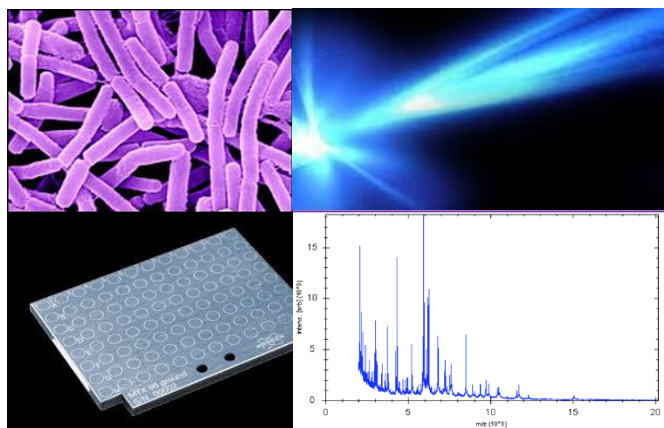


# MALDI-TOF

*(Matrix-Assisted Laser Desorption Ionization – Time of Flight)*

**Why/When:** The BSB uses MALDI-TOF to identify bacteria and fungi on a routine basis. The cost of MALDI-TOF is significantly lower and the analytical time-to-identification is faster than most biochemical methods. Like most analytical methods it has its limitations: The identification of any given organism is determined by the completeness of the databases that are available. If an isolate cannot be identified by MALDI-TOF, Sanger sequencing is then used. If it cannot be identified by sequencing, then biochemical methods are used.



The BSB's Molecular Biology Section maintains the MALDI-TOF instrument, but the most frequent users are the General Microbiology and Environmental Microbiology sections, who use the data as part of their testing algorithms.