

Supplementary Information

A trans-kingdom battle between donor and recipient gut microbiome influences fecal microbiota transplantation outcome

Negin Kazemian¹, Milad Ramezankhani¹, Aarushi Sehgal², Faizan Muhammad Khalid¹, Amir Hossein Zeinali Kalkhoran³, Apurva Narayan³, Gane Ka-Shu Wong^{4,5,6}, Dina Kao^{7*} & Sepideh Pakpour^{1*}

¹*School of Engineering, University of British Columbia, Kelowna, BC, Canada*

²*Department of Computer Science and Engineering, National Institute of Technology, Hamirpur, Himachal Pradesh, India*

³*Department of Computer Science, University of British Columbia, Kelowna, BC, Canada*

⁴*Department of Biological Sciences, University of Alberta, Edmonton, Alberta, Canada*

⁵*Department of Medicine, University of Alberta, Edmonton, Alberta, Canada*

⁶*BGI-Shenzhen, Beishan Industrial Zone, Yantian District, Shenzhen, China*

⁷*Division of Gastroenterology, Department of Medicine, University of Alberta, Edmonton, Alberta, Canada*

* Corresponding authors

sepideh.pakpour@ubc.ca (SP)

dkao@ualberta.ca (DK)

Table S1. Clinical characteristics of rCDI patients receiving FMT. Among recipients, 9/17 patients were successfully treated with a single FMT (53% successful FMT), while 8/17 patients failed the first FMT and required a second procedure. There was no difference between the two groups in factors of age ($p=0.7039$), sex ($p=1.000$), or duration of rCDI pre-FMT ($p=0.4237$). The Shapiro-Wilk test was used to determine if data were normally distributed. If normally distributed, a Student t-test was used, and if not the nonparametric Mann–Whitney U test was performed.

	Single FMT	Repeated FMT
Number of patients	9	8
Age	67.7 (35.3-84.9)	71.4 (49.5-83.8)
Gender	6 male; 3 female	5 male; 3 female
Average duration of rCDI pre-FMT	150.4 days (71-275)	126.2 days (53-246)

Numbers are given as means with range in brackets.

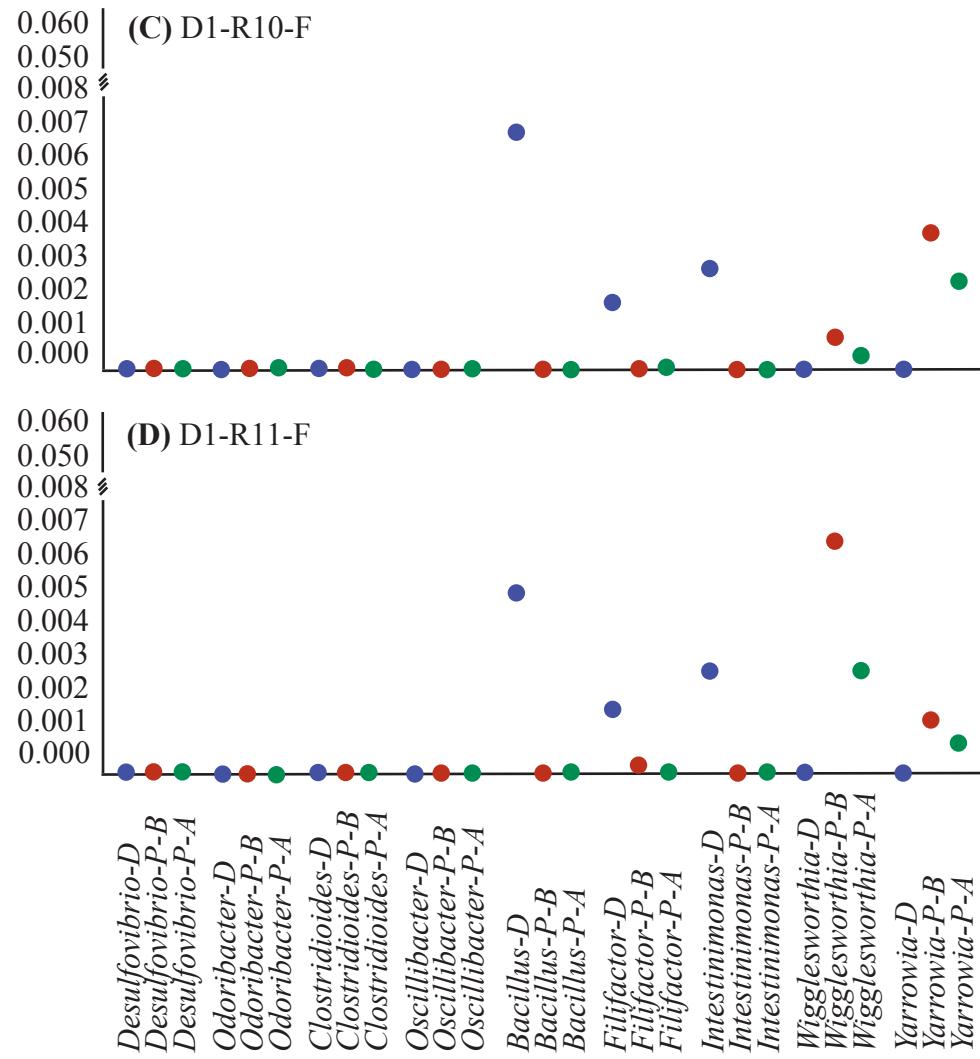
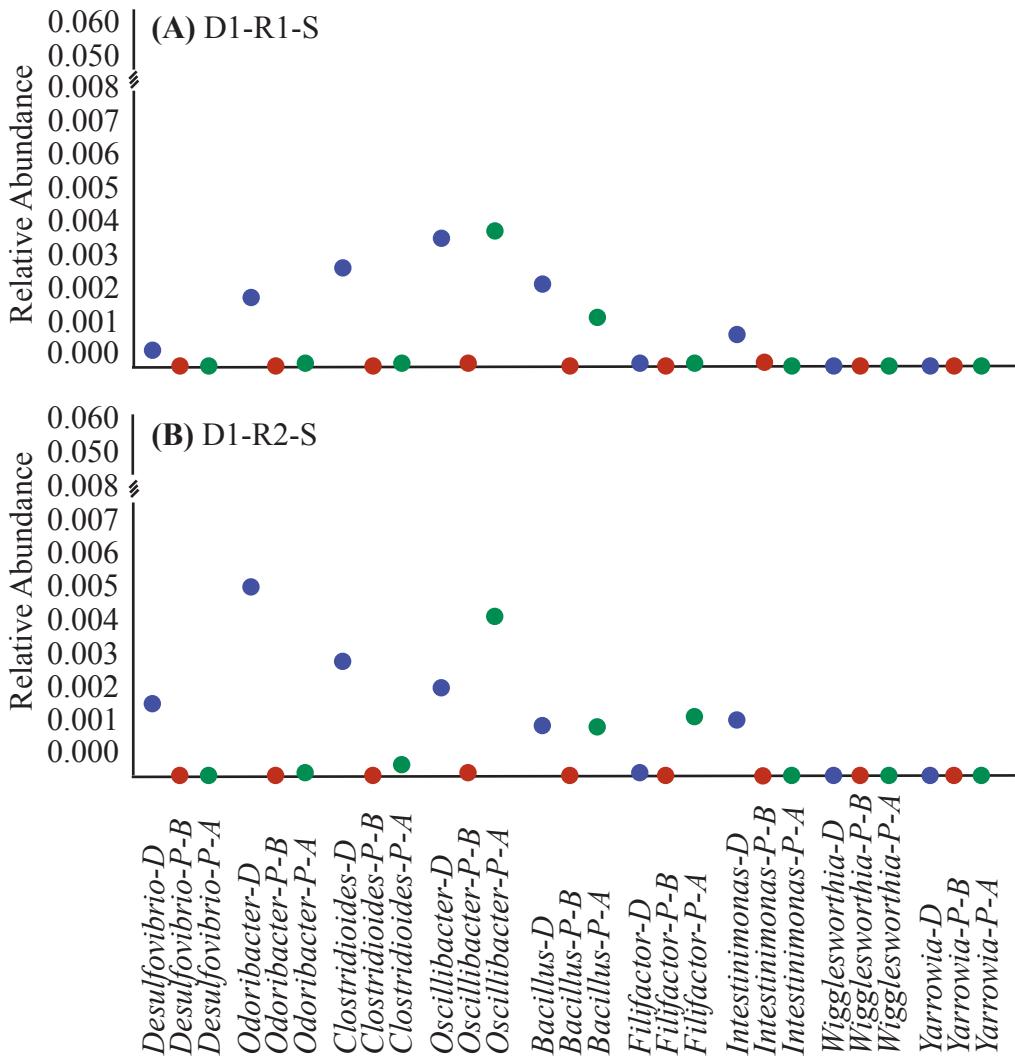


Fig. S1 The intra-variability of relative abundance of the top 9 features of donor 1 (**D1**) samples and their corresponding recipients, pre- and post-FMT leading to successful (**A** and **B**) and failed (**C** and **D**) FMT outcomes.

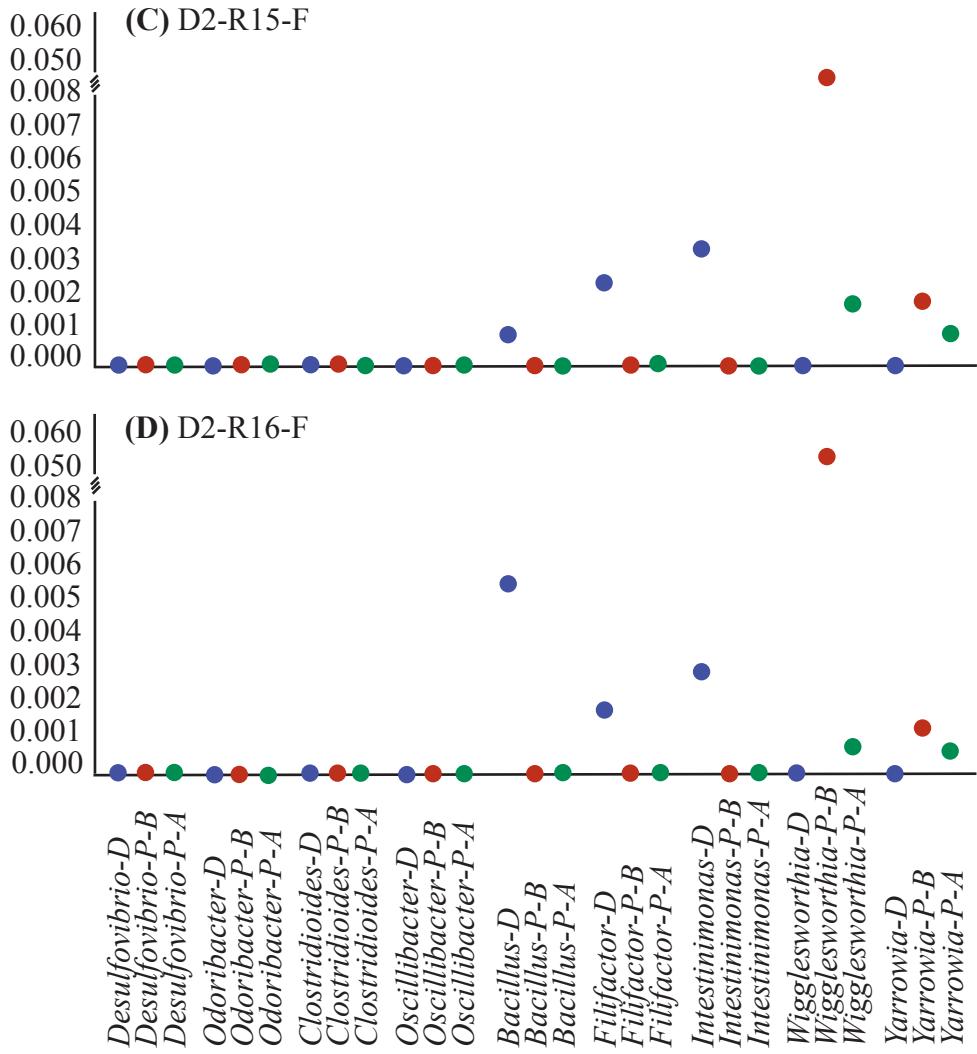
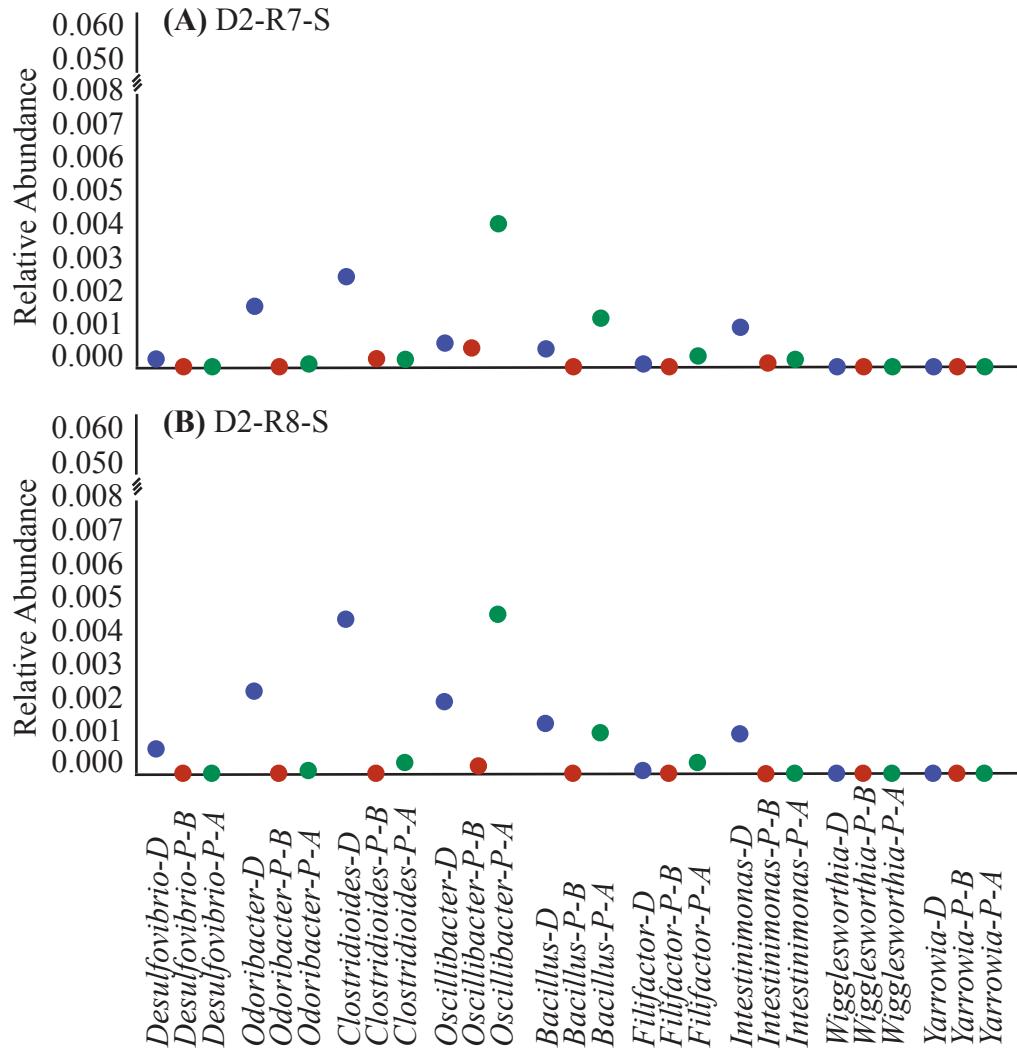


Fig. S2 The intra-variability of relative abundance of the top 9 features of donor 3 (**D3**) samples and their corresponding recipients, pre- and post-FMT leading to successful (**A** and **B**) and failed (**C** and **D**) FMT outcomes.