

Host-Microbiome Interactions group

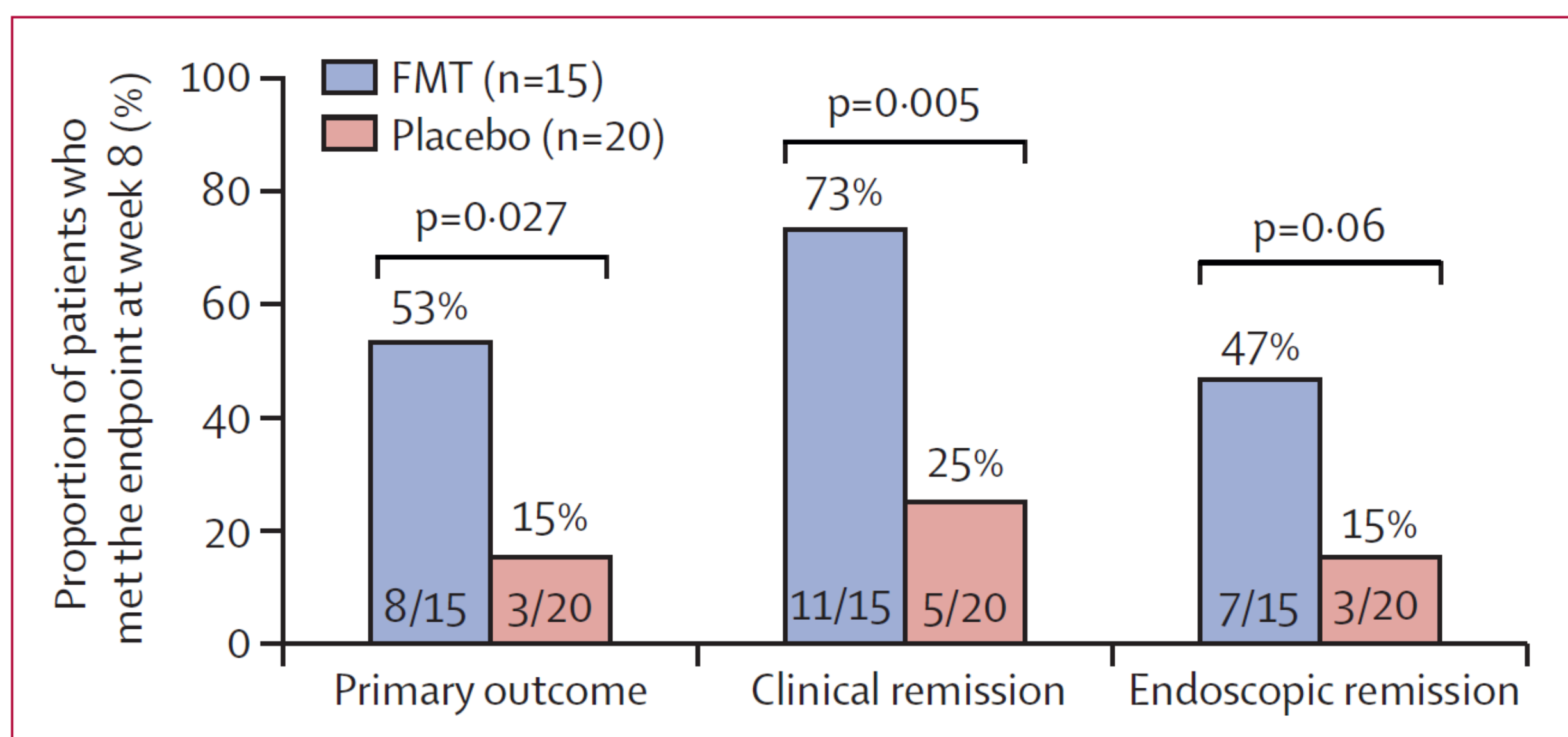
Supervisor:

Scientia A/Prof Nadeem Kaakoush (n.kaakoush@unsw.edu.au)

BACKGROUND

Summary: A double-blind, randomised, placebo-controlled trial was conducted at two centres in Australia. Eligible patients were with active ulcerative colitis. After 2 weeks of antibiotic therapy, patients were randomly assigned to receive either oral lyophilised FMT or placebo capsules for 8 weeks. Eight (53%) of 15 patients in the faecal microbiota transplantation (FMT) group were in corticosteroid-free clinical remission with endoscopic remission or response, as were three (15%) of 20 patients in the placebo group (difference 38.3%, 95% CI 8.6–68.0; $p=0.027$; odds ratio 5.0, 95% CI 1.8–14.1).

Conclusion: Antibiotics followed by orally administered FMT was associated with the induction of remission in patients with active ulcerative colitis.

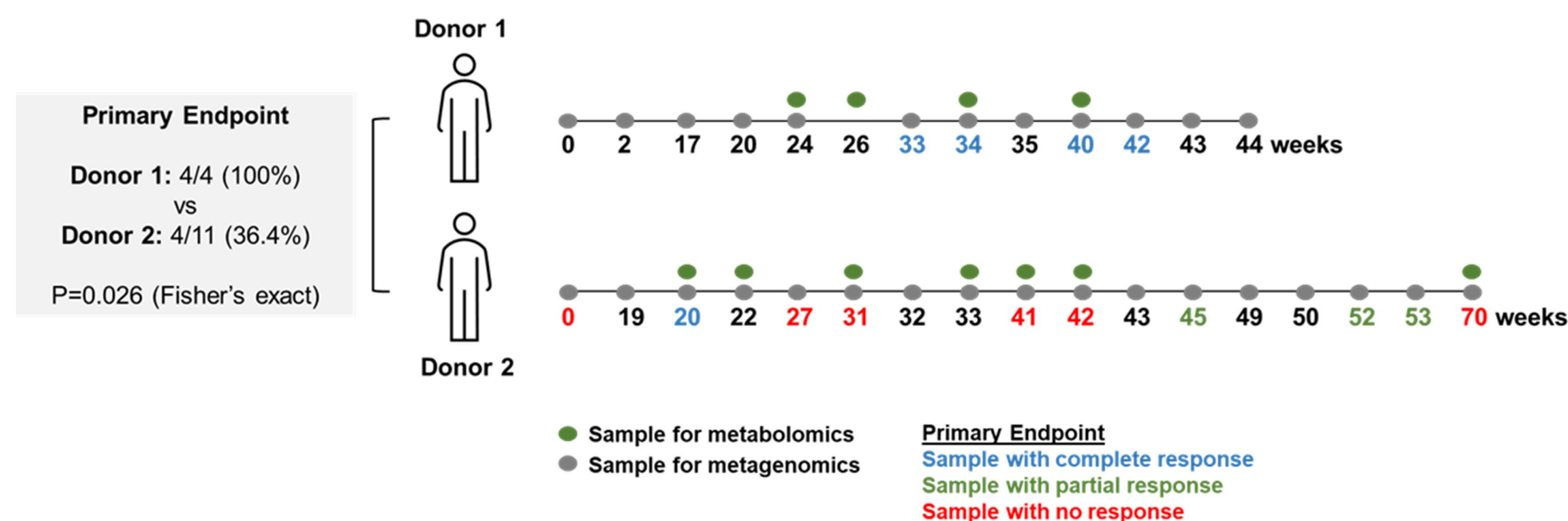


AIMS

Characterise bacterial species associated with faecal microbiota transplantation efficacy in ulcerative colitis with the future aim of creating defined microbial therapeutics

METHODS

Donors within the clinical trial had differential efficacy and were sampled long-term. Next, we need to study their microbiotas to develop microbial consortia that may be therapeutic using the strategies below



Handling human biospecimens

Next generation sequencing

Bioinformatics and biostatistics

Isolation and characterisation of bacteria

Host-pathobiont interactions

Microbial physiology