

Agar Plates

Culturing good quality specimen on **differential agar media** can help with identifying NFGNB species:

- **MacConkey agar** – red pH indicator in media **differentiates lactose** (yellow) and **non-fermenters** (utilise lactose, turning media purple)
- Colonial appearance on plate is also helpful – identification based on known morphology

MALDI-TOF

Matrix-assisted laser desorption/ionisation – time of flight (**MALDI-TOF**) **mass spectrometry** identifies bacterial species by their **protein components**, using a **soft ionisation technique** (**laser** beams) of mass spectrometry:

- **Low cost** after initial cost of mass spectrometer
- Fast process (takes minutes after sample preparation)
- Data provided includes **degree of confidence** of the identification

Nanopore sequencing

Real time DNA **sequencing** using **nanopores** for microbial **identification and characterisation**:

- Allows for **AMR gene identification** (crucial in choosing right antibiotic therapy)
- Results in **real time**
- **Portable** sequencing