

The Human Microbiome

- A microbiome is the collective name for the gene complement of a community
- The Human Microbiome is the collective names for all the genes that form the Human supraorganism
- It is estimated to be 3.3 million unique genes – 150x the size of the human genome.
- But as we saw from analysing the Human genome the classic gene format may just be the tip of the iceberg.

How does your gut microbiota get established?

- When you are born your gut is sterile
- However, the mother normally defecates when giving birth exposing the baby to gut microbiota (affect of c-section?)
- The mother then feeds the baby on milk only for six months or longer.
- This produces a pretty good culture of your mum's bacteria who grow well on milk
- (Does bottled milk have the same affect?)
- Then you get weaned

Then you get weaned?

- And exposed to a whole host of other bacteria
- A necessary process to mature the immune system
- But highly likely to give you regular diarrhoea on a regular basis when young
- But not to worry, the diarrhoea may clean out your colon, but it will not wash out your appendix
- The appendix is not a vestigial organ, but a store of the original microbiota your mum cultured in you
- Until you take your first course of antibiotics

Causes of Diarrhoea in adults

- Short-term
 - gastroenteritis
 - Viruses
 - Food poisoning related bacteria
 - Parasites such as protists
 - feelings of anxiety
 - drinking too much alcohol
 - food allergy
 - medicines
- Long-term
 - Gastrointestinal conditions
 - IBS, Crohn's disease, ulcerative colitis, coeliac disease, diverticular disease
 - Bowel cancer

Leaky Gut

It is not just the metabolites that the microbiota produce that can cause issues; some of the species that live in your gut, if not controlled can damage the gut mucosa

Probably the source of most allergies in later life