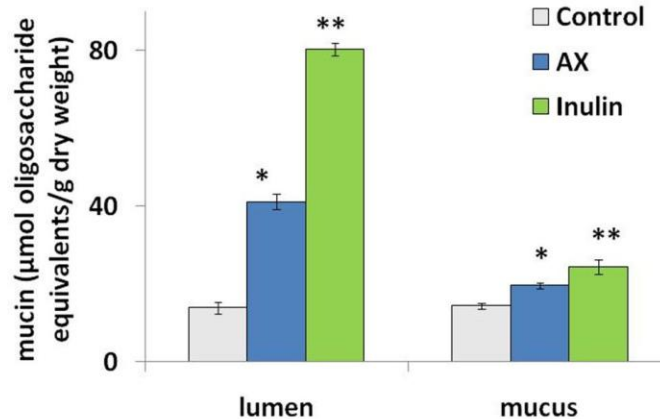


The immune system of the host is a powerful tool to control/select intestinal microbes → Hypothesis 1: The host selects submissive gut microbes

- ✓ Luminal = opportunistically submissive microbes which perform important metabolic conversions
- ✓ Mucosal = truly submissive microbes (peacekeepers) which fine tune the immune system

Our results:

HMA rats treated with prebiotics (Inulin and AX)



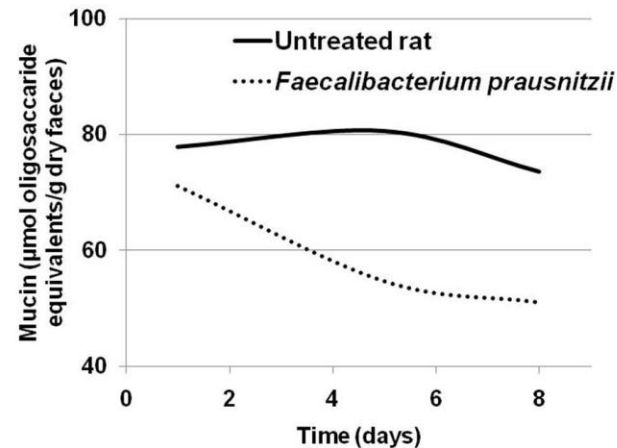
✓ Inulin favoured luminal microbes and increased host defence

✓ AX favoured mucosal microbes and lower host defence

→ Mucosal microbes important for proper immune regulation?

Conventionalized rats treated with pure strains

- ✓ *Faecalibacterium prausnitzii* addition induced lower host defence
- peacekeeper at the mucosal interface?



Hypothesis 2: Submissive gut microbes can become renegade and cause diseases e.g. obesity and inflammatory bowel diseases

Hypothesis 3: Intestinal microbes act as a coherent team

