

# Pathology Residency Program Detailed Curriculum

## Integrated AP/CP Curriculum in a Unique Environment

The Department of Pathology at Loma Linda University Health is committed to excellence in clinical practice, education and research. The four-year anatomic and clinical pathology core program is designed to train physicians to qualify for careers in the academic or community practice of pathology, and we actively encourage interest in any and all types of practices. The training is provided in the setting of a Christian institution and a health sciences university, which serves a diverse population, including many underserved communities.

## **Training sites**

The majority of residency training is based at Loma Linda University Medical Center and Loma Linda University Children's Hospital, which together serve as an adult and pediatric tertiary referral center responsible for over 2 million patient visits per year. Residency training also incorporates the nearby Jerry L. Pettis Memorial VA Medical Center, San Bernardino County Medical Examiner's Office and San Bernardino County Blood Bank.

#### **Faculty Focus**

Over 30 faculty provide a broad range of subspecialty training and expertise within anatomic and clinical pathology. In addition to the strongest commitment to patient care, teaching residents to become excellent pathologists is the foremost priority among our faculty. Abundant opportunities are available for residents to participate in departmental research programs, California Tumor Tissue Registry and other consultative pathology, as well as special techniques such as electron microscopy, immunohistochemistry, and molecular medicine.

#### **Didactic Education and Tailored Training**

- Regularly scheduled, protected didactic morning conferences are held at 8AM in anatomic and clinical pathology, some of which cover laboratory management and medical informatics.
- Unknown slide sessions are also regularly included in morning conferences.
- Pathology residents are an integral part of the medical care team at LLUH, with deliberate graduated responsibility that begins with resident case ownership from the onset of our tailored Anatomic Pathology "Boot Camp."
- Training is tailored to each resident's individual interests, with elective time provided both within the institution and utilizing outside rotations.

## Surgical pathology

This four-week rotation repeats during the four years of residency training, allowing residents to progressively develop and maintain their skills with graduated responsibility. Our caseload is broad and includes both common surgical specimens and challenging disorders and tumors, supplied by an active LLUH Transplantation Institute and Cancer Center.

The rotation includes a rotating 3-day schedule with an entire day of protected preview time to independently generate complete reports and triage ancillary testing, with oversight and advice provided as needed. The



other days include a combined signout and frozen day, and a grossing day.

Grossing instruction and support is ample, aided by working alongside instructors and students in <u>LLUH's</u> <u>Pathologist Assistants' program</u>, the only PA school in the western United States. Institute and Cancer Center.



### **Autopsy and Forensic Pathology**

The adult and pediatric autopsy pathology service provides an opportunity for residents to study and correlate morphologic abnormalities with clinical manifestations of disease, and participate in the important educational and quality assurance functions of the hospital autopsy. Residents also gain autopsy experience at the nearby Jerry L. Pettis Memorial Veterans Medical Center (VA), and forensic experience during a 2-week rotation at the San Bernardino County Medical Examiner's Office. Residents have no issues achieving the 50 required autopsies in order to take the ABP Board exam.

## **Cytopathology**

This recently revised 4-week rotation occurs incorporates daily signout of exfoliative and fine needle aspirate cytopathology specimens in both the inpatient and outpatient setting. The residents review cytology slides, prepare the reports to completion, and triage appropriate immunohistochemical studies. An integrated rapid on-site evaluation (ROSE) service provides opportunity to gain expertise in this rapidly growing discipline, helping to ensure specimen adequacy and appropriate triage for ancillary studies, thereby reducing the necessity for repeat procedures. Exposure to gynecologic and non-gynecologic cytopathology is provided, as well as training in the performance and interpretation of superficial fine needle aspiration biopsies.





## Hematopathology & Flow Cytometry

This recurring 4 week rotation provides abundant experience in the diagnosis of bone marrow, lymph node, and peripheral smear analysis. Residents are trained in the interpretation of histologic, immunohistochemical, flow cytometric, cytogenetic, and molecular diagnosis of a wide range of adult and pediatric leukemias, lymphomas, and non-neoplastic hematologic disorders. One of the rotations provides dedicated focus on the interpretation of flow cytometry. Training in performing bone marrow biopsies is also provided.

## **Transfusion Medicine and Coagulation**

The blood bank portion of this rotation focuses on the management of a hospital-based transfusion service, including practical aspects of transfusion medicine, and the management of common transfusion-associated problems. An available rotation at <u>Lifestream</u>, the blood donation center that services the Inland Empire and surrounding area, is available, with teaching by the <u>Blood Bank Guy</u>, Joe Chaffin. Joe Chaffin also provides occasional morning didactic conferences for the residency program.

## **Other Clinical Pathology Rotations**

Dedicated subspecialty clinical pathology rotations are also built into the curriculum, outlined below. Residents are supervised by the clinical pathologists or technical specialists in charge of the various laboratory sections. Experience in laboratory quality assurance, test validation, and continuous quality improvement processes is provided.

- Chemistry/Toxicology/Informatics 12 weeks (3 rotations)
- Microbiology 12 weeks (3 rotations)
- Cytogenetics 2-4 weeks
- Microbiology 12 weeks (3 rotations)
- Molecular Diagnostics– 2-4 weeks
- Lab Administration 2-4 weeks



# Jerry L. Pettis Memorial Veterans Medical Center (VA) rotation

Residents rotate at the VA Medical Center in Loma Linda for ten 4-week rotations. Anatomic pathology responsibilities include handling surgical pathology specimens, performing autopsies, and presenting at multidisciplinary oncology tumor boards. This rotation also provides the opportunity to serve a different patient population, adding exposure to a greater diversity of surgical specimens. Opportunities to perform superficial fine needle aspirate biopsies are also available.