Faecal Microbiome in newly diagnosed Paediatric Inflammatory Bowel Disease

James Ashton, Mark Beattie, Sarah Ennis

- Department of Paediatric Gastroenterology, University Hospital Southampton, Southampton, UK
- Human Genetics & Genomic medicine, University of Southampton, Duthie building, Southampton general hospital, Southampton, SO16 6YD, UK
What is the Microbiome?

‘The collective genomes and gene products of the microbiota residing within an organism’

Normal is hugely variable
How is the Microbiome Analysed?

What is IBD?
- Crohn’s disease, Ulcerative Colitis, IBDU
- More severe in Children
- Interaction between genes, immune system and environmental factors

How does the Microbiome impact on IBD
- Gut mucosa is important in immune regulation and recognition
- Bacterial dysbiosis
- Abnormal bacteria triggers disease or Disease triggers abnormal bacteria?

What have we done in this study?
- Faecal samples over 6-8 week in 6 patients and 3 sibling controls
- Descriptive and functional analysis
Conclusions

- Statistically significant change in functional potential of bacteria from diagnosis to remission

- Sibling controls have similar profiles to patients at diagnosis

- More patients needed for longitudinal study

- Mucosal microbiome is important
Questions?

j.ashton@soton.ac.uk