio Biomedical Technology Co., Ltd., Shanghai, China) using the Miseq platform (Illumina Inc., USA) according to the manufacturer’s
Bar plots and PCA plots were generated in R (http://www.R-project.org/).

**Definition**

We defined “refractory IgA nephropathy” as a 24-hour urinary protein (24-hUP) >1000mg after at least two round of regular steroids and/or immunosuppressant therapy were performed, or regular steroids and/or immunosuppressant therapy were not tolerated and 24-hUP >1000mg. Partial clinical remission was defined as a 50% decrease of 24-hUP compared to baseline, but a level of 24-hUP more than 200mg.

**References**

[1] Cammarota G, Ianiro G, Tilg H et al. European consensus conference on faecal microbiota transplantation in clinical practice. Gut. 2017;66(4):569-80.

[2] Schloss PD, Westcott SL, Ryabin T et al. Introducing mothur: open-source, platform-independent, community-supported software for describing and comparing microbial communities. Appl Environ Microbiol. 2009;75(23):7537-41.