

Text from poster presented at the Great Exhibition Road Festival 2022 by the Institute of Infection at Imperial College.

Microbes in Health

Medicines: Many important medicines are made using microbes

- Many antibiotics are produced by fungi or bacteria
- Insulin is made using bacteria that have had the insulin gene inserted into their DNA
- Vaccines are made from dead, weak or chopped up microbes. Some vaccines are made from DNA and are delivered to cells by (safe) viruses. Other DNA vaccines are produced by yeast.
- Fungi produce chemicals that are used as medicines to treat cancer, depression, anxiety, high cholesterol, and transplant rejection.

In your body

- Special bacteria in your eye produce chemicals that kill the harmful bacteria
- Trillions of gut microbes:
 - Your tummy is filled with “good microbes” (mostly bacteria), which keep you healthy by:
 - Helping you digest food
 - Stopping harmful microbes moving in
 - Training your immune system
 - Lowering risk for heart disease, diabetes, and cancer
 - They can also control your weight and mood!
 - This amazing and special collection of good microbes is called your microbiome.