TEMPLATE-DATA

Dataset

The biological dataset of Lee et al. (Lee et al., 2016) study is used as the template data of the DivCom. This dataset is publicly available at the European Nucleotide Archive database (https://www.ebi.ac.uk/ena/browser/) with accession number: PRJEB48168.

Objective

This particular dataset was selected as the study's objective was in line with the requirements of DivCom. This research aimed to assess the effects of Per Oral (PO) and Intravenous (IV) iron replacement therapy (IRT) in patients with two types of Inflammatory bowel disease (IBD) and a group of Non-Inflamed individuals with iron deficiency. The cohort consisted of Crohn's Disease patients (CD, N=31), Ulcerative colitis patients (UC, N=22), and Non-Inflamed individuals (NI, N=19); in total, 62 subjects were involved in this study. The NI individuals were used as the control group, while the CD and UC patients as the test groups. All the subjects were randomly separated into PO or IV groups and followed the corresponding therapy for three months.

Preprocessing

The raw sequences were processed through the IMNGS platform (Lagkouvardos et al., 2016) implementing the UNOISE3 (Edgar, 2016) and UPARSE (Edgar, 2013) pipelines, with the default parameters. The number of samples of each category that fulfilled the quality assessment and eventually took part in the final analysis is summarized in following Table.

Iron intake	NI (Non- inflamed- reference group)	CD (Chron's Disease- test group)	UC (Ulcerative colitis – test group)
PO	9	12	10
IV	10	14	7
Total	19	26	17

References

Edgar, R. C. (2013). UPARSE: highly accurate OTU sequences from microbial amplicon reads. *Nature methods* 10, 996–998.

Edgar, R. C. (2016). UNOISE2: improved error-correction for Illumina 16S and ITS amplicon sequencing. *BioRxiv*, 081257.

Lagkouvardos, I., Joseph, D., Kapfhammer, M., Giritli, S., Horn, M., Haller, D., et al. (2016). IMNGS: A comprehensive open resource of processed 16S rRNA microbial profiles for ecology and diversity studies. *Scientific Reports* 6. doi:10.1038/srep33721.

Lee, T., Clavel, T., Smirnov, K., Schmidt, A., Lagkouvardos, I., Walker, A., et al. (2016). Oral versus intravenous iron replacement therapy distinctly alters the gut microbiota and metabolome in patients with IBD. *Gut* 66, 863–871. doi:10.1136/gutjnl-2015-309940.