



Gut Microbiome Restoration Through Phytocompounds: A Novel Approach To Treat Inflammatory Bowel Disease

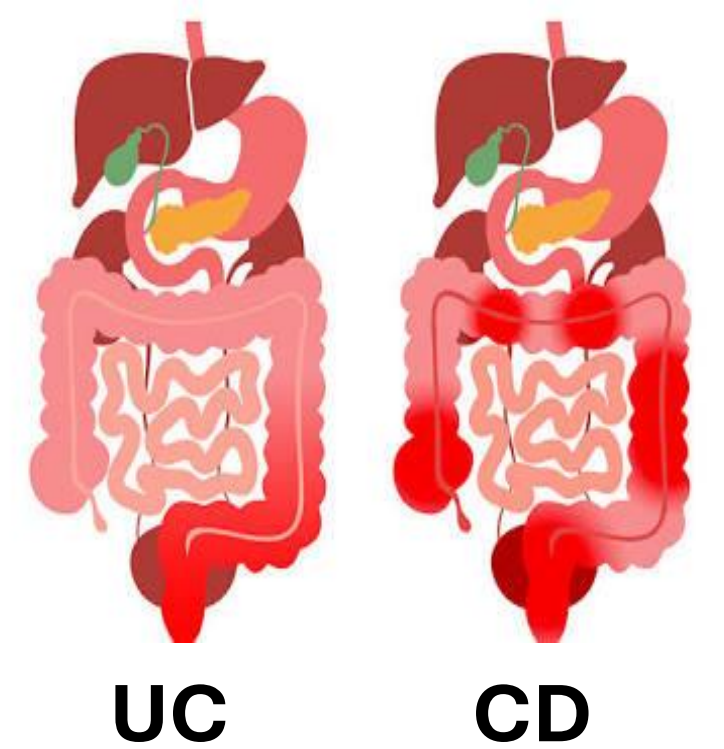
Md. Mizanur Rahaman¹, Phurpa Wangchuk², Subir Sarker¹

¹Biomedical Sciences and Molecular Biology, College of Medicine and Dentistry, James Cook University, Townsville, QLD 4811, Australia.
²College of Science and Engineering, James Cook University, Nguma Bada campus, McGregor Rd, Smithfield, Cairns, QLD 4878, Australia.

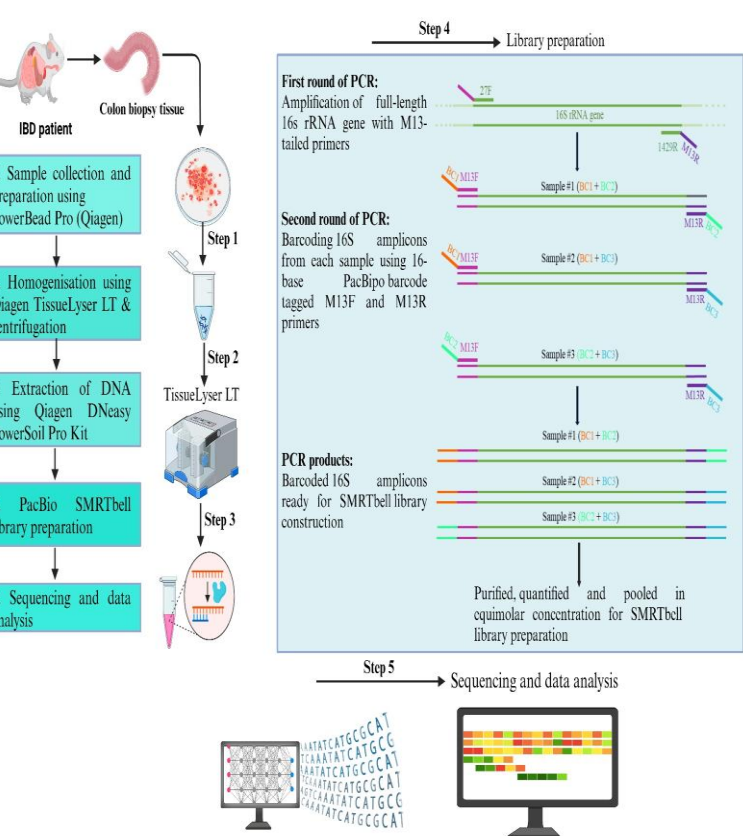
Email: mdmizanur.rahaman@my.jcu.edu.au

BACKGROUND

- ✓ IBD is a chronic intestinal condition primarily divided into UC & CD
- ✓ IBD results from structural imbalances or dysbiosis in the microbiome
- ✓ *Firmicutes* and *Bacteroidetes* are the predominant phyla in the intestines, with *Proteobacteria* and *Actinobacteria* comprising the majority of other bacteria
- ✓ Plants compounds are being investigated as potential remedies for a variety of inflammatory disease

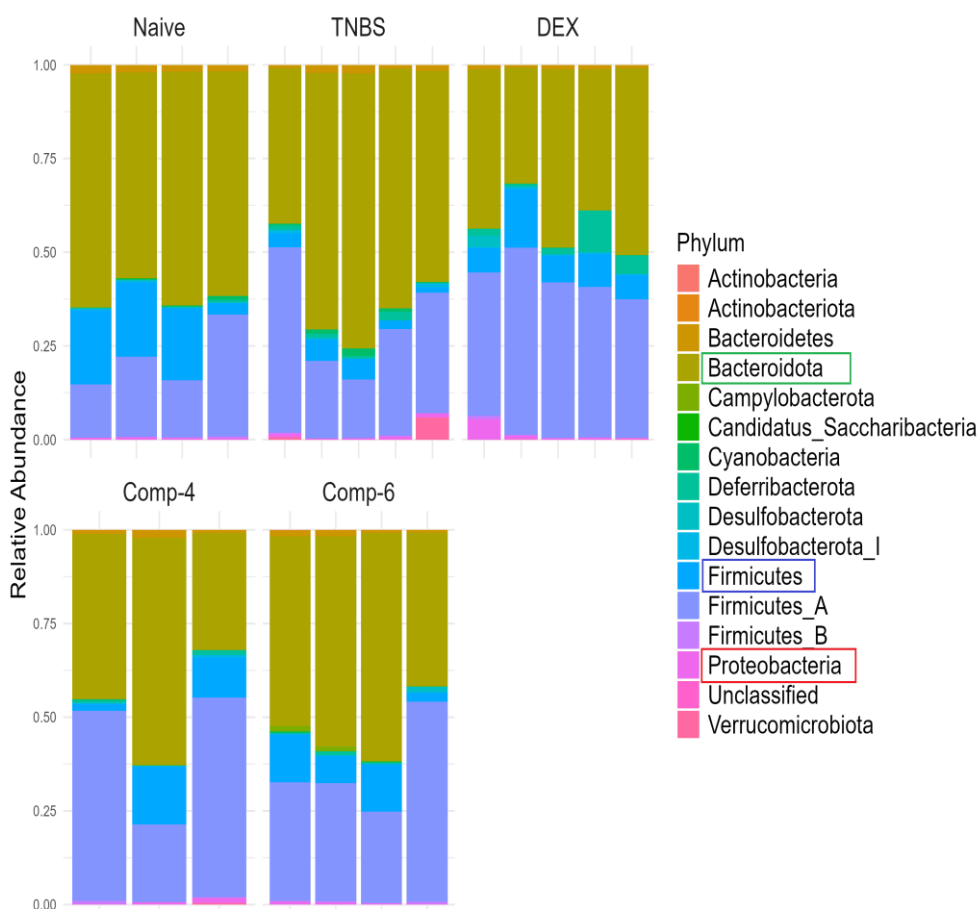


METHODS

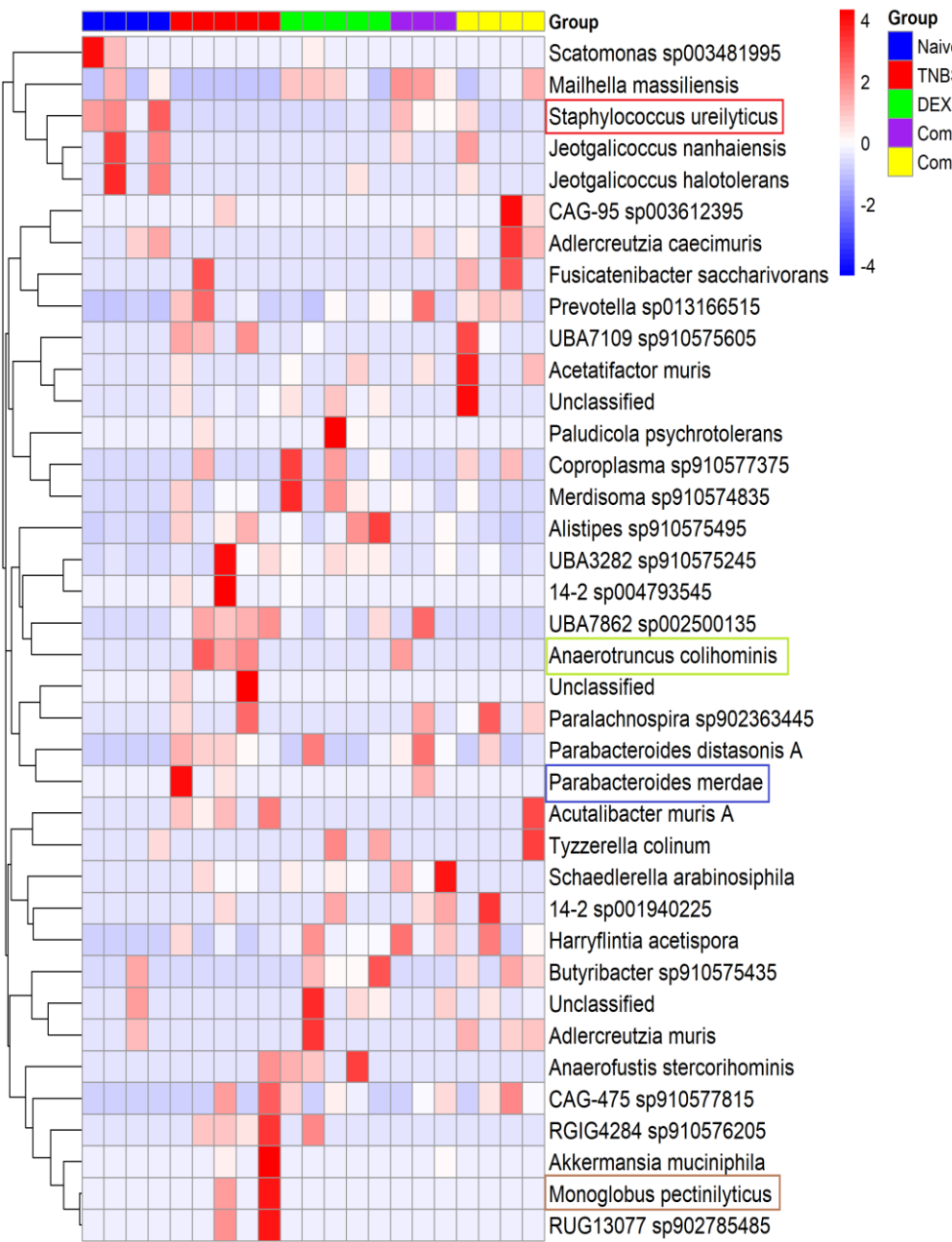


RESULTS

Phylum Level Abundance Study



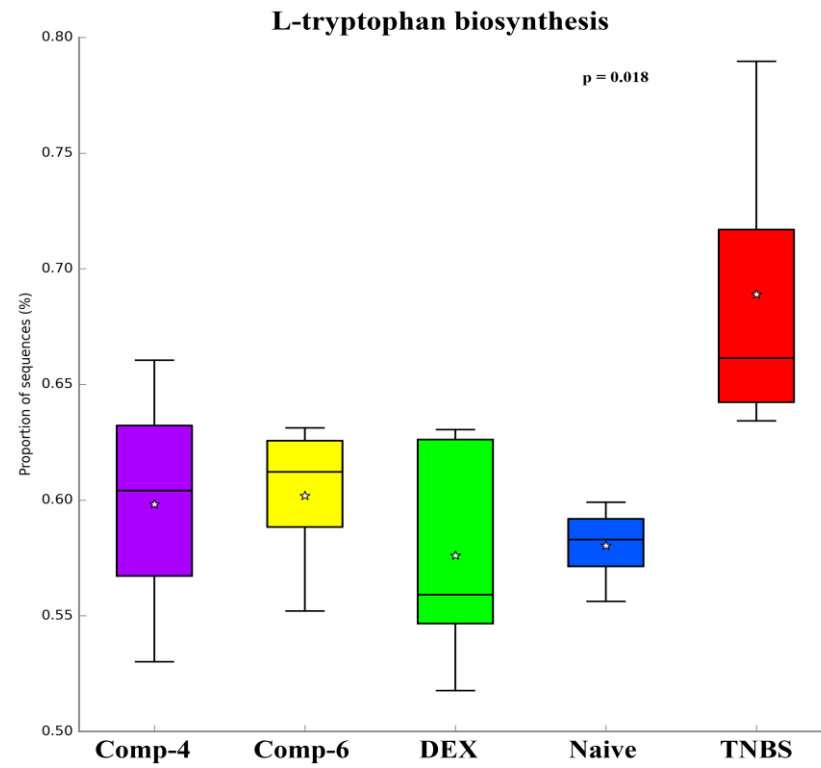
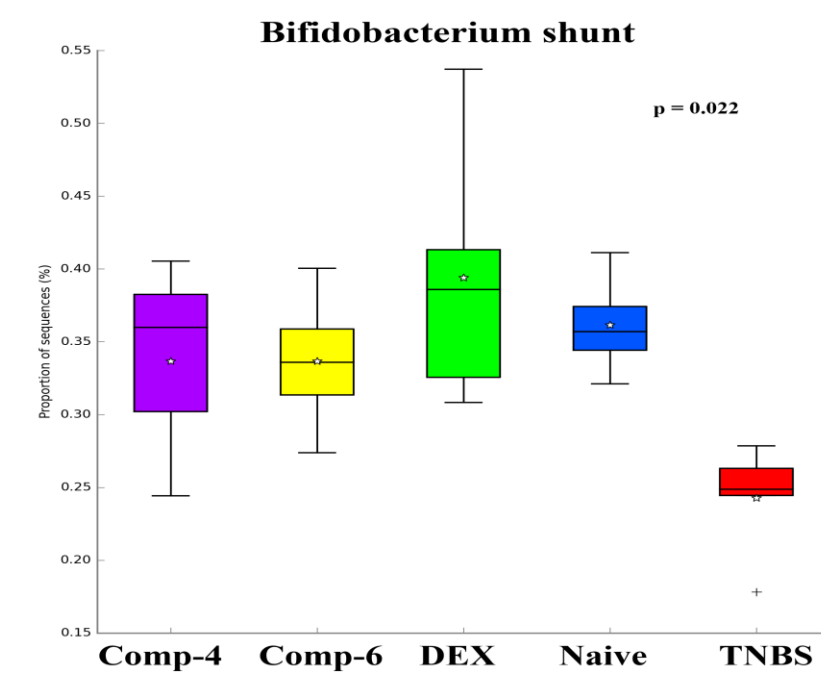
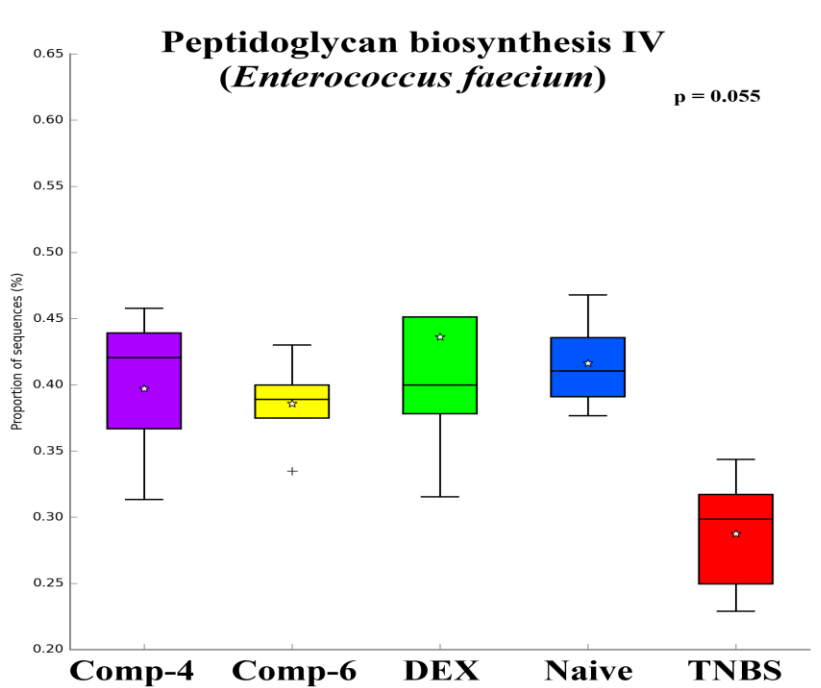
Species Level Abundance Study



SUMMARY

- ✓ Microbial restoration and maintenance of symbiotic condition
- ✓ Gut microbial pathway modulation
- ✓ Demonstrated therapeutic potential

Microbial Functional Pathway Study



ACKNOWLEDGEMENT



Australian Government
Australian Research Council

College of Medicine
and Dentistry

