QUICK FACTS

- The laboratory team assists in
  - Determining presence and absence of disease/abnormalities within the body
  - Evaluating the effectiveness of treatments

- 70% of all physician decisions are based on lab test results
BLOOD BANKING

- Determine Blood types – ABO and Rh typing
- Prepare blood and components for transfusions
- Antibody screening
- Antibody identification
Chemical testing on blood and urine

Multi-Analyte Instruments:
- Cholesterol
- Electrolytes
- Cardiac and Thyroid Enzymes
- Hormones & Vitamins
- Drug Detection/Concentration

Detect antibody production to diseases/infections

Blood gas analysis
HEMATOLOGY

- Automated blood cell counts and microscopic examination of blood smears looking for:
  - Anemia, Leukemia, and other abnormalities

- Coagulation
  - Test ability of blood to clot
  - Give results for drug therapy
    - Heparin
    - Coumadin
URINALYSIS

- Analysis of urine for elements such as
  - Glucose
  - Protein
  - Blood
  - Ketones
  - Bilirubin
  - pH
  - Crystals
  - Bacteria
MICROBIOLOGY

- Work with agar plate/tube media
- Identification of bacteria, fungi and parasites
- Determine antibiotic sensitivity
Molecular Diagnostics

- Detection of:
  - Hereditary Disease
    - Cystic Fibrosis
    - Huntington’s
  - Infectious Disease
    - Genotype
    - Drug Resistance
  - Oncology
    - Treatment
  - Identification
SKILLS REQUIRED

- Aptitude for science course work
- Good hand/eye coordination and manual dexterity
- Good communication skills
- Detail orientated
- Organized and able to multitask
- Works well under pressure
- Ability to work as a team player
- Desire to help others
PLACES OF EMPLOYMENT

- Hospitals
- Clinics
- Research facilities
- Industries
- Universities
- Government
- Veterinary/zoos
- Public health
- Reference labs
- Forensics
- Law
- Other health related agencies
- And many more...
Medical Laboratory Scientist (MLS)

- Bachelors Degree in Clinical Laboratory Science
- Science Bachelors Degree plus one year training in an accredited education program
- National certification exam through BOC
- Performs laboratory testing on blood, urine, feces, spinal fluid and other body fluids
- Uses microscopes and operates complex automated instruments
- Assists physicians and pathologists in diagnosis of disease
MEDICAL LABORATORY TECHNICIAN (MLT)

- Two year Associates Degree program
- National certification exam through BOC
- Performs laboratory testing under supervision of CLS/MT
Certificate programs at community colleges (~1 semester program)

National certification exam through BOC

Performs venipuncture & heel sticks

Ensures high quality sample is collected
 JOB OUTLOOK

- Employment is expected to grow 22% between 2012 and 2022
  - Much faster growth than average
- In 2008, clinical laboratory technologist and technicians held 325,800 jobs in the U.S.
  - About ½ employees working in hospitals
  Median wages
  - 2012 CLS/MT: $57,580
  - 2012 CLT/MLT: $37,240
  - 2012 Phlebotomy: $29,730
Visit www.naacls.org for a complete listing of accredited programs

Other useful sites

- www.labcareers.org
- www.ascls.org
- www.ascp.org
- www.labsarevital.com

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