

PATHOLOGY: A CAREER IN MEDICINE - 2018 EDITION

Pathology is the medical specialty that provides a scientific foundation for medical practice

- **The pathologist is a doctor who specializes in the diagnosis and management of disease by laboratory methods.**
- Pathology has a special appeal to those who enjoy solving disease-related problems using multiple technologies.

The Pathologist in Patient Care

- The pathologist uses diagnostic and screening tests to identify and interpret the changes that characterize different diseases in the cells, tissues, and fluids of the body.
- Because of the many new tests that are being developed, other physicians rely on the pathologist for guidance and direction in use of the clinical laboratory and interpretation of test results.
- When unusual or unexpected abnormal results are identified the pathologist communicates directly with the patient's physician.
- Many pathologists have direct patient contact on a frequent basis as they perform fine-needle aspiration of lumps, supervision of apheresis therapy (a process that removes harmful substances from the blood stream), and direct communication with patients about a new diagnosis of cancer and the implications for treatment and prognosis.

Surgical Pathology

- The surgical pathologist plays a central role in the diagnosis of biopsies or of surgically removed tissues, particularly when a tumor is suspected, and works closely with surgeons, oncologists, and other physicians in such cases.

Cytopathology

- The cytopathologist is specially trained to examine and interpret the microscopic appearance of cells shed into fluids, scraped from the uterine cervix, or aspirated from tumors with a fine needle.

Autopsy

- The autopsy pathologist provides insights into the natural history of disease and the influence of therapy on disease processes, gives information to the patient's family about potential genetic disorders or evidence of a contagious infection and provides feedback to the physicians involved in the patient's care.

Clinical Pathology

- The clinical pathology specialty laboratories include hematology, microbiology, immunology, clinical chemistry (including toxicology), and the blood bank (transfusion medicine).
- In these areas, the pathologist acts as an important consultant to the clinician, recommending appropriate tests and interpreting their results.
- An important aspect of laboratory practice is maintenance of high standards of quality and patient safety in laboratory analysis.

Molecular Pathology

- Molecular testing, involving analysis of DNA and/or RNA, is used in the evaluation and management of tumors and inherited diseases, determination of what medications are most effective, and diagnosis of infectious diseases.

The Pathologist as a Consultant

- The pathologist has long been considered the "doctor's doctor," consulted by fellow physicians for selection of diagnostic tests, interpretation of laboratory results, and determination of diagnoses on tissues removed from the body. More recently, because of the range and complexity of clinical laboratory services, a role has emerged for the pathologist in explaining laboratory tests and their results directly to patients.

The Pathologist as a Teacher

- Pathologists teach medical students, residents in pathology and other clinical training programs, graduate students in basic science departments, and students in related medical disciplines.

The Pathologist in Research

- Pathologists have a unique advantage in biomedical research because of their close ties to clinical medicine, their familiarity with laboratory technology, and their recognition of and insight into the significance of diseased tissue changes.

Sources of Information

Contact with pathologists in hospitals, independent laboratories, academic medical centers, and other settings is the best way to learn about the profession and its personal rewards. For additional information about pathology as a career, contact local, state or national pathology organizations, including the:

American Society for Clinical Pathology (ASCP)

www.ascp.org

American Society for Investigative Pathology (ASIP)

www.asip.org

Association of Pathology Chairs (APC)

www.apcprods.org

College of American Pathologists (CAP)

www.cap.org

United States and Canadian Academy of Pathology (USCAP)

www.uscap.org

ICPI is a consortium of five pathology societies (APC, ASCP, ASIP, CAP, and USCAP) created specifically to promote pathology as a career through its publications and information activities. Their website is

www.pathologytraining.org.