Role of Diagnostic Microbiology Laboratory

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Microbiology

The study of organisms which are usually small in size, simple in structure (and neither plants nor animals except in the case of algae and parasites).

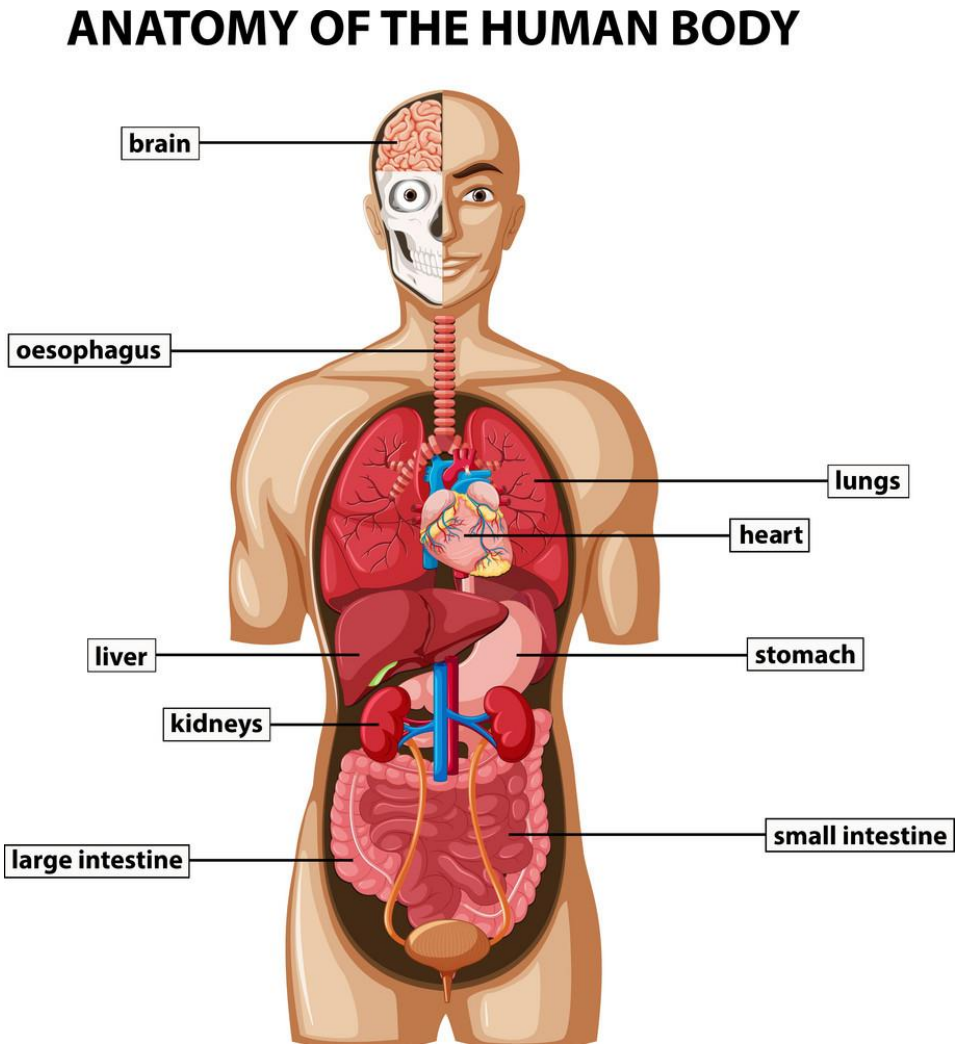
Microbes (micro-organisms) can be classified as following according by their size, culture conditions, cell wall or nuclear structures and others (from smallest to largest):

1. **VIRUS,**
2. **BACTERIA,**
3. **FUNGUS,**
4. **PROTOZOA (PARASITES)**

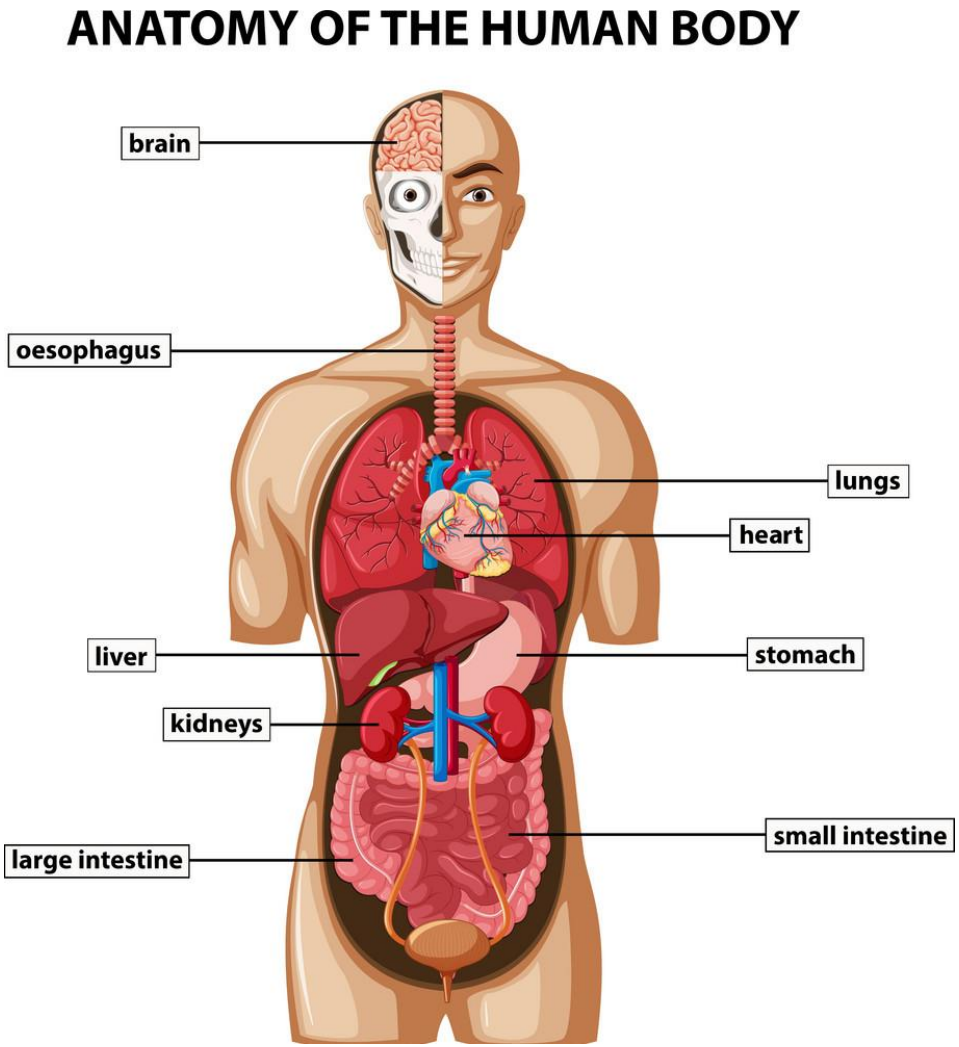
INVISIBLE to naked eyes

Microbiology Laboratory Service

- Patient specimen registration
- Putting up of specimen culture
- Bacterial identification of positive culture
- Antimicrobial susceptibility test
- Serology test (detection of bacterial and viral antigens and antibodies in patients' blood)
- Rapid Diagnosis by Nucleic Acid Amplification (for bacteria and viruses)



- Bloodstream infections
  - Blood culture
- Meningitis and infections of the Central nervous System
  - Cerebral Spinal Fluid (CSF)
- Infections of the Lower Respiratory
  - Sputum, Bronchial aspirate
- Upper Respiratory Tract Infections
  - Throat swab, Nasopharyngeal swab
- Infections of the Eyes, Ears, and sinuses
  - Swab



- Infections of the Urinary Tract
  - MSU, EMU
- Genital Tract Infections
  - Endocervical swab, Urethal swab, High Vaginal swab
- Gastrointestinal Tract Infections
  - Stool Faeces, Rectal swabs (diapers)
- Skin, Soft Tissue, and wound infections
  - Swab, tissue, biopsy (autopsy)
- Normally Sterile Body fluids, Bone and Bone Marrow, Solid tissue :
  - Pleural fluid, Synovial (joint) fluid, Pericardial fluid and Peritoneal fluid.