

# ZSFG JOINT CONFERENCE COMMITTEE MEETING

September 24, 2024

# MEDICAL STAFF Report

## Contents:

1. Chief of Staff Report
2. Chief of Staff Action List
  - a. Laboratory Medicine Rules & Regulations Revisions
  - b. Privileges List and Summary of Changes: None
3. Laboratory Medicine Biennial Service Report

**ZSFG CHIEF OF STAFF REPORT**  
**Presented to the JCC-ZSFG on September 24, 2024**  
**September 2024 MEC Meeting**

**CLINICAL SERVICE REPORT:**

Laboratory Medicine Service – Barbara Haller, MD, Chief

The highlights of the report are as follows:

**I. Mission and Scope of the Clinical Service**

- a. The mission of the Laboratory Medicine Service is to provide accurate, timely, efficient, cost-effective, and high-quality laboratory services in a safe and supportive work environment and to further the UCSF/ZSFG academic missions of research, education, patient care, and public service. The Department's vision is to excel in clinical laboratory testing and provision of transfusion services, consultation, teaching, training, scholarship, and discovery in laboratory medicine.
- b. Clinical Lab Spaces – The clinical lab spaces are located throughout the campus. The main lab is on the second floor of building 5, the Blood Bank and Point of Care Office is located on building 25. Also, on building 100 we have Lab Info Systems, Toxicology, Serology and Lab Support Services.
- c. Clinical Services Provided-There's a comprehensive laboratory testing services provided and operating 24/7 all throughout the year. There's approximate > 500 different laboratory tests including Transfusion Services for ZSFG and Laguna Honda Hospital. The services included management of Point-of-Care Testing at ZSFG, oversee transplant services, OR, Breast Milk Programs and limited outpatient phlebotomy services. It was mentioned that clinical consultation is done by the laboratory medicine faculty and lab medicine residents.
- d. Scope of Services-The team has been excited about the EPIC Beaker project. The extensive services provided by the Lab Medicine Department are the following:
  - Support Acute Care, LHH, and Outpatient Testing
  - Blood Bank and Transfusion Services
  - Routine Chemistry, Toxicology, Special Chemistry, Endocrinology
  - Hematology, Coagulation, Urinalysis Bone Marrow and Body Fluid Analysis
  - Microbiology, Immunology, Parasitology, Mycology, Mycobacteriology, Virology, Molecular Biology
  - Specimen Collection and Management, Outpatient Phlebotomy
  - Laboratory Support Services (Beaker Project)
  - Laboratory Information Systems
  - Point-of-Care Oversight and Support
  - Laboratory Consultative Services
  - Referral Services for Esoteric and Genetic Testing
- e. Scope of Clinical Work – The number of tests went down during COVID, but billable tests have gone up to 1.5%. Both Blood Components Issued and Number of Outpatient Phlebotomy Collections) posted increase in volume. In 2022-2024, there are about 2.2 million Billable Tests (45% Inpatient, 32% Outpatient and 22% in Emergency).
- f. Other Instruments and Testing:
  - SARS COV-2: We have 4 Instruments with an average of 109 tests per day.
  - Haologic Panther and Genexpert for COVID -19 Testing: We have 4 Instruments with an average of 109 tests per day. The turnaround time for Genexpert is within 2 hours timeframe.
  - Rapid ID Now-This is being use by the ED with 30 minutes turnaround time.
  - Biofire Torch Respiratory Virus Panel-This panel helps detects 22 different respiratory pathogen including viruses such as SARS-CoV-2, influenza, RSV and other bacteria such as pertussis and pneumonia.
- g. Clinical Lab Leadership Structure- Dr. Haller is the Director. She is supported by directors and staff in the following areas: Administration, Microbiology, Core Laboratory, and Blood Bank. The POCT team has been doing a tremendous amount of work and kept the Lab Medicine on track with the regulations. Overall, there are 149.5 FTEs Clinical Lab staff (1% of FTEs are paid out of research/recharge funds) and 5.8 FTEs Faculty.

**II. Faculty and Residents**

- a. Faculty - The Lab Medicine team was delighted and honored for Dr. Zane Amenhotep receiving the UCSF Department of Laboratory Medicine Teaching Award. There are 5.8 FTEs Faculty.
- b. Residents-There are joint Laboratory Medicine and Pathology UCSF residents who can experience a comprehensive training. Residents training rotation is one to one supervision with responsible faculty. Some choose CP only and other choose AP/CP residents. The Chemistry & Toxicology and Microbiology has one resident rotating every 1-2 months, and Hematology, Blood Bank and Cell Therapy with one resident every other month.
- c. Fellows-Currently have three Clinical Chemistry Fellows. They are trained and foresee to be future assistant professors and clinical lab directors nationwide. These fellows have been involved with the Lab Medicine Beaker project.
- d. Medical Students (General Lab Med and Microbiology)-This program is currently on hold until the end of the year due to the pandemic and retrofit constructions.

- e. Clinical Lab Scientists Students- This is in conjunction with San Francisco State University and most of these students stay and work in our lab.

### **III. Performance Improvement and Patient Safety Initiatives**

- a. HSV and VZV PCR Turnaround Time (Send out versus done In-House)-The PIPS results shown a decrease turnaround time when done In-House compared to Send out. Also, test done in house is more cost-effective than sending it out.
- b. In 2022-SCM management and HIMS collaborated some ideas about workflow to scan and post paper requisition in EPIC. Storing documents electronically has improved the department's workflow.
- c. In April 2023-Microbiology went live; subsequently, Blood Bank went live in July.
- d. In February 2023-Clinical laboratory updated reference intervals for chemistry tests to align with the current testing methodologies and appropriate practice guidelines.
- e. Hematology Analyzer-With the support of the Hospital Administration, a back-up Hematology Analyzer Instrument (XN550) was provided in replacement of the aging XN450 analyzers.
- f. Involvement in Hospital/Medical Staff Committees –The Department of Lab Medicine maintain active committee participation and weekly leadership meetings.

- IV. Research**-The Laboratory Medicine research ranges from original basic research to translational research. These include studies of High-Sensitivity Troponin, looking at Biomarkers to assess acute liver injury, develop new methods for detection of drugs using mass spectrometry. There is a goal to offer Chagas Disease screening in our lab soon.

### **V. Financial Report**

- a. Revenue vs Expenses –The department revenue has been steadily going up. Although there's an increase with the number of tests, the expenses remain stable. The department became more efficient when transitioning to an electronic automation and paperless processes.
- b. Clinical Lab Research Report FY 24-25 – The laboratory has offered research testing for 80 researchers over the last year. A large amount of research testing is done for the HIV/ID/PHP groups. Additional groups served are Medicine, Gastroenterology, Cardiology, and others.

### **VI. 2022-2024 Achievements**

- a. The most recent Laboratory Joint Commission inspection happened in June 2024. An excellent performance was achieved by the incredible leadership and staff. There were only 7 findings out of 226 Lab Standards and 993 elements of performance. Thus, equal to 99% in compliance with TJC requirements.
- b. New Instruments and Tests: 1) Microbiology: Liaison MDX for HSV/VZV PCR and Panther Fusion for Influenza/RSV/COVID PCR 2) Hematology: UN3000 for automated urinalysis and XN-550 automated cell counts 3) POCT: New ACT instrument for Cath Lab and Rapid HIV STAT PAK

### **VII. Summary**

- a. Strengths – These include strong leadership, experienced, and hard-working staff. Also, there is an extensive test lab menu. Moreover, there are consultative services by faculty, residents, and lab leadership team. In addition, there are excellent teaching and strong research programs. The UCSF affiliation is an advantage with collaboration in research and training. There is also great support from ZSFG leadership and staff.
- b. Challenges – These include the following: Fill in open positions, implementation of new information systems in 2025 (e.g. EPIC Beaker, Softbank Blood Bank, Data Innovations Middleware Information Systems), navigate during construction and learn automation all at the time.
- c. Plan and Goals for 2024 – 2025 – They are the following:
  - Recruit new Lab Administrator, Blood Bank Medical Director, and Microbiology Director
  - Install new Laboratory Automated Track and set up instruments on track.
  - 18 months of work on EPIC Beaker build/testing for Clinical Lab, Anatomic Pathology Lab and Public Health Lab
  - Manage budgets and update contracts.
  - Provide Lab testing during retrofitting and major Core Lab projects.
  - Support Leadership and staff during all challenges lab projects.
  - Manage shortages like shortage of blood culture bottles.
  - Support DPH and hospital initiatives.
  - Start Lab Utilization Committee

Dr. Mary Mercer and MEC members expressed gratitude for the extensive work done by the Department under Dr. Barbara Haller's excellent and outstanding leadership.

- VIII. Laboratory Medicine Rules and Regulations**-An approval is requested for the Lab Medicine Service's rules and regulations.

**ZSFG CHIEF OF STAFF ACTION ITEMS**  
**Presented to the JCC-ZSFG September 24, 2024**  
**September 2024 MEC Meetings**

**Clinical Service Rules and Regulations**

- Laboratory Medicine & Regulations (summary of changes)
- Laboratory Medicine Rules & Regulations (with tracked changes)
- Laboratory Medicine Rules & Regulations (clean version)

**Credentials Committee**

- Delineation of Privileges Lists and Summary of Changes: None



Department of Public Health

London Breed  
Mayor

Mary P. Mercer, MD  
Chief of Staff

Medical Executive Committee (MEC)  
Summary of Changes

<b>Document Name:</b>	<i>ZSFG Clinical Service Rules and Regulations Barbara Haller, MD, PhD</i>
<b>Clinical Service :</b>	<i>Laboratory Medicine Service</i>
<b>Date of last approval:</b>	<i>9/2022</i>
<b>Summary of R&amp;R updates:</b>	
<b>Update #1:</b>	Edit Table of Contents
<b>Update #2:</b>	Replace “unusual occurrence” report with “SAFE” report
<b>Update #3:</b>	Update Appendix II Laboratory Medicine Service Organization Chart and update Laboratory Medicine Service Resident’s Packet, Attachment B
<b>Update #4:</b>	Change ‘UCSF’s Associate Dean” to “UCSF’s Vice Dean” Change “Division Chief” to “Division Director” Change “Senior Supervising Clinical Laboratory Scientist” to “Clinical Laboratory Scientist Manager”
<b>Update #5:</b>	Formatting changes in Laboratory Medicine Privileges (no change in content)

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Clinical Laboratory – Barbara Haller, MD, PhD, Director

**LABORATORY MEDICINE  
SERVICE RULES AND REGULATIONS**  
**~~2022~~2024**

**LABORATORY MEDICINE SERVICE  
RULES AND REGULATIONS**

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## I. LABORATORY MEDICINE SERVICE ORGANIZATION

### A. Scope of Services

The University of California Clinical Laboratory at Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) (“Clinical Laboratory” or “Laboratory Medicine Service”) performs more than five hundred varieties of diagnostic laboratory procedures on blood body fluids and tissues, providing routine and emergency (stat) services 24 hours daily, including weekends and holidays. The department has over 150 full- and part-time employees, including physicians, Clinical Laboratory Scientists, specialists and other professional support personnel. Provided services include, but are not limited to the following:

1. Limited phlebotomy services for ZSFG outpatients.
2. Chemical analysis of clinical specimens (routine and special) and clinical consultation.
3. Toxicology testing and clinical consultation.
4. Hematology (routine and special), coagulation studies, urinalysis and clinical consultation.
5. Microbiology studies – including bacteriology, mycobacteriology, mycology, virology, parasitology and molecular diagnostics - and clinical consultation.
6. Immunology and serology testing and clinical consultation.
7. Transfusion services, blood product utilization monitoring and clinical consultation.
8. Point-of-care testing (POCT): training of lead POCT personnel, coordination, oversight and maintenance of interdepartmental programs for POCT at ZSFG, including inpatient wards, designated outpatient clinics, Operating Room, Cardiac Catheterization Laboratory, Interventional Radiology Suite, Nursery and Intensive Care Units. Services include consultation, method development, assay validation and verification, coordination of quality control, performance improvement and patient safety, utilization management programs, and related activities. The Laboratory does not oversee POCT programs at off-campus sites, i.e., San Francisco Department of Public Health (SFDPH) health centers and affiliated clinics but offers consultative services on POCT issues to these facilities if requested.
9. Laboratory reports: electronic reports generated by the Laboratory Information System (Clinisys Inc, Tucson, AZ) are transmitted to the electronic medical record  
— (EMR) maintained by the San Francisco Department of Public Health. Limited printed cumulative and interim reports for laboratory clients without reliable access to the electronic medical record system are available.
10. Support services, including maintenance of phlebotomy supplies for designated inpatient and outpatient sites, special supplies, sterilization of medical supplies and disinfection of biohazardous waste.
11. Maintenance of an online Laboratory Manual, accessible at <https://www.testmenu.com/zsfglab/>, that provides in-depth information on tests and services provided, specimen requirements, laboratory contacts and other helpful information for Laboratory clients.



#### *Age-Specific Specimen and Collection Techniques*

Laboratory tests are performed and interpreted for patients of all ages, as requested by the clinical care provider or other authorized personnel. Phlebotomy is performed only in the outpatient setting and is generally limited to adults and some pediatric patients in their teens. Blood collection techniques may vary according to the age of the patient and/or the ease of obtaining the specimen, as assessed by the phlebotomist.

#### *Patient/Client Needs Assessment*

Our clients include patients and health care providers at ZSFG, LHH, city jails and outpatient health centers and clinics operated by or affiliated with the SFDPH. Modification of existing services or provision of new services is based on suggestions or requests from clinical services, results from periodic client satisfaction surveys, new availability of tests, in response to problems uncovered by ~~SAFE~~ *unusual occurrence* reports or informal complaints, and the availability of funding and other required resources.

#### *Staffing Plan*

Each Division within the Clinical Laboratory maintains a standard staffing level based on the type and volume of tests requested. Staffing is flexible in order to accommodate changes in the test workload, clinical practice patterns, patient mix, or other factors.

#### *Standards of Practice*

The Clinical Laboratory at ZSFG strives to serve as a model of excellence for clinical laboratories in urban teaching hospitals, by providing accurate, timely, appropriate and cost-effective laboratory services of the highest quality, in support of the mission of SFDPH and ZSFG.

The Laboratory follows the guidelines and standards established by state and federal law and by recognized agencies such as The Joint Commission (TJC), Clinical and Laboratory Standards Institute (CLSI, formerly known as the National Committee for Clinical Laboratory Standards, or NCCLS), and other professional organizations. ZSFG, through the Laboratory Medicine Service, maintains Associate Active Membership in the Clinical and Laboratory Standards Institute (CLSI). This allows the laboratory director and other members of this department to participate directly in the standards-setting processes of this internationally recognized organization.

#### *Reference Laboratories*

Reference laboratories used by the Laboratory Medicine Service at ZSFG include the following:

- a. ARUP (Salt Lake City, Utah), one of the nation's leading reference laboratories under contract to perform the bulk of reference laboratory work for ZSFG
- b. UCSF Clinical Laboratories at Moffitt-Long Hospital, Mission Bay, and China Basin

- c. Laboratories of the San Francisco Department of Public Health and other governmental (City and county, state and federal) laboratories
- d. Other reference laboratories as required for special tests and procedures

ZSFG Clinical Laboratory is responsible for assuring the quality of work provided by the laboratories to which it refers specimens for testing. Clinical Staff can recommend to the Laboratory Director alternative reference laboratories based on clinical need. The Laboratory Director will evaluate and approve Clinical Staff recommendation if indicated.

B. Organization of the Laboratory Medicine Service

See [Appendix II – Laboratory Medicine Service Organization Chart](#)

Commented [HB1]: Updated Organizational Cahrt

## II. APPOINTMENTS AND REAPPOINTMENTS

### A. Medical Staff Membership Requirements

Membership to the medical staff of Zuckerberg San Francisco General is a privilege which shall be extended only to those practitioners who are professionally competent and continually meet the qualifications, standards, and requirements set forth in ZSFG Medical Staff Bylaws, Article II, Rules and Regulations and these Clinical Service Rules and Regulations.

### B. Staff Categories

Medical staff members on the Laboratory Medicine Service fall into the same two categories, i.e., active and courtesy as described in Article III – Categories of the Medical Staff of the ZSFG Bylaws, Rules and Regulations

### C. Process for Appointments and Reappointments

The application process for new appointments and reappointments of Laboratory Medicine practitioners to the ZSFG Medical Staff follows ZSFG Bylaws, Rules and Regulations, and these Clinical Service Rules and Regulations.

Reappointment is dependent on continuing demonstration of professional conduct and competence. Laboratory Medicine will assist the hospital in this responsibility through ongoing professional performance evaluation of its practitioners (OPPE, see below) and summary evaluations by the Chief and Acting Chief of Service.

### D. Affiliated Professionals

The process of appointment and reappointment to the Affiliated Professionals of ZSFG through the Laboratory Medicine Service is in accordance with ZSFG Bylaws and Rules and Regulations, as well as these Clinical Service Rules and Regulations.

## III. CLINICAL PRIVILEGES

**A. Development of Privilege Criteria**

Laboratory Medicine Service privileges are developed in accordance with ZSFG Medical Staff Bylaws, Article V: Clinical Privileges. All requests for clinical privileges will be evaluated and approved by the Chief of Laboratory Medicine. Refer to Appendix I.

**B. Review of Privilege Request Form**

The Laboratory Medicine Services Privilege Request Form shall be reviewed at least every other year..

**C. Change, Addition or Removal of Clinical Privileges**

Laboratory Medicine Service privileges shall be authorized in accordance with the ZSFG Medical Staff Bylaws, Article V: Clinical Privileges. All requests for clinical privileges will be evaluated and approved by the Chief of the Laboratory Medicine Service (synonymous with “Director of the Clinical Laboratory”).

**D. Temporary, Visiting, Emergency or Disaster Privileges**

Privileges in these categories shall be authorized in accordance with the ZSFG Medical Staff Bylaws.

**IV. PROCTORING AND MONITORING**

**A. Requirements and Responsibility**

Proctoring of newly appointed practitioners and practitioners who acquired new privileges, as well as ongoing monitoring of professional performance of practitioners on the Laboratory Medicine Service shall be in accordance with ZSFG Bylaws, and these service rules and regulations. The Laboratory Medicine Service will assist the medical staff office and credentials committee by proposing relevant indicators, evaluate practitioners and provide evaluations and summary reports, including engaging appropriate evaluators from outside the service, as necessary and required. It is the responsibility of the Chief of Service that proctoring and monitoring requirements are met.

**B. Ongoing Professional Performance Evaluation (OPPE)**

The Laboratory Medicine Service monitors the professional performance of its practitioners on an ongoing basis using a set of indicators that are developed by the service and approved by the Credentials Committee.

The Chief or Acting Chief of Service will evaluate performance profiles of Lab Medicine practitioners at least once per year and at the time of reappointment.

**V. EDUCATION AND RESEARCH**

The Laboratory Medicine Service at ZSFG actively participates in and promotes UCSF's academic mission in medical education and research. Graduate and undergraduate medical education and research is conducted in accordance with applicable UCSF and ZSFG administrative policies and procedures and ZSFG Medical Staff Bylaws. The Laboratory Director is accountable to the UCSF's ~~Vice Associate~~ Dean at ZSFG and the Chair of Laboratory Medicine for establishment, supervision, periodic review, and, if necessary, corrective actions of educational and research programs within the Clinical Laboratory.

The Laboratory Medicine Service also actively supports professional staff training and education through offering a Clinical Laboratory Scientist (CLS) student internship program in partnership with San Francisco State University, and by maintaining a Continuing Education Program, administered by the Department's Continuing Education Committee under the general direction of the Laboratory Director. This program is approved for State of California Continuing Education credits as authorized by the Continuing Education Accreditation Agency of the UCSF Clinical Laboratory at Zuckerberg San Francisco General, for which the Laboratory Director serves as Administrator.

All faculty and staff are encouraged to maintain and enhance their professional skills by attendance at professional meetings and participation in appropriate educational conferences, seminars and courses.

## VI. LABORATORY MEDICINE SERVICE RESIDENT TRAINING PROGRAM AND SUPERVISION

Attending faculty shall supervise house staff in such a way that Housestaff assume progressively increasing responsibility for patient care according to their level of training, ability and experience (Refer to CHN Website for Housestaff Competencies). Before starting their rotation residents will be oriented to the Laboratory Medicine Service, provided with a packet of relevant documents including Laboratory Safety Guidelines, and will attest to receipt of these materials (Attachment B: Lab Med Service Resident's Packet)

Commented [HB2]: Updated Resident Packet

### A. Description

There are 2-3 Laboratory Medicine Residents assigned at all times to individual rotations within the Laboratory Medicine Services at ZSFG. These rotations are in the Microbiology, Clinical Chemistry/Toxicology, and Hematology/Blood Bank Divisions of the Clinical Laboratory.

### B. Resident Duties

Resident duties differ on each of the rotations but fall into 3 major categories: test approval, test interpretation, and clinical consultation. Detailed information on resident duties for each of the rotations, guidelines for prospective and retrospective review of blood product usage, the recommended management of issues commonly encountered outside of routine working hours, including when to notify attending faculty, are maintained by the Laboratory Medicine Service, reviewed annually and updated as necessary. Orientation and Learning material for Laboratory Medicine Residents is maintained within each laboratory division and reviewed by Division ~~Directors~~ ~~Chiefs~~ and Leadership staff as needed. (~~Attachment C: ZSFG Laboratory Medicine Rotations~~)

### C. Resident Supervision

Laboratory Medicine (also referred to as Clinical Pathology) residency training is a three year postgraduate program (for Laboratory Medicine only) or two years of a four year combined residency training program in Anatomic Pathology/Clinical Pathology (AP/CP). The UCSF combined AP/CP residency training program or the straight Laboratory Medicine residency training program has flexibility, such that resident competencies and skills are not correlative with year of training. Resident competencies and skills are instead related to type of clinical rotation completed. For example, a resident in his/her final year (4<sup>th</sup>) year of training may be taking a Clinical Microbiology rotation for the very first time in his/her training. In contrast, another resident may have already completed such a rotation in his/her first year of training.

Laboratory Medicine residency training at ZSFG consists of three core rotations – Microbiology, Chemistry/Toxicology, and Hematology/Blood Bank/Cell Therapy. Microbiology and Chemistry/Toxicology rotations each last two months, the Hematology/Blood Bank rotation lasts one month. Elective rotations are offered in Toxicology and Consultative Hematology / Transfusion Medicine. Each rotation is supervised by the **Director/Chief** of the respective Clinical Laboratory Division. The Laboratory Director serves as **T**raini**n**g **S**ite **C**oordinator, ensuring orientation of residents at the beginning of the rotation, appropriate handling and resolution of residency-related issues and maintenance of materials and environment for effective education and learning.

Each resident assigned to a rotation in the Clinical Laboratory is closely supervised by the responsible Division **Director/Chief** during the regular work day. Clinical responsibilities typically consist of test approvals, test interpretations, and clinical consultations. All of these resident functions have direct impact on patient care, as residents make decisions about requests for esoteric testing, interpret laboratory results for diagnostic or therapeutic decisions, and recommend testing strategies for optimum patient management. Initially, all issues and concerns are discussed with and supervised by the respective Division **Director/Chief** at least daily. The resident assumes more responsibility and independence later in the rotation when s/he has become familiar with the issues unique to each division, is knowledgeable about the policies governing these issues, and the Division **Director/Chief** has developed confidence in his/her clinical judgment.

Laboratory Medicine residents also participate in a variety of clinical conferences (e.g., Medicine's Morbidity and Mortality report, Infectious Diseases conference, Cardiology conference, Endocrinology Conference, Poison Control rounds, etc.). These conferences provide a feedback mechanism by which the residents (and respective Division **Director/Chief**) can witness the impact of their decisions. These conferences also provide a feedback mechanism for the Clinical Service in general, in which existing Laboratory Medicine policies can be discussed and modified, if necessary.

In addition to their daily duties, each Laboratory Medicine Service Resident takes call for all Clinical Laboratory Services at the 5 UCSF teaching hospitals (UCSFMC, Mission Bay, Mt. Zion, ZSFG, VAMC) on a rotating basis to provide consultation on laboratory-related issues, approve unusual laboratory tests requests and handle transfusion-related problems arriving outside of routine hours (Mon-Fri 5PM – 8AM, Weekends and Holidays). Faculty members provide backup at all times by long range beepers and/or

telephone. Disagreements between a clinical service and the Laboratory Medicine Resident are resolved by the faculty member responsible for the service. All situations handled by residents while on-call are logged and reviewed and critiqued weekly via internet video conferencing by Clinical Laboratory faculty from all UCSF teaching sites.

Laboratory Medicine residents do not perform invasive procedures, with the exception of bone marrow aspirates / biopsies which would be performed under direct supervision of a Clinical Hematology Fellow or Attending. Some of their duties regarding test utilization or clinical consultation, however, can have serious impact on the acute clinical management and course of the patient (i.e., blood product use, antimicrobial susceptibility test interpretation, etc.). All major decisions having clinical impact are either discussed immediately or reviewed regularly by the responsible Division [Director/Chief](#).

#### **D. Resident Evaluation**

ZSFG Laboratory Medicine residents are evaluated daily by the responsible Division [Director/Chief](#) and by all faculty and the Chief of the Service weekly as to their performance while “on-call” (Friday morning conference). Residents are given constant informal feedback on their performance as well as recommendations for improvement, if necessary.

Residents are given a formal in-person evaluation halfway through their rotation, with concrete recommendations for improving their performance if necessary. Residents are formally evaluated at the end of their rotation by the responsible Division [Director/Chief](#). The evaluation is discussed and the discussion documented by checking the appropriate box on the online evaluation form (MedHub).

The UCSF Laboratory Medicine Residency Program Director reviews all final evaluations. Copies of all evaluations are available through the Laboratory Medicine Residency Program Director or the Residency Program Coordinator (contact information: phone: 415-353-7359, 185 Berry Street 1036, Suite 100, University of California, San Francisco, San Francisco, CA. 94143 – 0506).

The Director of the Laboratory Medicine Residency Training Program meets with each resident twice annually to review performance, discuss evaluations, and address concerns.

#### **E. Ability to Write Patient Orders**

ZSFG Laboratory Medicine residents do not independently write patient orders.

### **VII. CLINICAL LABORATORY FELLOWSHIP PROGRAMS**

In addition to training Laboratory Medicine Residents, the Clinical Laboratory offers accredited postdoctorate fellowship education in Clinical Chemistry/Toxicology. Curriculum development, orientation, supervision and evaluation of fellows is the responsibility of the faculty member

overseeing the respective programs, observing UCSF and ZSFG administrative policies and ZSFG Medical Staff Bylaws Rules and Regulations.

#### **VIII. LABORATORY MEDICINE SERVICE CONSULTATION CRITERIA**

Formal or informal professional consultation will be provided upon request for a member of the Medical Staff, professional or administrative personnel of the SFDPH, or other clients of the Laboratory Medicine Service. Such consultations will be provided by Laboratory Medicine residents, fellows, faculty or Clinical Laboratory Scientists, as appropriate. A consultation may also be initiated by the Laboratory Medicine Service if a potential problem is discovered that may adversely affect patient care.

#### **IX. DISCIPLINARY ACTION**

The Zuckerberg San Francisco General Medical Staff Bylaws, Rules and Regulations will govern all disciplinary action involving members of the ZSFG Laboratory Medicine Service.

#### **X. LABORATORY MEDICINE PERFORMANCE IMPROVEMENT/PATIENT SAFETY (PIPS) AND UTILIZATION MANAGEMENT**

##### **A. Goals, Objectives**

It is the mission of Zuckerberg San Francisco General Clinical Laboratory to:

- Provide accurate, timely, efficient, cost-effective and high quality laboratory services in a safe and supportive work environment.
- Further the UCSF/ZSFG academic missions of research, education, patient care and public service.

The department conducts periodic surveys to assess staff and client satisfaction and to identify new or changed needs for tests or services. The term “client” is used broadly and includes health care providers, patients (inpatients, outpatients, and those within the primary care network), hospital employees and others who interact with the Clinical Laboratory. The department also provides continuing education to housestaff on a regular basis regarding testing procedures, interpretation and optimal utilization of clinical laboratory services.

##### **B. Responsibility**

The Director of the Clinical Laboratory has overall responsibility for the departmental quality management program which includes performance improvement and patient safety activities.

The Director and/or designated representative of the Department of Laboratory Medicine attends meetings of the ZSFG Performance Improvement/Patient Safety Committee and participates in the activities of other ZSFG committees as appropriate, in order to

promote the performance improvement and patient safety goals of the department and of the hospital.

The Laboratory Administrator maintains, coordinates, and distributes documents relating to performance improvement and patient safety activities, assures compliance with all laws, rules and regulations, and is responsible for related administrative functions. The Laboratory Administrator maintains an index of all policies and procedures pertinent to the Performance Improvement and Patient Safety process, as well as minutes of relevant staff meetings and committee meetings.

Division ~~Directors~~~~Chiefs~~ and ~~Senior Supervising~~ Clinical Laboratory Scientists ~~Managers~~ within each division, as well as other personnel designated, are responsible for the identification of performance improvement and patient safety issues and the implementation and maintenance of performance improvement and patient safety activities within their areas of expertise and supervision, including the biennial review and update of policies and procedures.

**C. Reporting**

The Director of the Clinical Laboratory or designated representative provides an annual report to the ZSFG Performance Improvement/Patient Safety and a biennial report to the Medical Executive Committees.

**D. Clinical Indicators and Components of the Laboratory Medicine Quality Management Plan**

The following procedures will be utilized for the evaluation and review of quality and appropriateness of the activities of this department.

1. Quality control results for each test method.
2. Periodic review and update of procedures and policies for special handling, test methods and reports.
3. Quarterly review of reference lab testing for quality and client services at the monthly Clinical Lab leadership meeting.
4. Participation in:
  - a. Proficiency testing programs of the College of American Pathologists and/or other providers as appropriate, e.g., the Centers for Disease Control and Prevention, the State of California, and commercial suppliers.
  - b. Other quality improvement programs as appropriate, for example Q-Tracks/Q-Probes programs of the College of American Pathologists.
  - c. Biennial accreditation surveys by The Joint Commission.
5. Case reviews by faculty and house staff of the Laboratory Medicine Service.



6. A variety of pre-analytical and post-analytical test variables specific to each testing discipline that have major impact on patient care (e.g., turnaround testing times for key 'stat' tests, relay of critical test results to clinical care providers, specimen rejection rate, readiness and transport time for blood products, etc.)
7. Regular performance evaluations will be conducted for employees, house staff and faculty according to UCSF and ZSFG policies and procedures, as applicable.

**E. Monitoring & Evaluation of Appropriateness of Patient Care Services and Response to ~~SAFE~~ Unusual Occurrence Reports**

The Director of the Clinical Laboratory will conduct an annual review and approval of the Quality Management (Performance Improvement / Patient Safety) Plan and of the professional practices of the department to assure that they are appropriate and consistent with the plan.

~~SAFE~~ Unusual Occurrence Reports (UOs), complaints, or issues are investigated and reported in writing as soon as possible. The Director reviews each such incident and a response is forwarded, when appropriate, to the ZSFG Quality Management Office, other appropriate hospital committee, authority, and/or the complaining party.

~~Summaries of SAFE~~ UO Summary reports shall be reviewed at regular meetings of the Clinical Laboratory Leadership to identify ~~events~~ UOs that require focused additional review. As issues, patterns and trends are identified, further assessment will be performed to determine the cause and extent of specific problems. The procedures to be followed may include audits of patient charts, pilot studies, research protocols, and interviews with clinical staff.

Corrective action may include any of the following, as appropriate:

1. In-service education and training programs for staff, house staff and faculty members.
2. Counseling and proctoring.
3. Staffing changes.
4. Changes in procedures or policies.
5. Changes of reagents and/or equipment.

Appropriate utilization of Clinical Laboratory services by the clinical staff will be promoted by formal and informal interaction between Laboratory Medicine faculty and house staff and members of the clinical departments at departmental rounds, house staff conferences, student lectures and seminars, and individual consultations.

**XI. MEETING REQUIREMENTS**

In accordance with ZSFG Medical Staff Bylaws, all Active Members are expected to show good faith participation in the governance and quality evaluation process of the Medical Staff by attending a minimum of 50% of all committee meetings assigned, clinical service meetings, including weekly call conferences and the annual Medical Staff Meeting. ZSFG Clinical Laboratory faculty who are not physicians are expected to meet the same attendance requirements as medical staff members, with the exception of attendance at the Annual Medical Staff Meeting. For faculty members with part time clinical appointments the expectation for attendance at meetings is reduced in proportion to their appointment. The leadership of the Laboratory Medicine Service shall meet as frequently as necessary, usually monthly, but at least quarterly to consider findings from ongoing monitoring and evaluation of the quality and appropriateness of the care and treatment provided to patients.

As defined in the ZSFG Medical Staff Bylaws, a quorum is constituted by at least three (3) voting members of the Active Staff for the purpose of conducting business. In accordance with the Bylaws, the Laboratory Medicine Service Chief may extend voting rights to non-medical staff members. This will be documented in committee minutes at the beginning of the Medical Staff year and shall remain in effect for one year.

**XII. ADOPTION, REVIEW AND AMENDMENT**

Adoption of these Laboratory Medicine Service Rules and Regulations, as well as any revisions or amendments require a majority vote of all active medical staff members and faculty of the Laboratory Medicine Service Department at ZSFG. The Service Chief will conduct a review of these Rules and Regulations at least every other year and propose revisions and amendments to the voting members of the Department.

**XIII. REVISION HISTORY**

Description:	Supervisor Signoff By:	Signoff Date:
Changed review cycle from “annual” to “at least biannual” in sections III B. (Review of Privilege Request Form) and XII (Adoption, Review and Amendment). Clarified the review and voting process on revisions and amendments of these service rules and regulations in section XII.	E. Fiebig	9/25/2012
Placed in new format. Updated Lab Medicine Service Org Chart. Update references to SFGH LMR Rotation Guidelines (attachments)	E. Fiebig	6/21/2013
Updated Lab Medicine Service Org Chart (Core Lab) Deleted reference to “Community Health Network, CHN” in Clin Lab Director’s Job Description Update Attachment B, Resident’s Packet Omit reference to Fellowship education in Public Health Microbiology, section VII.	B. Haller	9/1/2016

Laboratory Medicine Service Rules and Regulations 2024

Changed all SFGH to ZSFG Updated Org Chart	B. Haller	9/11/2018
Changed all references to LCR to electronic medical record (EMR) Changed evaluate to MedHub (for resident and student evaluations) Changed annual report to MEC to biannual report	B. Haller	5/14/2019
Laboratory Director will recommend annually reference laboratories to the Medical Executive Committee – Changed to the following statement which meets Joint Commission Standards:  Clinical Staff can recommend to the Laboratory Director alternative reference laboratories based on clinical need. The Laboratory Director will evaluate and approve Clinical Staff recommendation if indicated.	B. Haller	9/10/2020
Change biannual to “biennial” or “every other year”. Minor formatting and grammar changes.	B. Haller	9/10/2020
Updated location of Laboratory On-Line Manual - <a href="https://www.testmenu.com/zsfglab/">https://www.testmenu.com/zsfglab/</a> Updated Org Chart	B. Haller	9/10/2020
Removed Attachment D. ZSFG Laboratory Resident Survival Manual. To be updated and rewritten to include new test methodologies and testing strategies at ZSFG Clinical Laboratory.	B. Haller	9/10/2020
Updated Company name for Lab Information System	B. Haller	9/12/2022
Updated Appendix II, Laboratory Medicine service Organization Chart	B. Haller	9/12/2022
Changed Chief of Service evaluation of Medical Staff will be once per year instead of every 6 months	B. Haller	9/12/2022
Updated Resident Packet received at Orientation to Rotations	B. Haller	9/12/2022
Omit Attachment C. Add text to R+R stating that Orientation and Learning Material is maintained in each Resident rotation site in the Lab.	B. Haller	9/12/2022
<a href="#">Edit Table of Contents</a>	<a href="#">B. Haller</a>	<a href="#">9/1/2024</a>
<a href="#">Replace “unusual occurrence” reports with “SAFE” reports</a>	<a href="#">B. Haller</a>	<a href="#">9/1/2024</a>

Laboratory Medicine Service Rules and Regulations 2024<sup>42</sup>

<u>Update Appendix II. Organization Chart and Attachment B. Laboratory Medicine Resident's Packet</u>	<u>B. Haller</u>	<u>9/1/2024</u>
<u>Change UCSF's "Associate" Dean to UCSF's "Vice" Dean</u>	<u>B. Haller</u>	<u>9/1/2024</u>
<u>Change Division "Chief" to Division "Director"</u>	<u>B. Haller</u>	<u>9/1/2024</u>
<u>Change "Senior Supervising" Clinical Laboratory Scientists to Clinical Laboratory Scientist "Managers"</u>	<u>B. Haller</u>	<u>9/1/2024</u>
<u>Formatting of Laboratory Medicine Privileges (no change in content)</u>	<u>B. Haller</u>	<u>9/1/2024</u>

**XIV. APPENDIX I – LABORATORY MEDICINE PRIVILEGES**

Privileges for Zuckerberg San Francisco General

Applicant: Please initial the privileges you are requesting in the Requested column.

Service Chief: Please initial the privileges you are approving in the Approved column.

FOR ALL PRIVILEGES: All complication rates, problem transfusions, deaths, unusual occurrence reports, patient complaints and sentinel events, as well as any specific Department quality indicators, are monitored semiannually.

Requested                  Approved

**16 LABORATORY MEDICINE**

\_\_\_\_\_                  \_\_\_\_\_ **16.10**

**CATEGORY I – CORE PRIVILEGES**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pathology in Clinical Pathology or Anatomic & Clinical Pathology. Patient care responsibilities encompass supervision and direction of the specimen collection, selection of laboratory procedures appropriate for patient care, analysis, reporting and interpretation of results of diagnostic tests, including recommendations for patient management based on these results in Blood Banking /Transfusion Medicine/Immunohematology, Clinical Chemistry, Toxicology, Hematology, Immunology, Microbiology/Virology, Molecular Diagnostics, Medical Informatics and Laboratory Management.

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Case Discussions at weekly Lab Med Service Conferences.
- 3) 6-month review of QC oversight documentation (incl. proficiency testing and quality test management)

**REAPPOINTMENT:** Renewal of privileges requires every 2 ~~years:~~

years:

- 1) review of a minimum of 5 Case Discussions at weekly Lab Med Service Conferences
- 2) review of QC oversight documentation during the evaluation period

\_\_\_\_\_                  \_\_\_\_\_ **16.11**

**BONE MARROW INTERPRETATION**

Review and analysis of bone marrow aspirate and biopsy material for diagnosis or monitoring of conditions affecting the hematopoietic system.

**PREREQUISITES:** Currently Board Admissible, Board ~~Certified, or Re-Certified by the American Board of Pathology in Clinical and/or Anatomic Pathology and Hematopathology. Certified, or Re-Certified by the American Board of~~

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~~Pathology in Clinical and/or Anatomic Pathology and Hematopathology.~~

**PROCTORING:**

1) 6 months by the Chief of the Laboratory Medicine Service or Designee.

2) Review of 10 Cases by the Anatomic Pathology Service

**REAPPOINTMENT:** Renewal of privileges requires the review of a minimum of 3 cases by the Anatomic Pathology Service every 2 years.

16.20

**CATEGORY II – SPECIFIC PRIVILEGES**

Individuals who do not qualify for core privileges covering all aspects of laboratory medicine may indicate their specific areas of privileging from the list of subspecialties below. Patient care responsibilities within the specific area for which privileges are requested are the same as outlined above for core privileges in Laboratory Medicine.

16.21

**IMMUNOHEMATOLOGY**  
~~IMMUNOHEMATOLOGY~~

**BLOOD BANKING, TRANSFUSION MEDICINE,**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Medicine, Pediatrics, Obstetrics/Gynecology, General Surgery, or Anesthesia and Blood Banking/Transfusion Medicine.  
~~Certified, or Re-Certified by an American Board in Medicine, Pediatrics, Obstetrics/Gynecology, General Surgery or Anesthesia and Blood Banking / Transfusion Medicine.~~

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**PROCTORING:**

1) 6 months by the Chief of the Laboratory Medicine Service or Designee.

2) Review of 10 Transfusion Reaction Reports

3) Review of 10 Case Discussions at weekly Lab Med Service Conferences

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

1) Review of 5 Transfusion Reaction Reports

2) Review of 5 Case Discussions at weekly Lab Med Service Conferences

3) review of QC oversight documentation during the evaluation period

16.22

**CLINICAL CHEMISTRY, TOXICOLOGY**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Chemical Pathology or Clinical Chemistry, Toxicology

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Serum/Urine Protein Electrophoresis Reports
- 3) Review of 10 Case Discussions at weekly Lab Med Service Conferences
- 4) review of QC oversight documentation during the evaluation period

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Serum/Urine Protein Electrophoresis Reports
- 2) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 3) review of QC oversight documentation during the evaluation period

**16.24 HEMATOLOGY** (excluding Bone Marrow Interpretation)

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Clinical Hematology or Hematopathology. ~~Certified, or Re-Certified by an American Board in Clinical Hematology or Hematopathology.~~

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Blood Smear/Body Fluid Interpretations
- 3) Review of 10 Hemoglobinopathy Interpretations
- 4) Review of 10 Case Discussions at weekly Lab Med Service Conferences

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Blood Smear/Body Fluid Interpretations
- 2) Review of 5 Hemoglobinopathy Interpretations
- 3) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 4) review of QC oversight documentation during the evaluation period

**16.25 MICROBIOLOGY / VIROLOGY**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Medical Microbiology.

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Broncho-Alveolar Lavage Interpretations
- 3) Review of 10 Case Discussions at weekly Lab Med Service Conferences

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Broncho-Alveolar Lavage Interpretations

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- 2) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 3) review of QC oversight documentation during the evaluation period

**Privileges for Zuckerberg San Francisco General**

I hereby request clinical privileges as indicated above.

\_\_\_\_\_  
Applicant

\_\_\_\_\_  
Date

FOR DEPARTMENTAL USE:

\_\_\_\_ Proctor has been assigned for newly granted privileges.

\_\_\_\_ Proctoring requirements have been satisfied.

\_\_\_\_ Medications requiring DEA certification may be prescribed by this provider.

\_\_\_\_ Medications requiring DEA certification will not be provided by this provider.

\_\_\_\_ CPR Certification is required.

\_\_\_\_ CPR Certification is not required.

APPROVED BY:

\_\_\_\_\_  
Division Chief

\_\_\_\_\_  
Date

\_\_\_\_\_

\_\_\_\_\_

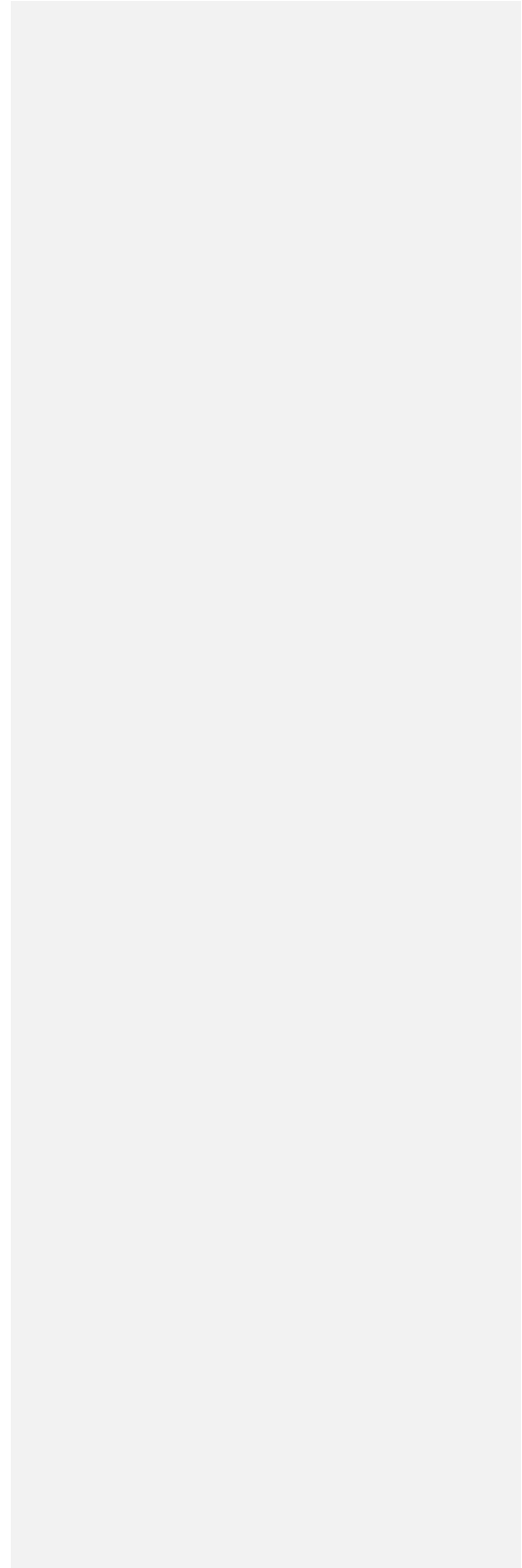


| **Laboratory Medicine Service Rules and Regulations 2024**[42](#)

Service Chief

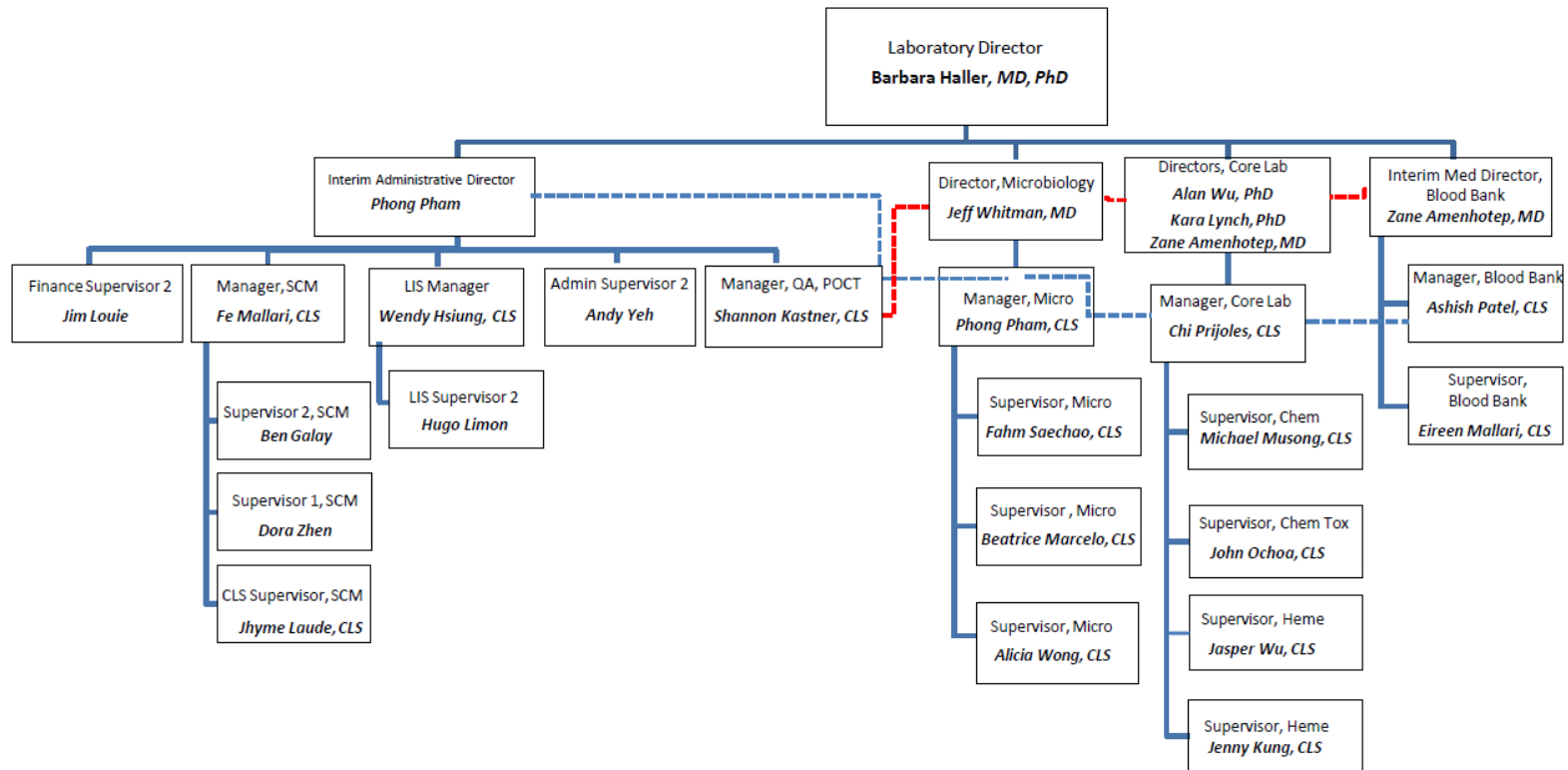
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**XVI. ~~XV.~~ APPENDIX II – LABORATORY MEDICINE SERVICE ORGANIZATION CHART**

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~~XVII.~~ XVI. ATTACHMENT A – CLINICAL SERVICE CHIEF’S JOB DESCRIPTION

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University of California, San Francisco – Department of Laboratory Medicine  
Zuckerberg San Francisco General  
1001 Potrero Avenue, San Francisco CA 94110  
Clinical Laboratory

DIRECTOR OF CLINICAL LABORATORY, ZUCKERBERG SAN FRANCISCO GENERAL

JOB DESCRIPTION:

General:

The Director of the Clinical Laboratory at Zuckerberg San Francisco General is accountable to the Chairman of the UCSF Department of Laboratory Medicine and the Associate Dean of the UCSF School of Medicine at ZSFG. This individual also serves as Chief of the Laboratory Medicine Service at ZSFG and as Vice Chair for the UCSF Department of Laboratory Medicine at ZSFG.

The Director of Clinical Laboratory has overall responsibility for the ZSFG Clinical Laboratory, including direction, planning, implementation and maintenance of all professional and administrative activities, training and educational programs conducted by the Department at ZSFG, as well as any other duties that may be assigned or delegated.

Specific responsibilities include, but are not limited to the following:

Administrative Responsibilities:

- Enforces the Medical Staff Bylaws, Rules and Regulations within the Laboratory Medicine Service.
- Assures compliance with the standards and regulations of the Joint Commission on the Accreditation of Healthcare Organizations, and federal, state and local regulatory agencies.
- Participates in departmental, hospital-wide, and university-wide activities, including staff meetings, committees, and related functions.
- Supervises the development, implementation and maintenance of procedures and policies relevant to departmental responsibilities and activities.
- Assures financial integrity of the department. Directs preparation and justification of annual budgets and assures operation within established budgets.

**Clinical Responsibilities:**

- Assures that the Clinical Laboratory provide accurate, timely and appropriate laboratory testing, efficiently and cost-effectively.
- Coordinates and integrates intradepartmental and interdepartmental services with the primary functions of the San Francisco Health Network.
- Develops effective procedures to promote professional interaction between the Laboratory Medicine Service and patient-care services for improved patient care.
- Assures the development, implementation and maintenance of departmental continuing quality improvement programs.
- Assures that all personnel performing work in or for the ZSFG Clinical Laboratories have the necessary qualifications and competence.
- Keeps current with and implements emerging technologies as necessary.

**Academic Responsibilities:**

- As Vice Chair of the UCSF Department of Laboratory Medicine, supervises academic activities at ZSFG, as authorized or delegated by the Department Chair at UCSF and/or the Associate Dean for ZSFG.
- Assures and provides general supervision for training programs, elective courses and continuing education programs, as appropriate, for house staff assigned to ZSFG, UCSF medical students and technical staff of the ZSFG Clinical Laboratory.
- Promotes opportunities for continuing education and academic activities, where appropriate, for faculty and staff of the Department of Laboratory Medicine at ZSFG.
- Maintains competence and leadership in the field of Laboratory Medicine by participation in programs for continuing medical education, professional organizations and public service activities, as appropriate.

Approved:

\_\_\_\_\_  
Barbara Haller, MD, PhD  
Laboratory Director, UCSF Clinical Laboratory at ZSFG

\_\_\_\_\_  
Date

[Division Chiefs' Job Descriptions are held at Laboratory Medicine Service Office]

~~XVIII.~~ XVII. ATTACHMENT B – RESIDENT’S PACKET

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Laboratory Medicine Service  
Resident’s Packet

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**STATEMENT OF RECEIPT:**

I certify that I have received the Laboratory Medicine Resident’s Packet with the following documents enclosed:

Please check off:

- \_\_\_\_\_ ZSFG Laboratory Safety Guidelines
- \_\_\_\_\_ ZSFG Confidentiality Agreement (Use of DPH Records & Information Systems)
- \_\_\_\_\_ Code of Professional Conduct Policy
- \_\_\_\_\_ On-Call Schedule
- \_\_\_\_\_ Resident’s Weekly Calendar of Conferences

\*\* ZSFG Clinical Laboratory Test Directory is available @ <https://www.testmenu.com/zsfglab>

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please complete this form and return it to Andy Yeh in the Administration Office after review.

~~Laboratory Medicine Service~~  
~~Resident’s Packet~~

**STATEMENT OF RECEIPT:**

I certify that I have received the Laboratory Medicine Resident’s Packet with the following documents enclosed:

Please check off:

- \_\_\_\_\_ ZSFG Laboratory Safety Guidelines
- \_\_\_\_\_ Confidentiality Agreement (Use of DPH Records & Information Systems)

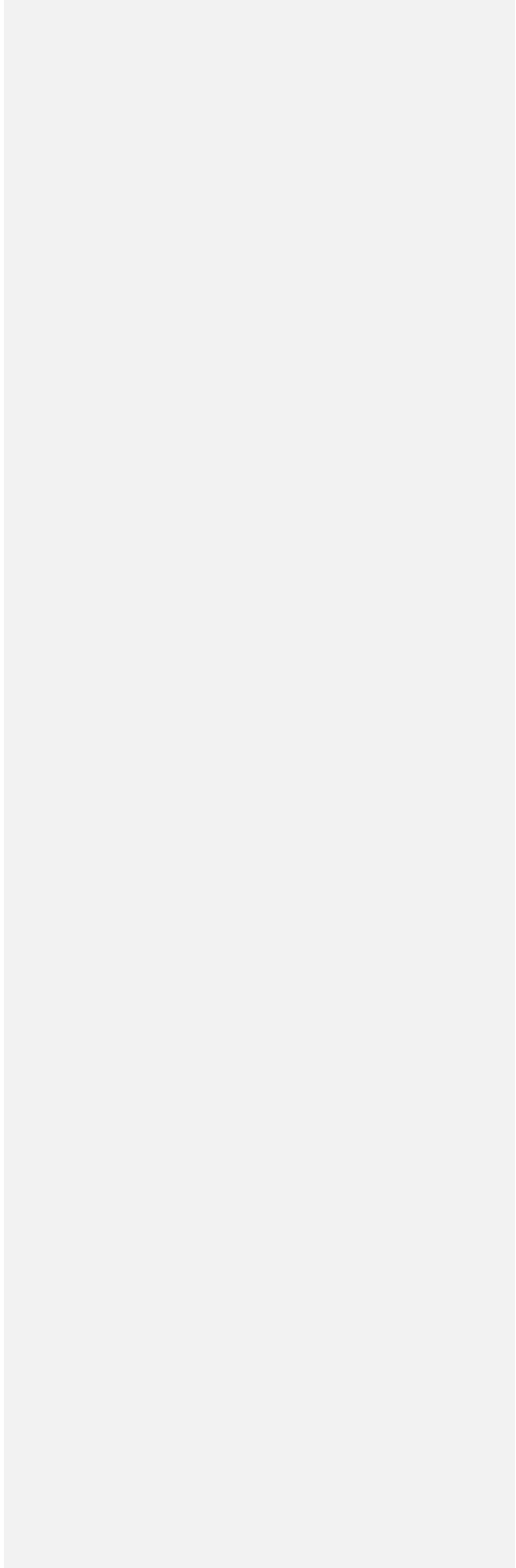
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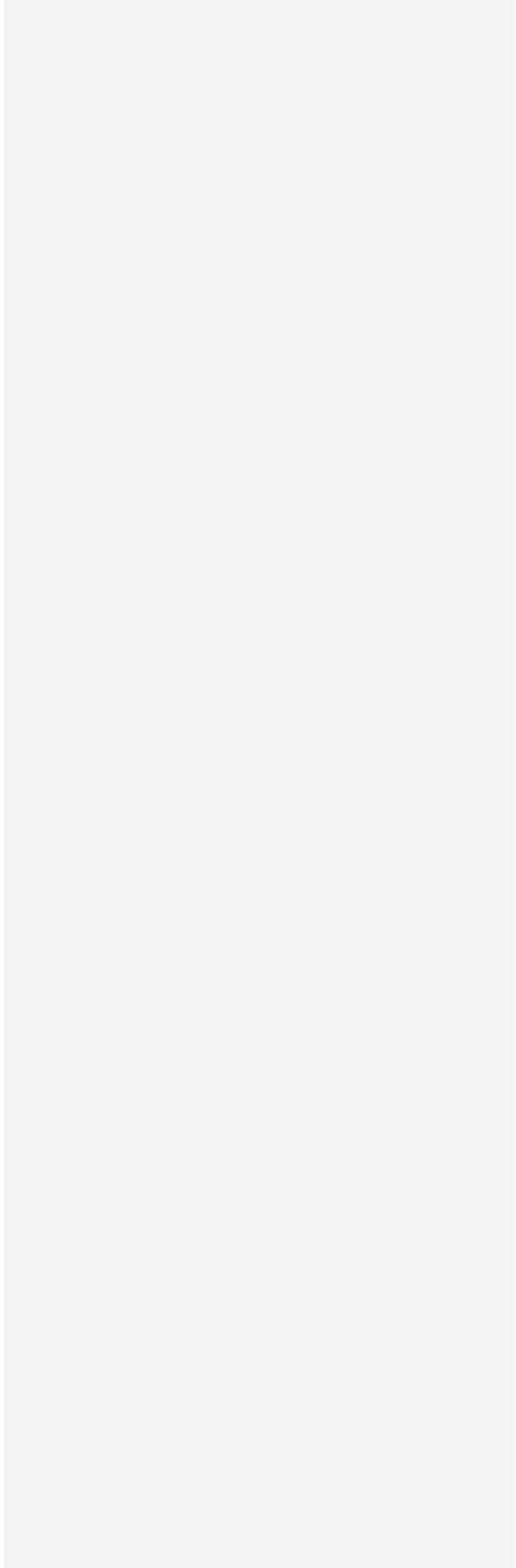
- \_\_\_\_\_ ZSFG Housestaff Orientation Manual \_\_\_\_\_ Code of Professional Conduct Policy
- \_\_\_\_\_ Application for Leave Request Form
- \_\_\_\_\_ On-Call Schedule
- \_\_\_\_\_ Resident's Weekly Calendar of Conferences
- \_\_\_\_\_ Personal Computer Use by ZSFG Laboratory Medicine Residents

\*\* A copy of the Lab Manual is available on the CHN Intranet @ <http://insidechnsf.chnsf.org>  
(left column under Clinical Resources).

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please complete this form and return to Andy Yeh in the Administration Office as soon as possible







University of California, San Francisco – Department of Laboratory Medicine  
Zuckerberg San Francisco General  
1001 Potrero Avenue, San Francisco, CA 94110

Clinical Laboratory – Barbara Haller, MD, PhD, Director

**LABORATORY MEDICINE  
SERVICE RULES AND REGULATIONS  
2024**

**LABORATORY MEDICINE SERVICE  
RULES AND REGULATIONS**

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## I. LABORATORY MEDICINE SERVICE ORGANIZATION

### A. Scope of Services

The University of California Clinical Laboratory at Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) (“Clinical Laboratory” or “Laboratory Medicine Service”) performs more than five hundred varieties of diagnostic laboratory procedures on blood body fluids and tissues, providing routine and emergency (stat) services 24 hours daily, including weekends and holidays. The department has over 150 full- and part-time employees, including physicians, Clinical Laboratory Scientists, specialists and other professional support personnel. Provided services include, but are not limited to the following:

1. Limited phlebotomy services for ZSFG outpatients.
2. Chemical analysis of clinical specimens (routine and special) and clinical consultation.
3. Toxicology testing and clinical consultation.
4. Hematology (routine and special), coagulation studies, urinalysis and clinical consultation.
5. Microbiology studies – including bacteriology, mycobacteriology, mycology, virology, parasitology and molecular diagnostics - and clinical consultation.
6. Immunology and serology testing and clinical consultation.
7. Transfusion services, blood product utilization monitoring and clinical consultation.
8. Point-of-care testing (POCT): training of lead POCT personnel, coordination, oversight and maintenance of interdepartmental programs for POCT at ZSFG, including inpatient wards, designated outpatient clinics, Operating Room, Cardiac Catheterization Laboratory, Interventional Radiology Suite, Nursery and Intensive Care Units. Services include consultation, method development, assay validation and verification, coordination of quality control, performance improvement and patient safety, utilization management programs, and related activities. The Laboratory does not oversee POCT programs at off-campus sites, i.e., San Francisco Department of Public Health (SFDPH) health centers and affiliated clinics but offers consultative services on POCT issues to these facilities if requested.
9. Laboratory reports: electronic reports generated by the Laboratory Information System (Clinisys Inc, Tucson, AZ) are transmitted to the electronic medical record (EMR) maintained by the San Francisco Department of Public Health. Limited printed cumulative and interim reports for laboratory clients without reliable access to the electronic medical record system are available.
10. Support services, including maintenance of phlebotomy supplies for designated inpatient and outpatient sites, special supplies, sterilization of medical supplies and disinfection of biohazardous waste.
11. Maintenance of an online Laboratory Manual, accessible at <https://www.testmenu.com/zsfglab/>, that provides in-depth information on tests and services provided, specimen requirements, laboratory contacts and other helpful information for Laboratory clients.

### *Age-Specific Specimen and Collection Techniques*

Laboratory tests are performed and interpreted for patients of all ages, as requested by the clinical care provider or other authorized personnel. Phlebotomy is performed only in the outpatient setting and is generally limited to adults and some pediatric patients in their teens. Blood collection techniques may vary according to the age of the patient and/or the ease of obtaining the specimen, as assessed by the phlebotomist.

### *Patient/Client Needs Assessment*

Our clients include patients and health care providers at ZSFG, LHH, city jails and outpatient health centers and clinics operated by or affiliated with the SFDPH. Modification of existing services or provision of new services is based on suggestions or requests from clinical services, results from periodic client satisfaction surveys, new availability of tests, in response to problems uncovered by SAFE reports or informal complaints, and the availability of funding and other required resources.

### *Staffing Plan*

Each Division within the Clinical Laboratory maintains a standard staffing level based on the type and volume of tests requested. Staffing is flexible in order to accommodate changes in the test workload, clinical practice patterns, patient mix, or other factors.

### *Standards of Practice*

The Clinical Laboratory at ZSFG strives to serve as a model of excellence for clinical laboratories in urban teaching hospitals, by providing accurate, timely, appropriate and cost-effective laboratory services of the highest quality, in support of the mission of SFDPH and ZSFG.

The Laboratory follows the guidelines and standards established by state and federal law and by recognized agencies such as The Joint Commission (TJC), Clinical and Laboratory Standards Institute (CLSI, formerly known as the National Committee for Clinical Laboratory Standards, or NCCLS), and other professional organizations. ZSFG, through the Laboratory Medicine Service, maintains Associate Active Membership in the Clinical and Laboratory Standards Institute (CLSI). This allows the laboratory director and other members of this department to participate directly in the standards-setting processes of this internationally recognized organization.

### *Reference Laboratories*

Reference laboratories used by the Laboratory Medicine Service at ZSFG include the following:

- a. ARUP (Salt Lake City, Utah), one of the nation's leading reference laboratories under contract to perform the bulk of reference laboratory work for ZSFG
- b. UCSF Clinical Laboratories at Moffitt-Long Hospital, Mission Bay, and China Basin

- c. Laboratories of the San Francisco Department of Public Health and other governmental (City and county, state and federal) laboratories
- d. Other reference laboratories as required for special tests and procedures

ZSFG Clinical Laboratory is responsible for assuring the quality of work provided by the laboratories to which it refers specimens for testing. Clinical Staff can recommend to the Laboratory Director alternative reference laboratories based on clinical need. The Laboratory Director will evaluate and approve Clinical Staff recommendation if indicated.

- B. Organization of the Laboratory Medicine Service  
See Appendix II – Laboratory Medicine Service Organization Chart

## **II. APPOINTMENTS AND REAPPOINTMENTS**

### **A. Medical Staff Membership Requirements**

Membership to the medical staff of Zuckerberg San Francisco General is a privilege which shall be extended only to those practitioners who are professionally competent and continually meet the qualifications, standards, and requirements set forth in ZSFG Medical Staff Bylaws, Article II, Rules and Regulations and these Clinical Service Rules and Regulations.

### **B. Staff Categories**

Medical staff members on the Laboratory Medicine Service fall into the same two categories, i.e., active and courtesy as described in Article III – Categories of the Medical Staff of the ZSFG Bylaws, Rules and Regulations

### **C. Process for Appointments and Reappointments**

The application process for new appointments and reappointments of Laboratory Medicine practitioners to the ZSFG Medical Staff follows ZSFG Bylaws, Rules and Regulations, and these Clinical Service Rules and Regulations.

Reappointment is dependent on continuing demonstration of professional conduct and competence. Laboratory Medicine will assist the hospital in this responsibility through ongoing professional performance evaluation of its practitioners (OPPE, see below) and summary evaluations by the Chief and Acting Chief of Service.

### **D. Affiliated Professionals**

The process of appointment and reappointment to the Affiliated Professionals of ZSFG through the Laboratory Medicine Service is in accordance with ZSFG Bylaws and Rules and Regulations, as well as these Clinical Service Rules and Regulations.

## **III. CLINICAL PRIVILEGES**

**A. Development of Privilege Criteria**

Laboratory Medicine Service privileges are developed in accordance with ZSFG Medical Staff Bylaws, Article V: Clinical Privileges. All requests for clinical privileges will be evaluated and approved by the Chief of Laboratory Medicine. Refer to Appendix I.

**B. Review of Privilege Request Form**

The Laboratory Medicine Services Privilege Request Form shall be reviewed at least every other year..

**C. Change, Addition or Removal of Clinical Privileges**

Laboratory Medicine Service privileges shall be authorized in accordance with the ZSFG Medical Staff Bylaws, Article V: Clinical Privileges. All requests for clinical privileges will be evaluated and approved by the Chief of the Laboratory Medicine Service (synonymous with “Director of the Clinical Laboratory”).

**D. Temporary, Visiting, Emergency or Disaster Privileges**

Privileges in these categories shall be authorized in accordance with the ZSFG Medical Staff Bylaws.

**IV. PROCTORING AND MONITORING**

**A. Requirements and Responsibility**

Proctoring of newly appointed practitioners and practitioners who acquired new privileges, as well as ongoing monitoring of professional performance of practitioners on the Laboratory Medicine Service shall be in accordance with ZSFG Bylaws, and these service rules and regulations. The Laboratory Medicine Service will assist the medical staff office and credentials committee by proposing relevant indicators, evaluate practitioners and provide evaluations and summary reports, including engaging appropriate evaluators from outside the service, as necessary and required. It is the responsibility of the Chief of Service that proctoring and monitoring requirements are met.

**B. Ongoing Professional Performance Evaluation (OPPE)**

The Laboratory Medicine Service monitors the professional performance of its practitioners on an ongoing basis using a set of indicators that are developed by the service and approved by the Credentials Committee.

The Chief or Acting Chief of Service will evaluate performance profiles of Lab Medicine practitioners at least once per year and at the time of reappointment.

**V. EDUCATION AND RESEARCH**

The Laboratory Medicine Service at ZSFG actively participates in and promotes UCSF's academic mission in medical education and research. Graduate and undergraduate medical education and research is conducted in accordance with applicable UCSF and ZSFG administrative policies and procedures and ZSFG Medical Staff Bylaws. The Laboratory Director is accountable to the UCSF's Vice Dean at ZSFG and the Chair of Laboratory Medicine for establishment, supervision, periodic review, and, if necessary, corrective actions of educational and research programs within the Clinical Laboratory.

The Laboratory Medicine Service also actively supports professional staff training and education through offering a Clinical Laboratory Scientist (CLS) student internship program in partnership with San Francisco State University, and by maintaining a Continuing Education Program, administered by the Department's Continuing Education Committee under the general direction of the Laboratory Director. This program is approved for State of California Continuing Education credits as authorized by the Continuing Education Accreditation Agency of the UCSF Clinical Laboratory at Zuckerberg San Francisco General, for which the Laboratory Director serves as Administrator.

All faculty and staff are encouraged to maintain and enhance their professional skills by attendance at professional meetings and participation in appropriate educational conferences, seminars and courses.

## **VI. LABORATORY MEDICINE SERVICE RESIDENT TRAINING PROGRAM AND SUPERVISION**

Attending faculty shall supervise house staff in such a way that Housestaff assume progressively increasing responsibility for patient care according to their level of training, ability and experience (Refer to CHN Website for Housestaff Competencies). Before starting their rotation residents will be oriented to the Laboratory Medicine Service, provided with a packet of relevant documents including Laboratory Safety Guidelines, and will attest to receipt of these materials (Attachment B: Lab Med Service Resident's Packet)

### **A. Description**

There are 2-3 Laboratory Medicine Residents assigned at all times to individual rotations within the Laboratory Medicine Services at ZSFG. These rotations are in the Microbiology, Clinical Chemistry/Toxicology, and Hematology/Blood Bank Divisions of the Clinical Laboratory.

### **B. Resident Duties**

Resident duties differ on each of the rotations but fall into 3 major categories: test approval, test interpretation, and clinical consultation. Detailed information on resident duties for each of the rotations, guidelines for prospective and retrospective review of blood product usage, the recommended management of issues commonly encountered outside of routine working hours, including when to notify attending faculty, are maintained by the Laboratory Medicine Service, reviewed annually and updated as necessary. Orientation and Learning material for Laboratory Medicine Residents is maintained within each laboratory division and reviewed by Division Directors and Leadership staff as needed.

### C. Resident Supervision

Laboratory Medicine (also referred to as Clinical Pathology) residency training is a three year postgraduate program (for Laboratory Medicine only) or two years of a four year combined residency training program in Anatomic Pathology/Clinical Pathology (AP/CP). The UCSF combined AP/CP residency training program or the straight Laboratory Medicine residency training program has flexibility, such that resident competencies and skills are not correlative with year of training. Resident competencies and skills are instead related to type of clinical rotation completed. For example, a resident in his/her final year (4<sup>th</sup>) year of training may be taking a Clinical Microbiology rotation for the very first time in his/her training. In contrast, another resident may have already completed such a rotation in his/her first year of training.

Laboratory Medicine residency training at ZSFG consists of three core rotations – Microbiology, Chemistry/Toxicology, and Hematology/Blood Bank/Cell Therapy. Microbiology and Chemistry/Toxicology rotations each last two months, the Hematology/Blood Bank rotation lasts one month. Elective rotations are offered in Toxicology and Consultative Hematology / Transfusion Medicine. Each rotation is supervised by the Director of the respective Clinical Laboratory Division. The Laboratory Director serves as Training Site Coordinator, ensuring orientation of residents at the beginning of the rotation, appropriate handling and resolution of residency-related issues and maintenance of materials and environment for effective education and learning.

Each resident assigned to a rotation in the Clinical Laboratory is closely supervised by the responsible Division Director during the regular work day. Clinical responsibilities typically consist of test approvals, test interpretations, and clinical consultations. All of these resident functions have direct impact on patient care, as residents make decisions about requests for esoteric testing, interpret laboratory results for diagnostic or therapeutic decisions, and recommend testing strategies for optimum patient management. Initially, all issues and concerns are discussed with and supervised by the respective Division Director at least daily. The resident assumes more responsibility and independence later in the rotation when s/he has become familiar with the issues unique to each division, is knowledgeable about the policies governing these issues, and the Division Director has developed confidence in his/her clinical judgment.

Laboratory Medicine residents also participate in a variety of clinical conferences (e.g., Medicine's Morbidity and Mortality report, Infectious Diseases conference, Cardiology conference, Endocrinology Conference, Poison Control rounds, etc.). These conferences provide a feedback mechanism by which the residents (and respective Division Director) can witness the impact of their decisions. These conferences also provide a feedback mechanism for the Clinical Service in general, in which existing Laboratory Medicine policies can be discussed and modified, if necessary.

In addition to their daily duties, each Laboratory Medicine Service Resident takes call for all Clinical Laboratory Services at the 5 UCSF teaching hospitals (UCSFMC, Mission Bay, Mt. Zion, ZSFG, VAMC) on a rotating basis to provide consultation on laboratory-related issues, approve unusual laboratory tests requests and handle transfusion-related problems arriving outside of routine hours (Mon-Fri 5PM – 8AM, Weekends and Holidays). Faculty members provide backup at all times by long range beepers and/or telephone. Disagreements between a clinical service and the Laboratory Medicine Resident are resolved by the faculty member responsible for the service. All situations



handled by residents while on-call are logged and reviewed and critiqued weekly via internet video conferencing by Clinical Laboratory faculty from all UCSF teaching sites.

Laboratory Medicine residents do not perform invasive procedures, with the exception of bone marrow aspirates / biopsies which would be performed under direct supervision of a Clinical Hematology Fellow or Attending. Some of their duties regarding test utilization or clinical consultation, however, can have serious impact on the acute clinical management and course of the patient (i.e., blood product use, antimicrobial susceptibility test interpretation, etc.). All major decisions having clinical impact are either discussed immediately or reviewed regularly by the responsible Division Director.

**D. Resident Evaluation**

ZSFG Laboratory Medicine residents are evaluated daily by the responsible Division Director and by all faculty and the Chief of the Service weekly as to their performance while “on-call” (Friday morning conference). Residents are given constant informal feedback on their performance as well as recommendations for improvement, if necessary.

Residents are given a formal in-person evaluation halfway through their rotation, with concrete recommendations for improving their performance if necessary. Residents are formally evaluated at the end of their rotation by the responsible Division Director. The evaluation is discussed and the discussion documented by checking the appropriate box on the online evaluation form (MedHub).

The UCSF Laboratory Medicine Residency Program Director reviews all final evaluations. Copies of all evaluations are available through the Laboratory Medicine Residency Program Director or the Residency Program Coordinator (contact information: phone: 415-353-7359, 185 Berry Street 1036, Suite 100, University of California, San Francisco, San Francisco, CA. 94143 – 0506).

The Director of the Laboratory Medicine Residency Training Program meets with each resident twice annually to review performance, discuss evaluations, and address concerns.

**E. Ability to Write Patient Orders**

ZSFG Laboratory Medicine residents do not independently write patient orders.

**VII. CLINICAL LABORATORY FELLOWSHIP PROGRAMS**

In addition to training Laboratory Medicine Residents, the Clinical Laboratory offers accredited postdoctorate fellowship education in Clinical Chemistry/Toxicology. Curriculum development, orientation, supervision and evaluation of fellows is the responsibility of the faculty member overseeing the respective programs, observing UCSF and ZSFG administrative policies and ZSFG Medical Staff Bylaws Rules and Regulations.

## **VIII. LABORATORY MEDICINE SERVICE CONSULTATION CRITERIA**

Formal or informal professional consultation will be provided upon request for a member of the Medical Staff, professional or administrative personnel of the SFDPH, or other clients of the Laboratory Medicine Service. Such consultations will be provided by Laboratory Medicine residents, fellows, faculty or Clinical Laboratory Scientists, as appropriate. A consultation may also be initiated by the Laboratory Medicine Service if a potential problem is discovered that may adversely affect patient care.

## **IX. DISCIPLINARY ACTION**

The Zuckerberg San Francisco General Medical Staff Bylaws, Rules and Regulations will govern all disciplinary action involving members of the ZSFG Laboratory Medicine Service.

## **X. LABORATORY MEDICINE PERFORMANCE IMPROVEMENT/PATIENT SAFETY (PIPS) AND UTILIZATION MANAGEMENT**

### **A. Goals, Objectives**

It is the mission of Zuckerberg San Francisco General Clinical Laboratory to:

- Provide accurate, timely, efficient, cost-effective and high quality laboratory services in a safe and supportive work environment.
- Further the UCSF/ZSFG academic missions of research, education, patient care and public service.

The department conducts periodic surveys to assess staff and client satisfaction and to identify new or changed needs for tests or services. The term “client” is used broadly and includes health care providers, patients (inpatients, outpatients, and those within the primary care network), hospital employees and others who interact with the Clinical Laboratory. The department also provides continuing education to housestaff on a regular basis regarding testing procedures, interpretation and optimal utilization of clinical laboratory services.

### **B. Responsibility**

The Director of the Clinical Laboratory has overall responsibility for the departmental quality management program which includes performance improvement and patient safety activities.

The Director and/or designated representative of the Department of Laboratory Medicine attends meetings of the ZSFG Performance Improvement/Patient Safety Committee and participates in the activities of other ZSFG committees as appropriate, in order to promote the performance improvement and patient safety goals of the department and of the hospital.

The Laboratory Administrator maintains, coordinates, and distributes documents relating to performance improvement and patient safety activities, assures compliance with all

laws, rules and regulations, and is responsible for related administrative functions. The Laboratory Administrator maintains an index of all policies and procedures pertinent to the Performance Improvement and Patient Safety process, as well as minutes of relevant staff meetings and committee meetings.

Division Directors and Clinical Laboratory Scientist Managers within each division, as well as other personnel designated, are responsible for the identification of performance improvement and patient safety issues and the implementation and maintenance of performance improvement and patient safety activities within their areas of expertise and supervision, including the biennial review and update of policies and procedures.

**C. Reporting**

The Director of the Clinical Laboratory or designated representative provides an annual report to the ZSFG Performance Improvement/Patient Safety and a biennial report to the Medical Executive Committees.

**D. Clinical Indicators and Components of the Laboratory Medicine Quality Management Plan**

The following procedures will be utilized for the evaluation and review of quality and appropriateness of the activities of this department.

1. Quality control results for each test method.
2. Periodic review and update of procedures and policies for special handling, test methods and reports.
3. Quarterly review of reference lab testing for quality and client services at the monthly Clinical Lab leadership meeting.
4. Participation in:
  - a. Proficiency testing programs of the College of American Pathologists and/or other providers as appropriate, e.g., the Centers for Disease Control and Prevention, the State of California, and commercial suppliers.
  - b. Other quality improvement programs as appropriate, for example Q-Tracks/Q-Probes programs of the College of American Pathologists.
  - c. Biennial accreditation surveys by The Joint Commission.
5. Case reviews by faculty and house staff of the Laboratory Medicine Service.
6. A variety of pre-analytical and post-analytical test variables specific to each testing discipline that have major impact on patient care (e.g., turnaround testing times for key 'stat' tests, relay of critical test results to clinical care providers, specimen rejection rate, readiness and transport time for blood products, etc.)
7. Regular performance evaluations will be conducted for employees, house staff and faculty according to UCSF and ZSFG policies and procedures, as applicable.

**E. Monitoring & Evaluation of Appropriateness of Patient Care Services and Response to SAFE Reports**

The Director of the Clinical Laboratory will conduct an annual review and approval of the Quality Management (Performance Improvement / Patient Safety) Plan and of the professional practices of the department to assure that they are appropriate and consistent with the plan.

SAFE Reports, complaints, or issues are investigated and reported in writing as soon as possible. The Director reviews each such incident and a response is forwarded, when appropriate, to the ZSFG Quality Management Office, other appropriate hospital committee, authority, and/or the complaining party.

Summaries of SAFE reports shall be reviewed at regular meetings of the Clinical Laboratory Leadership to identify events that require focused additional review. As issues, patterns and trends are identified, further assessment will be performed to determine the cause and extent of specific problems. The procedures to be followed may include audits of patient charts, pilot studies, research protocols, and interviews with clinical staff.

Corrective action may include any of the following, as appropriate:

1. In-service education and training programs for staff, house staff and faculty members.
2. Counseling and proctoring.
3. Staffing changes.
4. Changes in procedures or policies.
5. Changes of reagents and/or equipment.

Appropriate utilization of Clinical Laboratory services by the clinical staff will be promoted by formal and informal interaction between Laboratory Medicine faculty and house staff and members of the clinical departments at departmental rounds, house staff conferences, student lectures and seminars, and individual consultations.

**XI. MEETING REQUIREMENTS**

In accordance with ZSFG Medical Staff Bylaws, all Active Members are expected to show good faith participation in the governance and quality evaluation process of the Medical Staff by attending a minimum of 50% of all committee meetings assigned, clinical service meetings, including weekly call conferences and the annual Medical Staff Meeting. ZSFG Clinical Laboratory faculty who are not physicians are expected to meet the same attendance requirements as medical staff members, with the exception of attendance at the Annual Medical Staff Meeting. For faculty members with part time clinical appointments the expectation for attendance at meetings is reduced in proportion to their appointment.

The leadership of the Laboratory Medicine Service shall meet as frequently as necessary, usually monthly, but at least quarterly to consider findings from ongoing monitoring and evaluation of the quality and appropriateness of the care and treatment provided to patients.

As defined in the ZSFG Medical Staff Bylaws, a quorum is constituted by at least three (3) voting members of the Active Staff for the purpose of conducting business. In accordance with the Bylaws, the Laboratory Medicine Service Chief may extend voting rights to non-medical staff members. This will be documented in committee minutes at the beginning of the Medical Staff year and shall remain in effect for one year.

**XII. ADOPTION, REVIEW AND AMENDMENT**

Adoption of these Laboratory Medicine Service Rules and Regulations, as well as any revisions or amendments require a majority vote of all active medical staff members and faculty of the Laboratory Medicine Service Department at ZSFG. The Service Chief will conduct a review of these Rules and Regulations at least every other year and propose revisions and amendments to the voting members of the Department.

**XIII. REVISION HISTORY**

Description:	Supervisor Signoff By:	Signoff Date:
Changed review cycle from “annual” to “at least biannual” in sections III B. (Review of Privilege Request Form) and XII (Adoption, Review and Amendment). Clarified the review and voting process on revisions and amendments of these service rules and regulations in section XII.	E. Fiebig	9/25/2012
Placed in new format. Updated Lab Medicine Service Org Chart. Update references to SFGH LMR Rotation Guidelines (attachments)	E. Fiebig	6/21/2013
Updated Lab Medicine Service Org Chart (Core Lab) Deleted reference to “Community Health Network, CHN” in Clin Lab Director’s Job Description Update Attachment B, Resident’s Packet Omit reference to Fellowship education in Public Health Microbiology, section VII.	B. Haller	9/1/2016
Changed all SFGH to ZSFG Updated Org Chart	B. Haller	9/11/2018
Changed all references to LCR to electronic medical record (EMR) Changed evaluate to MedHub (for resident and student evaluations) Changed annual report to MEC to biannual report	B. Haller	5/14/2019

**Laboratory Medicine Service Rules and Regulations 2024**

Laboratory Director will recommend annually reference laboratories to the Medical Executive Committee – Changed to the following statement which meets Joint Commission Standards:  Clinical Staff can recommend to the Laboratory Director alternative reference laboratories based on clinical need. The Laboratory Director will evaluate and approve Clinical Staff recommendation if indicated.	B. Haller	9/10/2020
Change biannual to “biennial” or “every other year”. Minor formatting and grammar changes.	B. Haller	9/10/2020
Updated location of Laboratory On-Line Manual - <a href="https://www.testmenu.com/zsfglab/">https://www.testmenu.com/zsfglab/</a> Updated Org Chart	B. Haller	9/10/2020
Removed Attachment D. ZSFG Laboratory Resident Survival Manual. To be updated and rewritten to include new test methodologies and testing strategies at ZSFG Clinical Laboratory.	B. Haller	9/10/2020
Updated Company name for Lab Information System	B. Haller	9/12/2022
Updated Appendix II, Laboratory Medicine service Organization Chart	B. Haller	9/12/2022
Changed Chief of Service evaluation of Medical Staff will be once per year instead of every 6 months	B. Haller	9/12/2022
Updated Resident Packet received at Orientation to Rotations	B. Haller	9/12/2022
Omit Attachment C. Add text to R+R stating that Orientation and Learning Material is maintained in each Resident rotation site in the Lab.	B. Haller	9/12/2022
Edit Table of Contents	B. Haller	9/1/2024
Replace “unusual occurrence” reports with “SAFE” reports	B. Haller	9/1/2024
Update Appendix II. Organization Chart and Attachment B. Laboratory Medicine Resident’s Packet	B. Haller	9/1/2024
Change UCSF’s “Associate” Dean to UCSF’s “Vice” Dean	B. Haller	9/1/2024

**Laboratory Medicine Service Rules and Regulations 2024**

Change Division “Chief” to Division “Director”	B. Haller	9/1/2024
Change “Senior Supervising” Clinical Laboratory Scientists to Clinical Laboratory Scientist “Managers”	B. Haller	9/1/2024
Formatting of Laboratory Medicine Privileges (no change in content)	B. Haller	9/1/2024

**XIV. APPENDIX I – LABORATORY MEDICINE PRIVILEGES**

Privileges for Zuckerberg San Francisco General

Applicant: Please initial the privileges you are requesting in the Requested column.

Service Chief: Please initial the privileges you are approving in the Approved column.

FOR ALL PRIVILEGES: All complication rates, problem transfusions, deaths, unusual occurrence reports, patient complaints and sentinel events, as well as any specific Department quality indicators, are monitored semiannually.

Requested

Approved

**16 LABORATORY MEDICINE**

\_\_\_\_\_

\_\_\_\_\_

**16.10**

**CATEGORY I – CORE PRIVILEGES**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pathology in Clinical Pathology or Anatomic & Clinical Pathology. Patient care responsibilities encompass supervision and direction of the specimen collection, selection of laboratory procedures appropriate for patient care, analysis, reporting and interpretation of results of diagnostic tests, including recommendations for patient management based on these results in Blood Banking /Transfusion Medicine/Immunohematology, Clinical Chemistry, Toxicology, Hematology, Immunology, Microbiology/Virology, Molecular Diagnostics, Medical Informatics and Laboratory Management.

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Case Discussions at weekly Lab Med Service Conferences.
- 3) 6-month review of QC oversight documentation (incl. proficiency testing and quality test management)

**REAPPOINTMENT:** Renewal of privileges requires every 2

years:

- 1) review of a minimum of 5 Case Discussions at weekly Lab Med Service Conferences
- 2) review of QC oversight documentation during the evaluation period

\_\_\_\_\_

\_\_\_\_\_

**16.11**

**BONE MARROW INTERPRETATION**

Review and analysis of bone marrow aspirate and biopsy material for diagnosis or monitoring of conditions affecting the hematopoietic system.

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pathology in Clinical and/or Anatomic Pathology **and** Hematopathology.



**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Cases by the Anatomic Pathology Service

**REAPPOINTMENT:** Renewal of privileges requires the review of a minimum of 3 cases by the Anatomic Pathology Service every 2 years.

\_\_\_\_\_ 16.20

**CATEGORY II – SPECIFIC PRIVILEGES**

Individuals who do not qualify for core privileges covering all aspects of laboratory medicine may indicate their specific areas of privileging from the list of subspecialties below. Patient care responsibilities within the specific area for which privileges are requested are the same as outlined above for core privileges in Laboratory Medicine.

\_\_\_\_\_ 16.21  
**IMMUNOHEMATOLOGY**

**BLOOD BANKING, TRANSFUSION MEDICINE,**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Medicine, Pediatrics, Obstetrics/Gynecology, General Surgery, or Anesthesia **and** Blood Banking/Transfusion Medicine.

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Transfusion Reaction Reports
- 3) Review of 10 Case Discussions at weekly Lab Med Service Conferences

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Transfusion Reaction Reports
- 2) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 3) review of QC oversight documentation during the evaluation period

\_\_\_\_\_ 16.22

**CLINICAL CHEMISTRY, TOXICOLOGY**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Chemical Pathology or Clinical Chemistry, Toxicology

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Serum/Urine Protein Electrophoresis Reports
- 3) Review of 10 Case Discussions at weekly Lab Med Service Conferences
- 4) review of QC oversight documentation during the evaluation period

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Serum/Urine Protein Electrophoresis Reports

- 2) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 3) review of QC oversight documentation during the evaluation period

\_\_\_\_\_                      \_\_\_\_\_                      **16.24                      HEMATOLOGY (excluding Bone Marrow Interpretation)**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Clinical Hematology or Hematopathology.

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Blood Smear/Body Fluid Interpretations
- 3) Review of 10 Hemoglobinopathy Interpretations
- 4) Review of 10 Case Discussions at weekly Lab Med Service Conferences

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Blood Smear/Body Fluid Interpretations
- 2) Review of 5 Hemoglobinopathy Interpretations
- 3) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 4) review of QC oversight documentation during the evaluation period

\_\_\_\_\_                      \_\_\_\_\_                      **16.25                      MICROBIOLOGY / VIROLOGY**

**PREREQUISITES:** Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Medical Microbiology.

**PROCTORING:**

- 1) 6 months by the Chief of the Laboratory Medicine Service or Designee.
- 2) Review of 10 Broncho-Alveolar Lavage Interpretations
- 3) Review of 10 Case Discussions at weekly Lab Med Service Conferences

**REAPPOINTMENT:** Renewal of privileges requires every 2 years:

- 1) Review of 5 Broncho-Alveolar Lavage Interpretations
- 2) Review of 5 Case Discussions at weekly Lab Med Service Conferences
- 3) review of QC oversight documentation during the evaluation period

**Privileges for Zuckerberg San Francisco General**

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I hereby request clinical privileges as indicated above.

\_\_\_\_\_  
Applicant

\_\_\_\_\_  
Date

FOR DEPARTMENTAL USE:

\_\_\_\_\_ Proctor has been assigned for newly granted privileges.

\_\_\_\_\_ Proctoring requirements have been satisfied.

\_\_\_\_\_ Medications requiring DEA certification may be prescribed by this provider.

\_\_\_\_\_ Medications requiring DEA certification will not be provided by this provider.

\_\_\_\_\_ CPR Certification is required.

\_\_\_\_\_ CPR Certification is not required.

APPROVED BY:

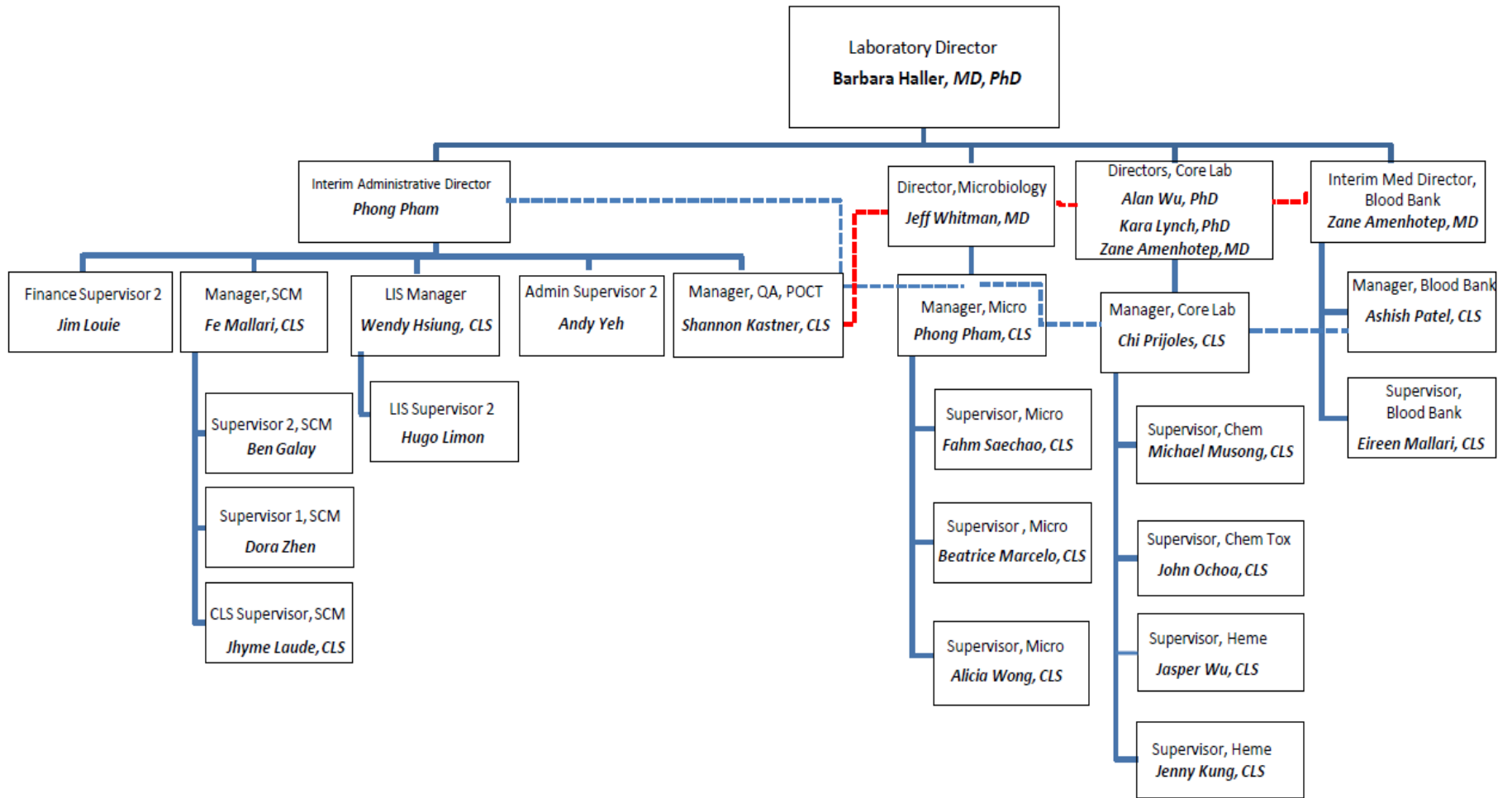
\_\_\_\_\_  
Division Chief

\_\_\_\_\_  
Date

\_\_\_\_\_  
Service Chief

\_\_\_\_\_  
Date

**XV. APPENDIX II – LABORATORY MEDICINE SERVICE ORGANIZATION CHART**



## **XVI. ATTACHMENT A – CLINICAL SERVICE CHIEF’S JOB DESCRIPTION**

University of California, San Francisco – Department of Laboratory Medicine  
Zuckerberg San Francisco General  
1001 Potrero Avenue, San Francisco CA 94110  
Clinical Laboratory

DIRECTOR OF CLINICAL LABORATORY, ZUCKERBERG SAN FRANCISCO GENERAL

### **JOB DESCRIPTION:**

#### **General:**

The Director of the Clinical Laboratory at Zuckerberg San Francisco General is accountable to the Chairman of the UCSF Department of Laboratory Medicine and the Associate Dean of the UCSF School of Medicine at ZSFG. This individual also serves as Chief of the Laboratory Medicine Service at ZSFG and as Vice Chair for the UCSF Department of Laboratory Medicine at ZSFG.

The Director of Clinical Laboratory has overall responsibility for the ZSFG Clinical Laboratory, including direction, planning, implementation and maintenance of all professional and administrative activities, training and educational programs conducted by the Department at ZSFG, as well as any other duties that may be assigned or delegated.

Specific responsibilities include, but are not limited to the following:

#### **Administrative Responsibilities:**

- Enforces the Medical Staff Bylaws, Rules and Regulations within the Laboratory Medicine Service.
- Assures compliance with the standards and regulations of the Joint Commission on the Accreditation of Healthcare Organizations, and federal, state and local regulatory agencies.
- Participates in departmental, hospital-wide, and university-wide activities, including staff meetings, committees, and related functions.
- Supervises the development, implementation and maintenance of procedures and policies relevant to departmental responsibilities and activities.
- Assures financial integrity of the department. Directs preparation and justification of annual budgets and assures operation within established budgets.

**Clinical Responsibilities:**

- Assures that the Clinical Laboratory provide accurate, timely and appropriate laboratory testing, efficiently and cost-effectively.
- Coordinates and integrates intradepartmental and interdepartmental services with the primary functions of the San Francisco Health Network.
- Develops effective procedures to promote professional interaction between the Laboratory Medicine Service and patient-care services for improved patient care.
- Assures the development, implementation and maintenance of departmental continuing quality improvement programs.
- Assures that all personnel performing work in or for the ZSFG Clinical Laboratories have the necessary qualifications and competence.
- Keeps current with and implements emerging technologies as necessary.

**Academic Responsibilities:**

- As Vice Chair of the UCSF Department of Laboratory Medicine, supervises academic activities at ZSFG, as authorized or delegated by the Department Chair at UCSF and/or the Associate Dean for ZSFG.
- Assures and provides general supervision for training programs, elective courses and continuing education programs, as appropriate, for house staff assigned to ZSFG, UCSF medical students and technical staff of the ZSFG Clinical Laboratory.
- Promotes opportunities for continuing education and academic activities, where appropriate, for faculty and staff of the Department of Laboratory Medicine at ZSFG.
- Maintains competence and leadership in the field of Laboratory Medicine by participation in programs for continuing medical education, professional organizations and public service activities, as appropriate.

Approved:

\_\_\_\_\_  
Barbara Haller, MD, PhD  
Laboratory Director, UCSF Clinical Laboratory at ZSFG

\_\_\_\_\_  
Date

[Division Chiefs' Job Descriptions are held at Laboratory Medicine Service Office]

**XVII. ATTACHMENT B – RESIDENT’S PACKET**

**Laboratory Medicine Service  
Resident’s Packet**

**STATEMENT OF RECEIPT:**

I certify that I have received the Laboratory Medicine Resident’s Packet with the following documents enclosed:

Please check off:

- \_\_\_\_\_ ZSFG Laboratory Safety Guidelines
- \_\_\_\_\_ ZSFG Confidentiality Agreement (Use of DPH Records & Information Systems)
- \_\_\_\_\_ Code of Professional Conduct Policy
- \_\_\_\_\_ On-Call Schedule
- \_\_\_\_\_ Resident’s Weekly Calendar of Conferences

\*\* ZSFG Clinical Laboratory Test Directory is available @ <https://www.testmenu.com/zsfglab>

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Please complete this form and return it to Andy Yeh in the Administration Office after review.







# ZSFG LABORATORY MEDICINE SERVICE REPORT 2022-2024

Barbara Haller, MD, PhD  
Chief, Laboratory Medicine  
Service Director, UCSF Clinical  
Laboratory at Zuckerberg  
San Francisco General

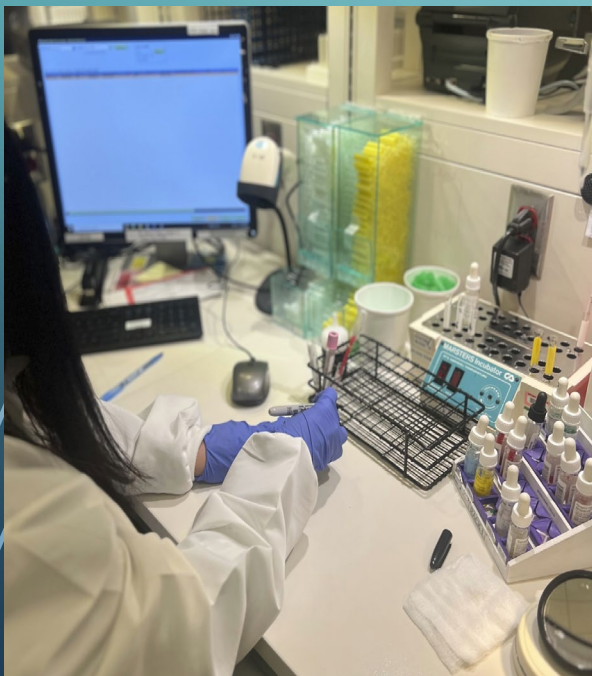


ZUCKERBERG  
SAN FRANCISCO GENERAL  
Hospital and Trauma Center

# OUR MISSION

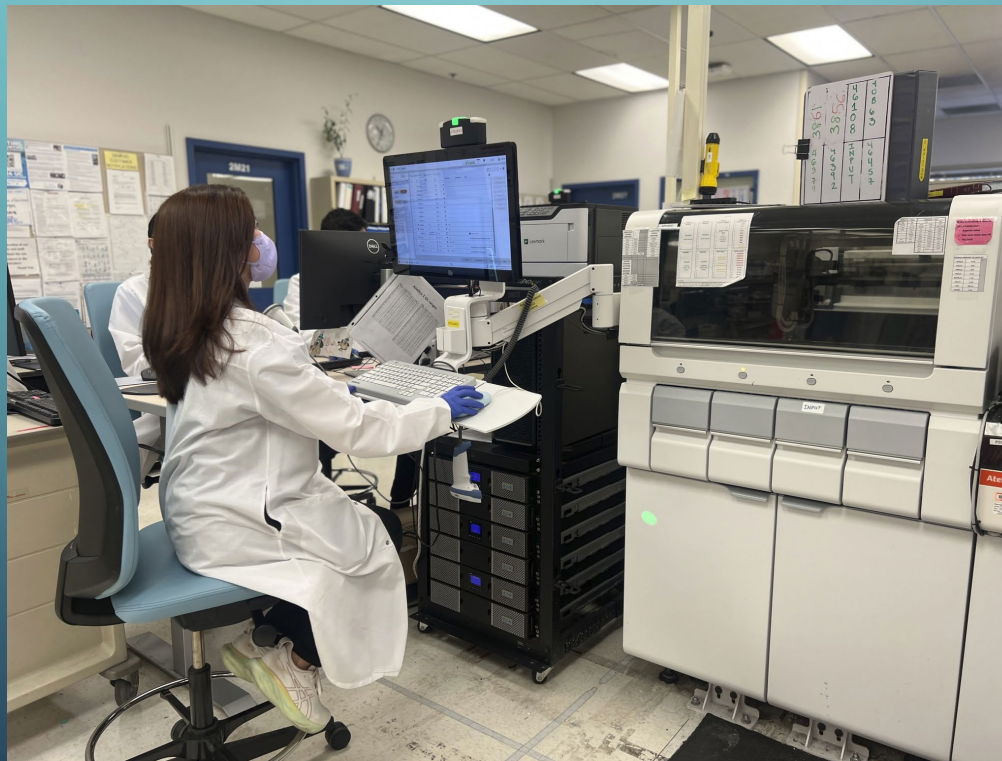
Provide accurate, timely, efficient, cost-effective and high-quality laboratory services in a safe and supportive work environment.

Further the UCSF/ZSFG academic missions of research, education, patient care and public service.



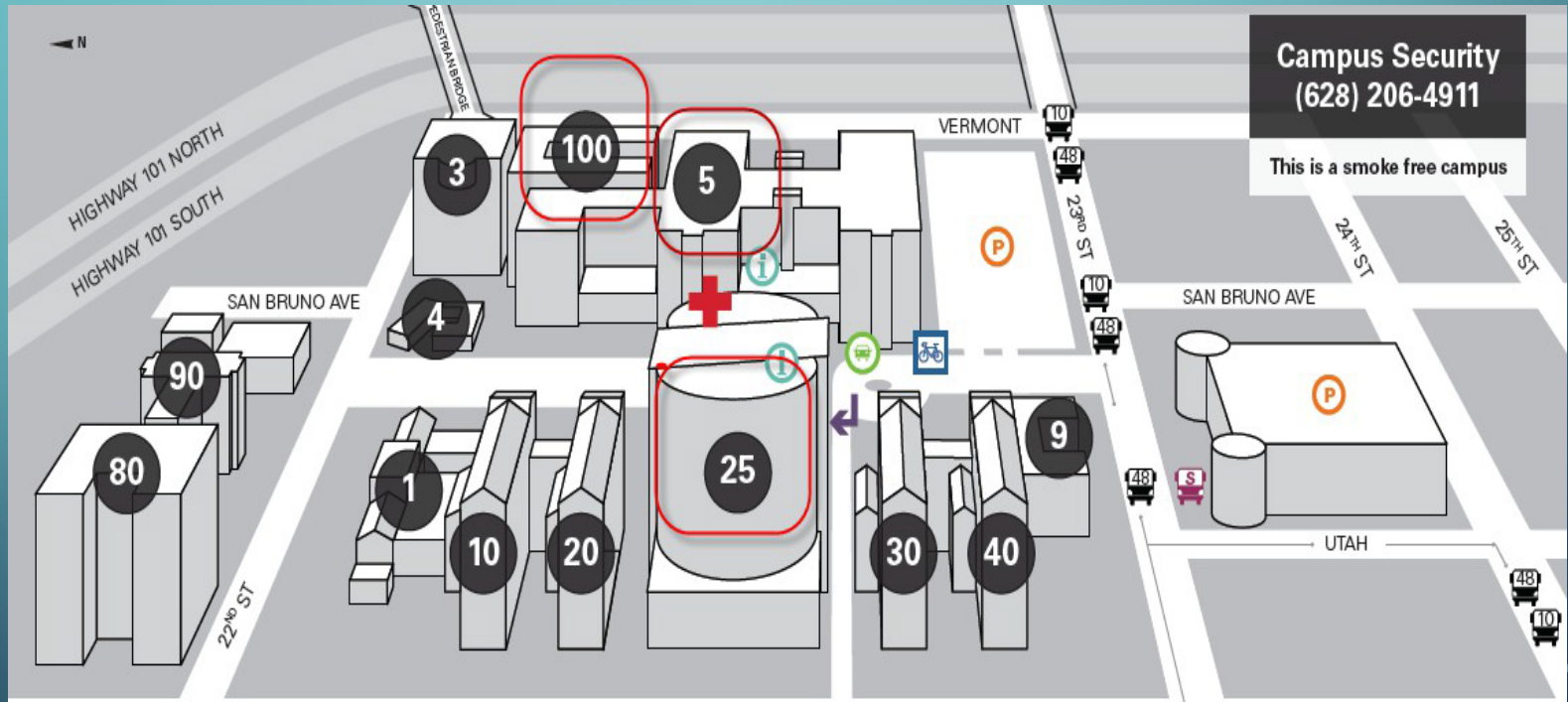
# OUR VISION

To excel in clinical laboratory testing and provision of transfusion services, consultation, teaching, training, scholarship and discovery in laboratory medicine.



# CLINICAL LAB SPACES

2<sup>ND</sup> FLOOR OF THE BLDG 5, BLOOD BANK AND POCT OFFICE AND LAB IN BLDG 25, AND 1<sup>ST</sup> FLOOR OF BLDG. 100



# CLINICAL LAB SPACES

1<sup>st</sup> FLOOR OF BUILDING 5: Outpatient Phlebotomy Department OPD



# CLINICAL LAB SPACES

2<sup>ND</sup> FLOOR OF BUILDING 5: Clinical Laboratory Main Entrance  
Lab Admin, Specimen Collection & Management, Hematology/ Coag/ UA,  
Chemistry and Microbiology



# CLINICAL LAB SPACES

GROUND LEVEL OF BUILDING 25 BLOOD BANK and 3<sup>rd</sup> FLOOR POCT Office





# CLINICAL LAB SPACES

**2<sup>ND</sup> FLOOR OF BUILDING 5: Microbiology**

**1<sup>ST</sup> FLOOR OF BUILDING 100: Lab Info Systems, Toxicology, Serology, and Lab Support Services**



Building 100: Lab  
Info Systems and  
Lab Support  
Services

Building 5 – Microbiology

# CLINICAL SERVICES PROVIDED

- **Comprehensive Laboratory Testing**
  - Operational 24/7, 365 days/year, provide >500 different laboratory tests
- **Transfusion Services for ZSFG and LHH**
- **Limited Phlebotomy Services – Bldg. 5 (Outpatients, M-F, 7:00 – 11:45AM)**
- **Management of Point of Care Testing at ZSFG**
- **Oversee OR and Milk Bank Transplant Services**

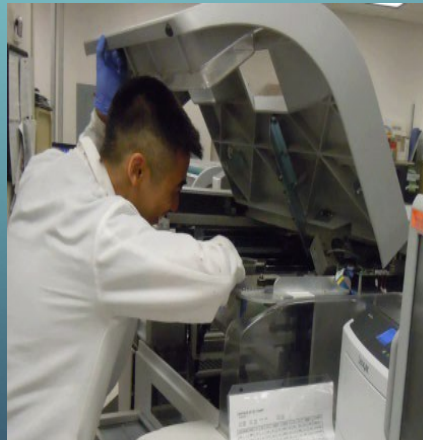
# CLINICAL SERVICES PROVIDED

- **24/7 Technical and Clinical Consultation**
  - **Laboratory Medicine Faculty**
  - **Laboratory Medicine Residents**
    - **On-call during ZSFG Rotations 8am-5pm M-F**
    - **Rotating call Evenings, Nights, Weekends, Holidays for training hospitals ZSFG, UCSF, VAMC**
    - **Backup – Clinical Pathology Chief Residents and Laboratory Medicine Faculty each site**

# CLINICAL LABORATORY SCOPE OF SERVICES

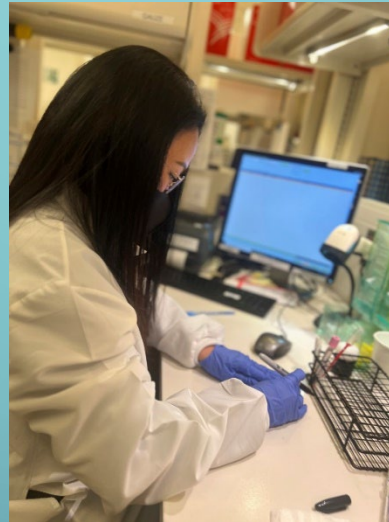
Support Acute Care Hospital, LHH, and Outpatient Testing

- Blood Bank and Transfusion Services
- Routine Chemistry, Toxicology, Special Chemistry, Endocrinology
- Hematology, Coagulation, Urinalysis, Bone Marrow and Body Fluid Analysis



# CLINICAL LABORATORY SCOPE OF SERVICES

- Microbiology, Immunology, Parasitology, Mycology, Mycobacteriology, Virology, Molecular Biology
- Specimen Collection and Management, Outpatient Phlebotomy
- Laboratory Support Services
- Laboratory Information Systems
- Point-of-Care Oversight and Support
- Laboratory Consultative Services
- Referral Services for Esoteric and Genetic Testing

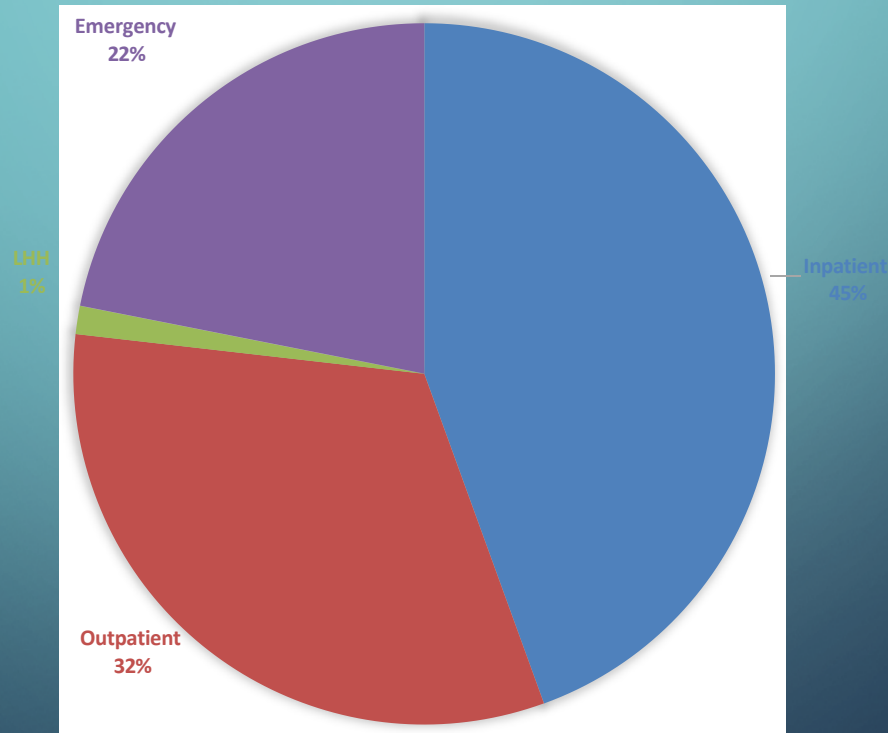


# SCOPE OF CLINICAL WORK

Category	2022/2023	2023/2024	Difference	% Difference
Lab Billable Tests	2,170,516	2,202,833	32,317	1.5%
ARUP Lab Testing	28,271	32,051	3,780	13.4%
Blood Components Issued - Total	6,914	7,792	878	12.7%
RBCs issued	4,748	5,083	335	7.1%
FFP units issued	1,545	1,987	442	28.6%
Platelets units issued	503	615	112	22.3%
Cryo units issued	118	107	- 11	-9.3%
Number of Outpatient Phlebotomy Collections	35,581	38,328	2,747	7.7%

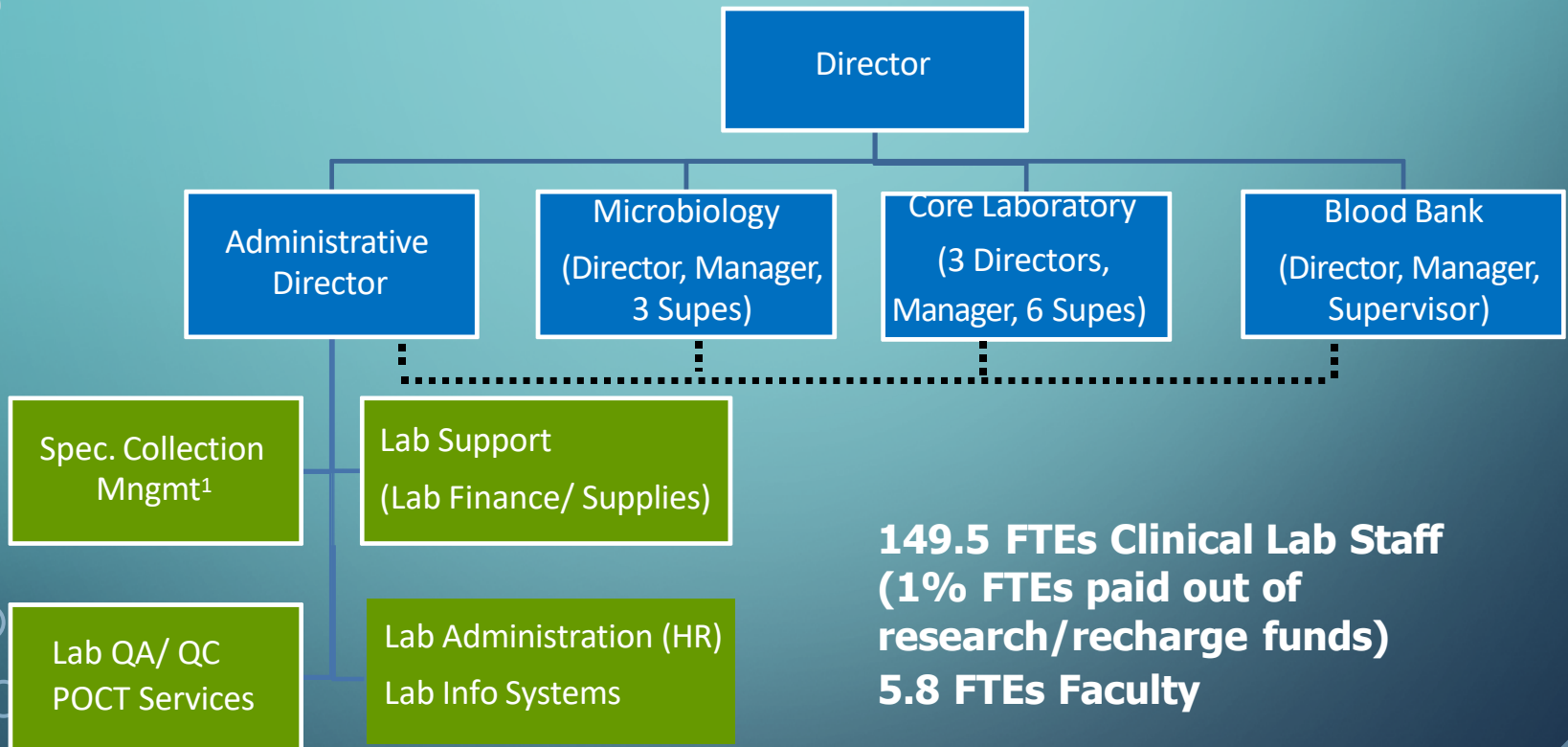
# HOSPITAL / OUTPATIENT-BASED CLINICAL WORK (LAB TESTS)

2022- 2024 BILLABLE TESTS  
2.2 million



[Source: Sunquest]

# CLINICAL LAB LEADERSHIP STRUCTURE



**149.5 FTEs Clinical Lab Staff**  
**(1% FTEs paid out of**  
**research/recharge funds)**  
**5.8 FTEs Faculty**



# CLINICAL LAB FACULTY



**Barbara Haller, MD, PhD**  
Laboratory Director



**Jeffrey Whitman, MD**  
Microbiology, Director

# CORE LAB FACULTY



**Zane Amenhotep, MD**  
Director, Hematology



**Alan Wu, PhD**  
Director, Chemistry  
and Toxicology



**Kara Lynch, PhD**  
Director, Chemistry  
and Toxicology



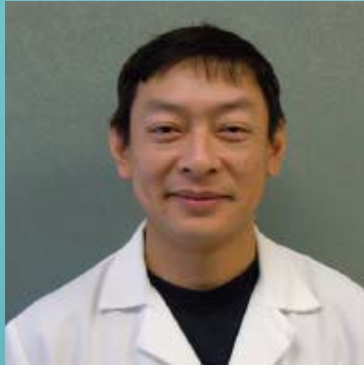
**Zane Amenhotep, MD**  
**Interim Director, Blood Bank**

# STEVE PEACOCK



*Tribute to a dear colleague and friend of ZSFG.  
Steve was respected and admired for his leadership and  
commitment to the Clinical Lab at ZSFG.*

# LEADERSHIP TEAM



**Phong Pham**  
Interim Admin  
Director



**Andy Yeh**  
Admin Supervisor



**Shannon Kastner, CLS**  
POCT and QA Manager



**Jim Louie**  
Finance Supervisor



**Wendy Hsiung, CLS**  
Lab Information  
Systems Manager



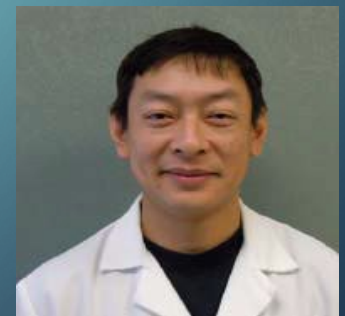
**Ashish Patel, CLS**  
Interim Blood Bank  
Manager



**Chi Prijoles, CLS**  
Core Lab  
Manager



**Fe Mallari, CLS**  
Specimen Collection  
Manager



**Phong Pham, CLS**  
Microbiology  
Manager

# CLS SUPERVISORS



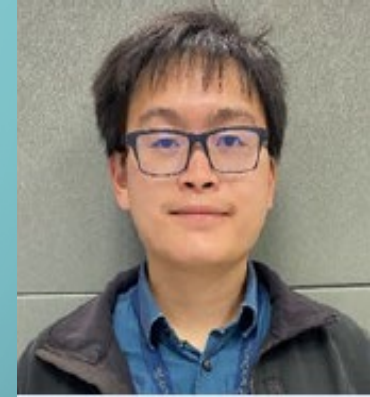
**Eireen Mallari,  
CLS, Supervisor**



**Michael Musong,  
CLS, Supervisor**



**John Ochoa,  
CLS, Supervisor**



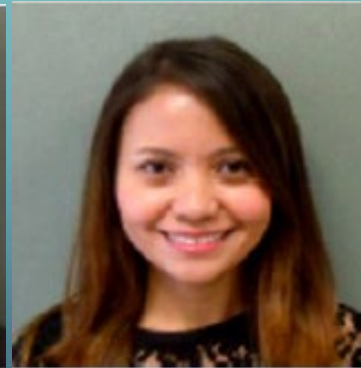
**Jasper Wu,  
CLS, Supervisor**



**Jenny Kung,  
CLS, Supervisor**



**Fahm Saechao,  
CLS, Supervisor**



**Beatrice Marcelo,  
CLS, Supervisor**



**Alicia Wong  
CLS, Supervisor**



**Jhyme Laude,  
CLS, Supervisor**

# POCT TEAM



Shannon Kastner  
POCT Manager



Binh Bui  
POCT Coordinator

Francis Corteza  
LVN



Cassius Santiago  
LVN

# POINT OF CARE TESTING AT ZSFG SNAPSHOT

- **9 CLIA Laboratory Licenses**
- **10 waived tests (glucose, hemoglobin, pH, urine chemistries, urine preg, urine toxicology screen, rapid HIV, creatinine, COVID antigen, occult blood)**
- **9 non-waived tests (glucose, lactate, electrolytes, blood gases, cooximetry, PPMP microscope)**
- **45+ locations**
- **>1500 end users (nurses, physicians, MEAs, Respiratory Therapists)**
- **Clinical Lab Point of Care Committee – 2 LPNs, 2 Coordinators, a manager and Laboratory Director.**





## EDUCATION & TRAINING

- **UCSF Laboratory Medicine/Pathology Residents (MDs):**
  - CP only or AP/CP residents
  - Chemistry and Toxicology – one resident/1-2 months
  - Microbiology – 1 resident/1-2 months
  - Heme/BB/Cell Therapy Rotation – 1 resident every other month

## EDUCATION & TRAINING

- **UCSF Laboratory Medicine/Pathology Residents (MDs):**
  - 1-on-1 supervision by responsible faculty
  - Graded responsibility in test interpretation, approvals, lab management, consultations
- **Award for Zane Amenhotep – UCSF Department of Laboratory Medicine Teaching Award (presented by Residents and Fellows for FY 2022-23)!**

# EDUCATION & TRAINING

- **Clinical Chemistry Fellows (PhDs):**
  - **Training in Clinical Chemistry/Toxicology**
  - **Research Projects – new instrumentation evaluations, Mass spectrometry**
  - **Goal – Director Clinical Chemistry Lab**
  - **2-3 per year in 2-yr Clinical Chemistry Fellowship Program accredited by Commission on Accreditation in Clinical Chemistry**
  - **Supervised by responsible faculty – Dr. Wu and Dr. Lynch, Dr. Whitman**

Date		Name	Fellow	Faculty Role	Current Position
2020	- 2022	Fola Arowolo	Clinical Chemistry Postdoctoral Fellow	Clinical and Research Supervision	Assistant Professor, Assistant Director of Clinical Chemistry, Mt. Sinai Health System
2020	- 2022	Briana Fitch	Clinical Chemistry Postdoctoral Fellow	Clinical and Research Supervision	Assistant Professor, Director of Clinical Chemistry, University of Southern California
2022	- 2024	Ahmed Najjar	Clinical Chemistry Postdoctoral Fellow	Chief of Informatics, ZSFG Clinical Laboratory	Clinical Instructor, Dept. of Laboratory Medicine, UCSF
2023	-2025	Cody Orahoske	Clinical Chemistry Postdoctoral Fellow	Future Assistant Professor, Chemistry Lab Director	
2023	-2025	Morgan Mann	Clinical Chemistry Postdoctoral Fellow	Future Assistant Professor, Chemistry Lab Director	
2024	-present	Hannah Lusk	Clinical Chemistry Postdoctoral Fellow	Future Assistant Professor, Chemistry Lab Director	

# ADLM 2024



Annual UCSF Clinical Chemistry Post-Doctoral Fellows Alumni Breakfast at the Association for Diagnostics and Laboratory Medicine Annual Scientific Meeting 2024 in July (Chicago).

## EDUCATION & TRAINING

### • **Medical Students:**

- **Lab Med 140.01 (General Lab Med): 2 week course (~ 35-40 students/yr)**
- **Lab Med 140.08 (Microbiology): 2 week course (1-2 students/yr)**

## EDUCATION & TRAINING

### **Clinical Lab Scientist Students:**

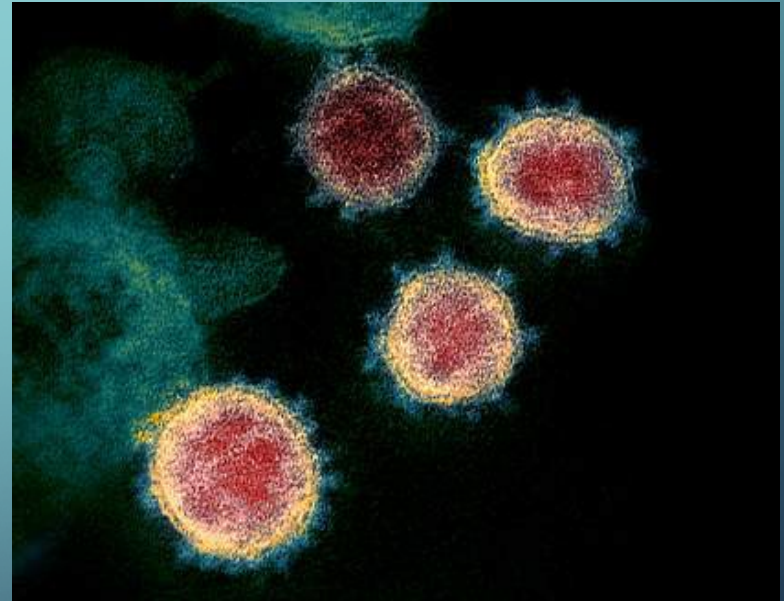
- 1-2 /yr on 10 month Internships through SF State University, training supervised by Admin Director, Lab Managers and
- Lab Supervisors
- Important for CLS recruitment

### **Phlebotomy Trainees:**

- Students from Community Colleges (4-6 per year)

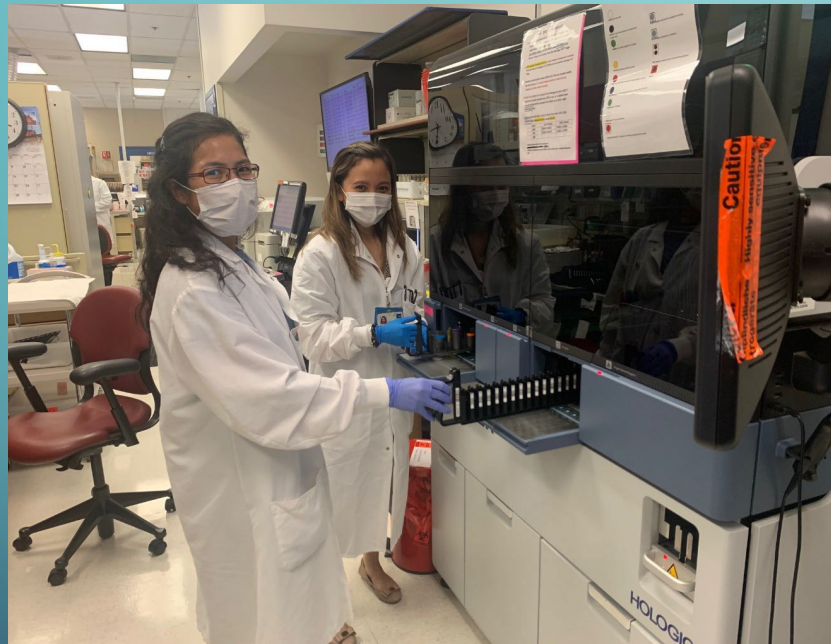
# TESTING FOR SARS COV-2 CONTINUES

- 4 Instruments
- Ave. 109/day





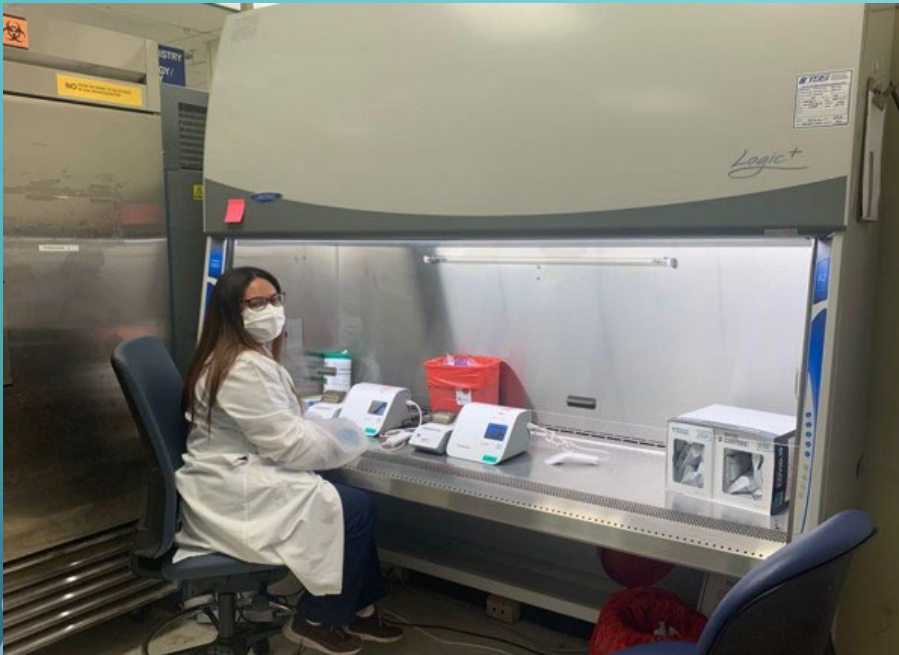
# HOLOGIC PANTHER AND GENEXPERT FOR COVID-19 TESTING



**4 instruments**  
**Ave. 109 tests/day**

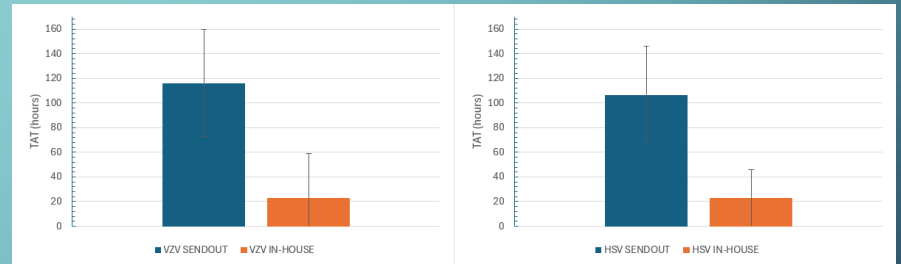


# RAPID ID NOW AND BIOFIRE TORCH RESPIRATORY VIRUS PANEL FOR COVID -19 TESTING



# PERFORMANCE IMPROVEMENT AND PATIENT SAFETY INITIATIVES

- Bringing HSV and VZV PCR testing into Clinical Laboratory
- CSF and mucocutaneous specimens
- Decrease turn-around-time compared to sendout testing



# COST SAVINGS WITH HSV/VZV TESTING IN CLINICAL LABORATORY

<b>HSV Sendout Cost</b>	<b>Annual HSV Sendout Cost</b>	<b>HSV in-house Cost</b>	<b>Cost Differential</b>
165.00	135,795	73.59	-75,230
<b>VZV Sendout Cost</b>	<b>Annual VZV Sendout Cost</b>	<b>VZV in-house Cost</b>	<b>Cost Differential</b>
69.00	19,949	76.73	+2,234
		<b>Total Savings</b>	<b>-72,996</b>

# PERFORMANCE IMPROVEMENT AND PATIENT SAFETY INITIATIVES

- ▶ Sept 2022: SCM management and HIMS collaborated some ideas on how we can create a workflow utilizing HIMS staff to help scan and post paper requisition in EPIC
- ▶ Oct 18, 2022: HIMS started scanning paper requisitions from Oct 15,2022.
- ▶ Oct 18 2022: HIMS created a share drive where any paper requisition that cannot go to EPIC will be scanned and stored in a share drive. Access is limited to certain staff.
- ▶ Nov 2022 – Fe wrote a procedure on the workflow, posted in Media Lab
- ▶ April 2023 – Microbiology went live
- ▶ July 2023 – Blood Bank went live

# PIPS – UPDATE CHEMISTRY REFERENCE RANGES AND TOX SCREEN ORDERS

February 14, 2023

To: All Healthcare Providers

From: Kara Lynch, PhD  
Co-Director, Core Lab

Alan Wu, PhD  
Co-Director, Core Lab

Barbara Haller, MD, PhD  
Director of ZSFG Clinical Lab

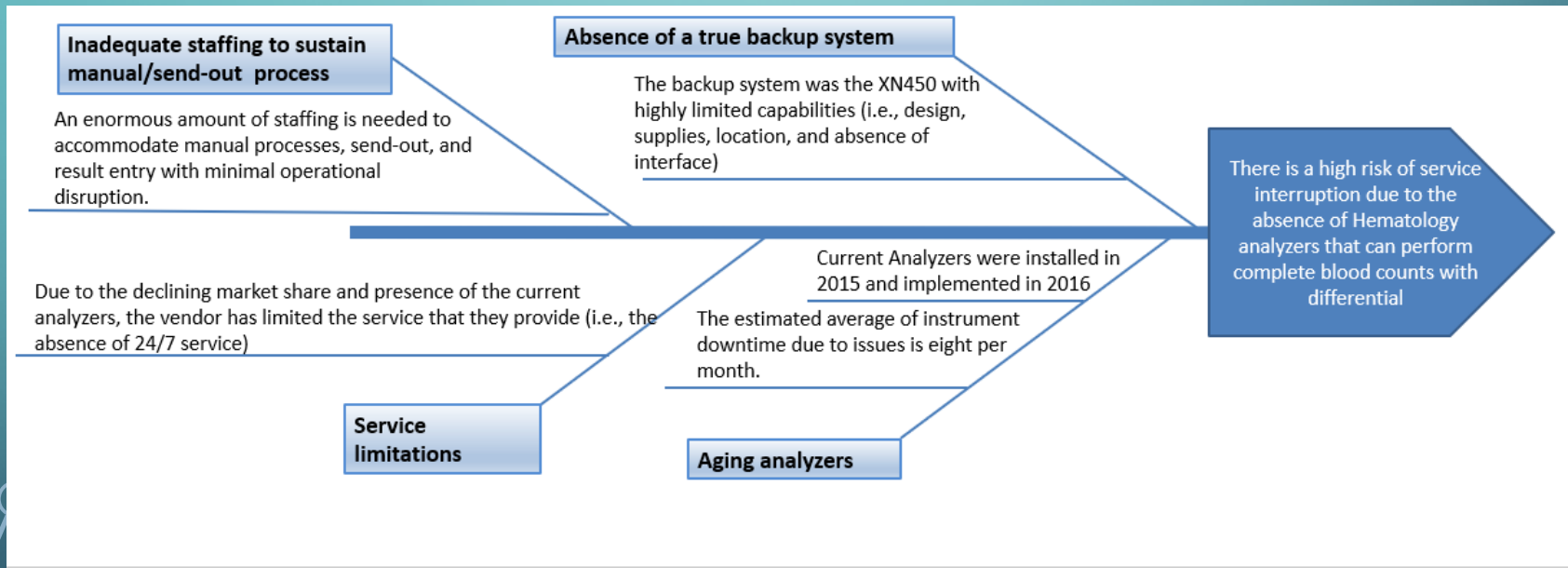
**Re: Clinical Laboratory Reference Interval Update and Changes to Ordering for the Toxicology Screen**

Effective February 15, 2023, the clinical laboratory will update reference intervals for many chemistry tests. An extensive reference interval review and study was conducted by the laboratory in attempts to update intervals to align with current testing methodologies and appropriate practice guidelines. All test results prior to the change will still be displayed with, and flagged according to, the reference interval that was active at the time of testing.

Also, effective February 15, 2023, the "Toxicology Screen (Emergency), Urine" will no longer be orderable in EPIC. Please order the "Toxicology Screen, Urine" as the replacement. These two tests have been consolidated and will include immunoassays for the following drug/drug classes: amphetamines, barbiturates, benzodiazepines, cocaine, fentanyl, methadone metabolite, opiates, oxycodone, and 6-monoacetylmorphine (heroin metabolite). All amphetamine positives will automatically reflex to confirmatory testing for all locations. All opiate positives will automatically reflex to confirmation testing for all locations except urgent care, emergency department, and most inpatient units. Confirmatory testing for these locations and for other immunoassays is available upon request.

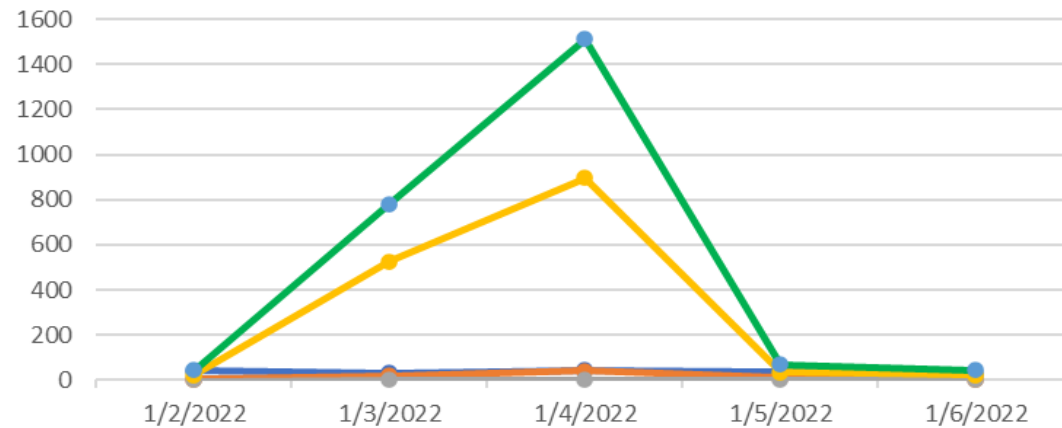
For questions or concerns please contact Dr. Kara Lynch ([kara.lynch@ucsf.edu](mailto:kara.lynch@ucsf.edu) or 6-5477) in the clinical laboratory.

# PIPS – ACQUIRE BACKUP HEME ANALYZER



# VERY LONG TIME FOR CBC – SENT TO UCSF

Automated Hem STAT samples TAT  
Both ADV down on 1/3 and 1/4 (samples sent to UC)

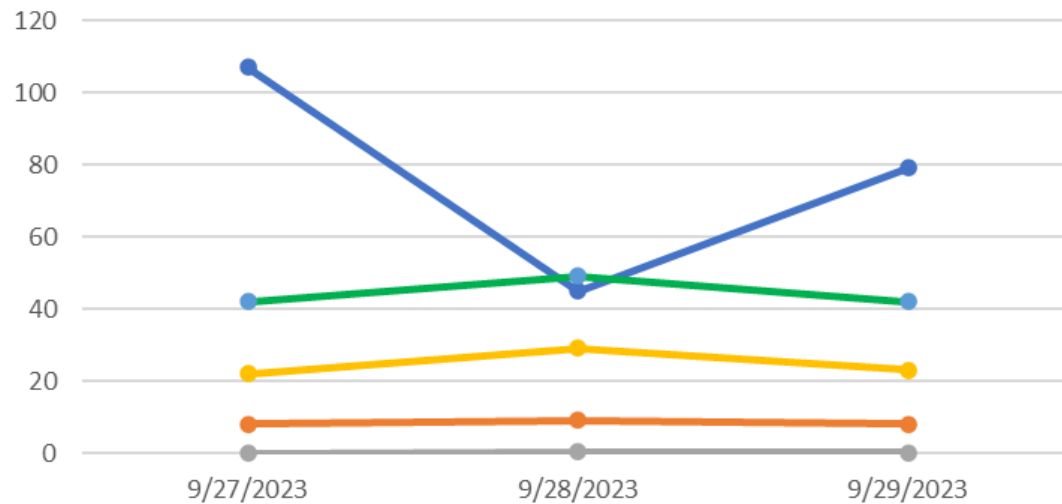


	1/2/2022	1/3/2022	1/4/2022	1/5/2022	1/6/2022
—●— Samples (n)	40	32	45	39	27
—●— Outliers	4	20	41	10	3
—●— % samples >45 mins	10.0%	62.5%	91.1%	25.6%	11.1%
—●— Average TAT (mins)	24	527	895	34	24
—●— 90th Percentile TAT (mins)	43	780	1513	69	43



# MAINTAINED AVE TAT WITH BACKUP HEMATOLOGY ANALYZER

Automated Hem STAT samples TAT  
Both ADV down 9/28/23 and 9/29/23 due to issues (samples were run on XN550)



	9/27/2023	9/28/2023	9/29/2023
● Samples (n)	107	45	79
● Outliers	8	9	8
● % samples >45 mins	7.5%	20.0%	10.1%
● Average TAT (mins)	22	29	23
● 90th Percentile TAT (mins)	42	49	42

# INVOLVEMENT IN HOSPITAL/MEDICAL STAFF COMMITTEES

- **Haller – ALCC, CPG Board, Medical Executive Committee, Credentials, DPH Compliance Committee, Beaker Build Lead**
- **Amenhotep – PIPS, Medical Executive Committee (at-large member), GME Committee, Interim Chair of Transfusion Committee, Massive Transfusion Committee**
- **Wu – GCRC Committee**

# INVOLVEMENT IN HOSPITAL/MEDICAL STAFF COMMITTEES

- **Lynch – Disaster Committee, UCSF Research and Academic Bldg. Transition Leader, Pride Hall Community Council, Co-Chair Pride Hall Wet Lab Workgroup**
- **Whitman – Infection Control Committee, P+T Antibiotic Subcommittee**

## UCSF COMMITTEE PARTICIPATION

- **Amenhotep - UCSF School of Medicine Committee on Curriculum and Educational Policy (CCEP) - At Large Member [2021-present]**
- **Amenhotep - UCSF Department of Laboratory Medicine Residency Clinical Competency Committee (CCC) - Member [2021-present]**
- **Whitman – Department of Laboratory Medicine Promotions Committee**

Communication	Participants
Daily Management System- COVID Huddle	<ul style="list-style-type: none"> <li>• Laboratory Director and Faculty</li> <li>• Administration and LSS</li> <li>• Division Managers and Supervisors</li> </ul>
Weekly Faculty Meeting	<ul style="list-style-type: none"> <li>• Laboratory Director and Faculty</li> </ul>
Weekly Managers Meeting	<ul style="list-style-type: none"> <li>• Admin Director and Lab Managers</li> </ul>
Division Specific Huddles (daily or at least weekly)	<ul style="list-style-type: none"> <li>• Division Faculty, Manager and Supervisors</li> <li>• Division Staff</li> </ul>
Monthly Leadership Meeting	<ul style="list-style-type: none"> <li>• Laboratory Director and Faculty</li> <li>• Administration Leaders</li> <li>• Division Managers</li> </ul>

# LABORATORY MEDICINE FACULTY RESEARCH

- **Ranges from original basic research to translational research**
- **Studies of High-Sensitivity Troponin**
- **Biomarkers to assess acute liver injury**
- **Develop new methods for detection of drugs using mass spectrometry**
- **Screening recommendations to detect Chagas Disease in different patient populations**

# ALAN WU, PHD

1. Wu AHB. A practical guide to the implementation of high-sensitivity cardiac troponin into the clinical lab. J Lab Prec Med 2023, <https://dx.doi.org/10.21037/jlpm->
2. Wu AHB, Jaffe A, Peacock WF, Kavsak P, Greene D, Christenson RH. The role of artificial intelligence for providing scientific content for laboratory medicine. J Appl Lab Med 2023; <https://doi.org/10.1093/jalm/jfad095>.
3. Wu AHB, Peacock WF. Potential medical impact of unrecognized in vivo hypokalemia due to hemolysis: a case series. 2024; Clin Chem Lab Med 2024, doi: 10.1515/cclm-2024-0351.

# KARA LYNCH, PHD

1. Distinct patterns of cigarette smoking intensity and other substance use among women who experience housing instability. *Addict Behav.* 2024 09; 156:108066. Vijayaraghavan M, Elser H, Delucchi K, Tsoh JY, Lynch K, Weiser SD, Riley ED. PMID: 38761684.
2. Serum microRNA-122 for assessment of acute liver injury in patients with extensive skeletal muscle damage. *Lab Med.* 2024 Apr 05. Zhang Y, Ong CM, Lynch K, Waksman J, Wu AHB. PMID: 38578664.
3. Brief Report: The Role of Substance Use in Structural Heart Disease Among Women Living With HIV. *J Acquir Immune Defic Syndr.* 2024 04 01; 95(4):342-346. Riley ED, Vittinghoff E, Ravi A, Coffin PO, Lynch KL, Wu AHB, Martinez C, Hsue PY. PMID: 38133589; PMCID: PMC10922783.
4. Testing the test strips: laboratory performance of fentanyl test strips. *Harm Reduct J.* 2024 Jan 18; 21(1):14. Halifax JC, Lim L, Ciccarone D, Lynch KL. PMID: 38238757; PMCID: PMC10795297.



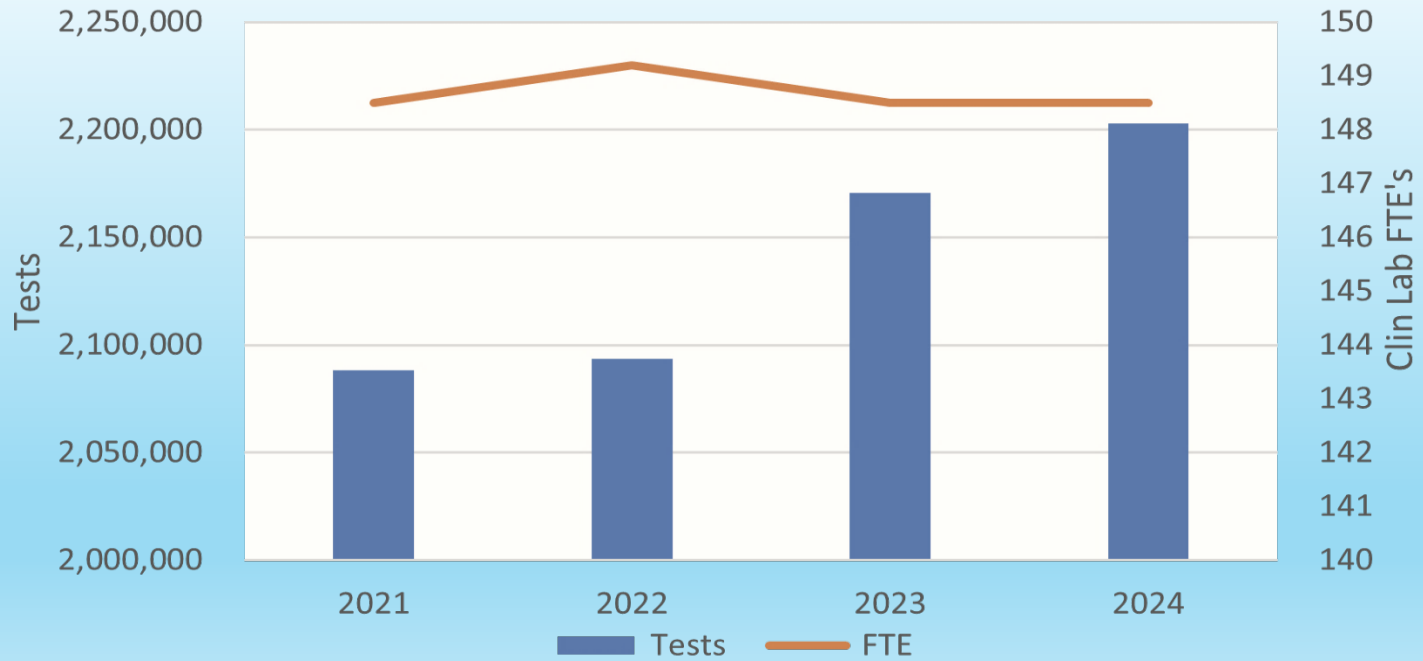
# JEFF WHITMAN, MD

Clark EH, Messenger LA, Whitman JD, Bern C. Chagas disease in immunocompromised patients. *Clin Microbiol Rev.* 2024 Jun 13;37(2):e0009923. doi: 10.1128/cmr.00099-23. Epub 2024 Mar 28. Review. PubMed PMID: 38546225; PubMed Central PMCID: PMC11237761.

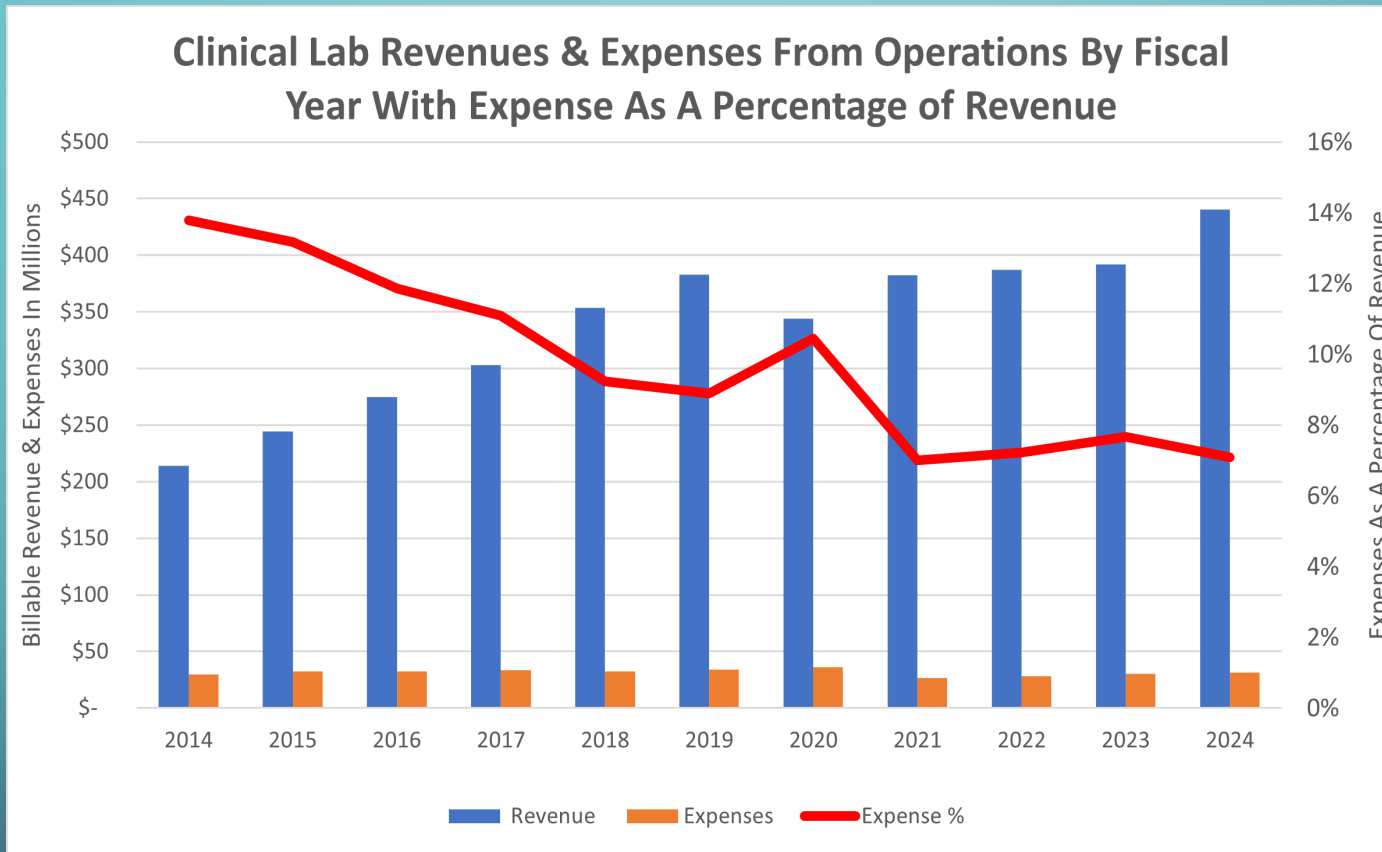
•  
Hayon J, Lupo S, Poveda C, Jones KM, Qian Q, Wu H, Giordano TP, Fleischmann CJ, Bern C, Whitman JD, Clark EH. Adaptation of Chagas Disease Screening Recommendations for a Community of At-risk HIV in the United States. *Clin Infect Dis.* 2024 Feb 17;78(2):453-456. doi: 10.1093/cid/ciad616. PubMed PMID: 37805935.

Kelly EA, Echeverri Alegre JI, Promer K, Hayon J, Iordanov R, Rangwalla K, Zhang JJ, Fang Z, Huang C, Bittencourt CE, Reed S, Andrade RM, Bern C, Clark EH, Whitman JD. Chagas Disease Diagnostic Practices at Four Major Hospital Systems in California and Texas. *J Infect Dis.* 2024 Jan 12;229(1):198-202. doi: 10.1093/infdis/jiad404. Review. PubMed PMID: 37853514; PubMed Central PMCID: PMC11032249.

## Clinical Lab Tests & FTE's By Fiscal Year



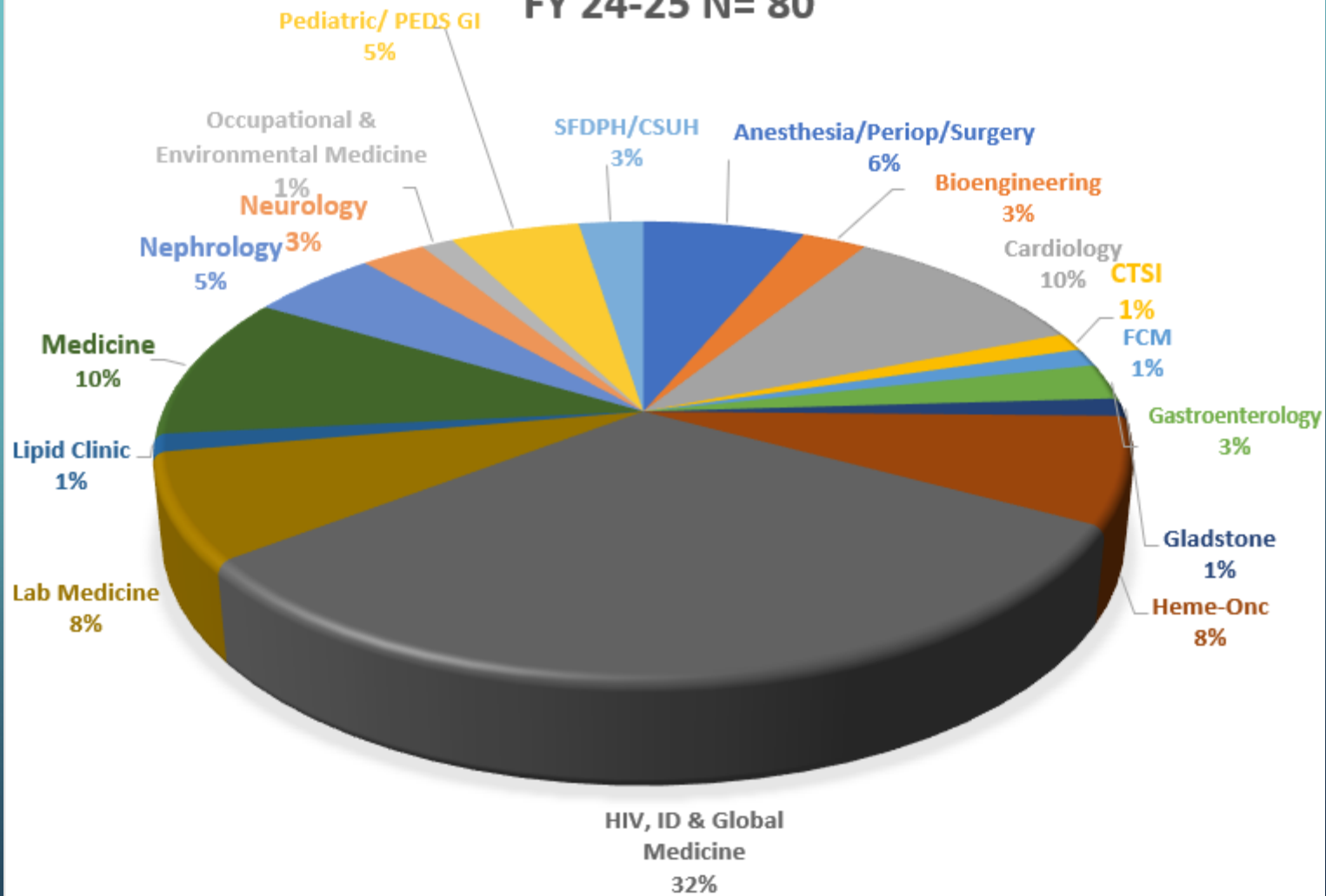
# REVENUE VS EXPENSES



FY	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenue	\$ 214,217,820	\$ 244,211,962	\$ 274,547,464	\$ 303,165,139	\$ 353,363,081	\$ 382,968,962	\$ 344,124,877	\$ 382,243,763	\$ 387,214,468	\$ 391,733,526	\$ 440,476,198
Expenses	\$ 29,548,000	\$ 32,169,708	\$ 32,561,416	\$ 33,629,457	\$ 32,622,386	\$ 34,046,288	\$ 35,957,318	\$ 26,799,430	\$ 27,956,715	\$ 30,055,505	\$ 31,238,877

# CLIN LAB RESEARCH SUPPORT

FY 24-25 N= 80



# 2022-2024 ACHIEVEMENTS

- Laboratory Joint Commission Inspection
- June 2024
- Excellent Performance!
- Of 226 Lab Standards and 993 elements of performance, only 7 findings or 99% compliant!
- Proud of our incredible Lab Leadership and Staff!
- Thank you to all who helped during Inspection!



# NEW INSTRUMENTS AND TESTS

- **Microbiology**

- **Liaison MDX for HSV/VZV PCR**
- **Panther Fusion for Influenza/RSV/COVID PCR**

- **Hematology**

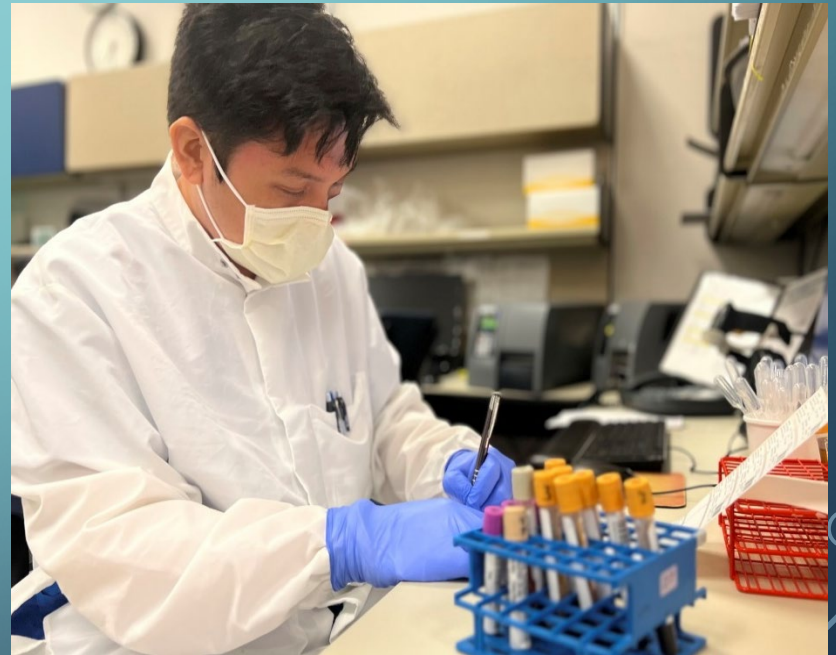
- **UN3000 for automated urinalysis**
- **XN-550 automated cell counts**

- **POCT**

- **New ACT instrument for Cath Lab**
- **Rapid HIV STAT PAK**



# STRENGTHS – STRONG LEADERSHIP AND EXPERIENCED, HARD-WORKING STAFF



# STRENGTHS

- Extensive Test Menu
- Dedicated Support Staff (Admin, LIS, LSS)
- Consultative services – faculty, residents, lab leadership team
- Excellent teaching programs
- Strong research programs
- UCSF Affiliation
- Support from ZSFG Leadership and Staff





# CHALLENGES

- **Key Personnel Vacancies – Lab Administrative Director, Blood Bank and Microbiology Faculty Directors, Key Supervisor and Specialist Vacancies, IT overload**
- **Build and implementation of EPIC Beaker Laboratory Information System, SCC Softbank Blood Bank Information System, DI middleware – all for Oct. 2025 launch!**

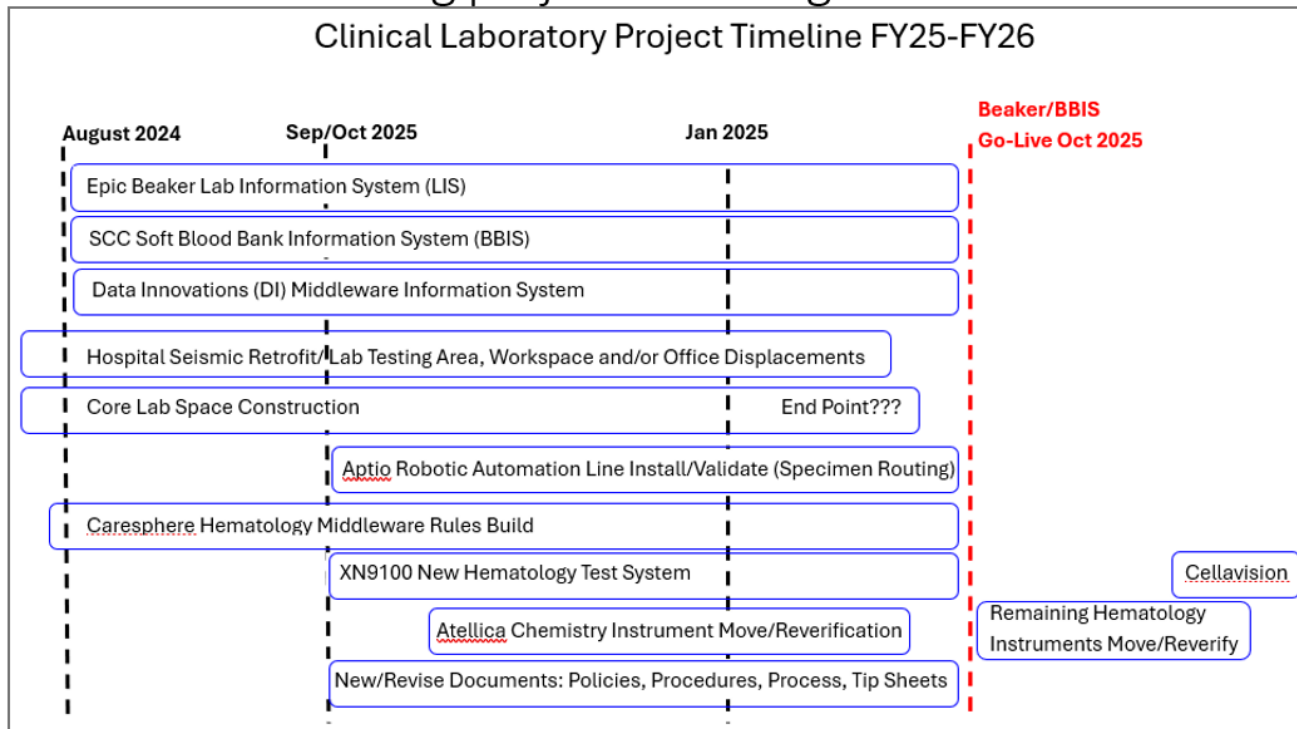
# PROJECTS TIMELINE



PERFORMANCE IMPROVEMENT & PATIENT SAFETY REPORT  
 CONFIDENTIAL PROTECTED BY THE ATTORNEY-CLIENT PRIVILEGE AND CALIFORNIA EVIDENCE CODE 1157

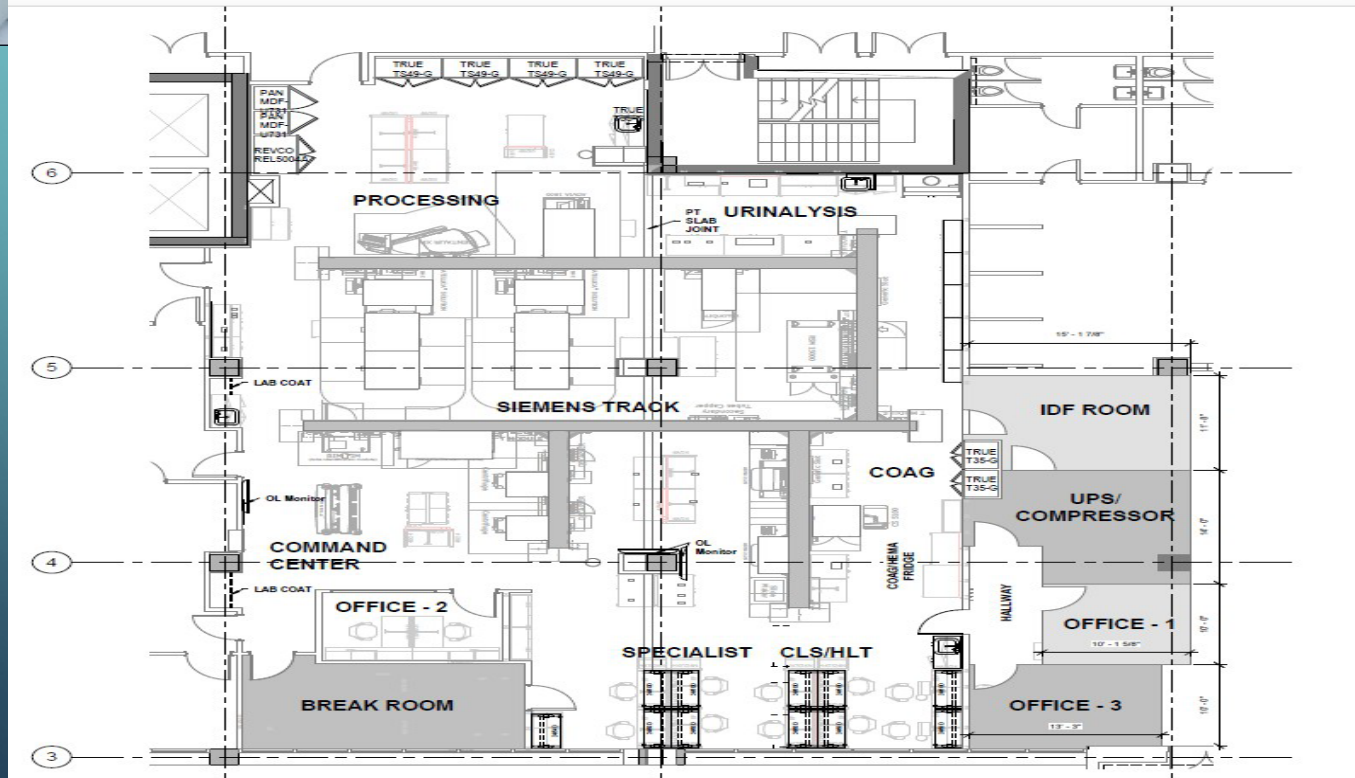
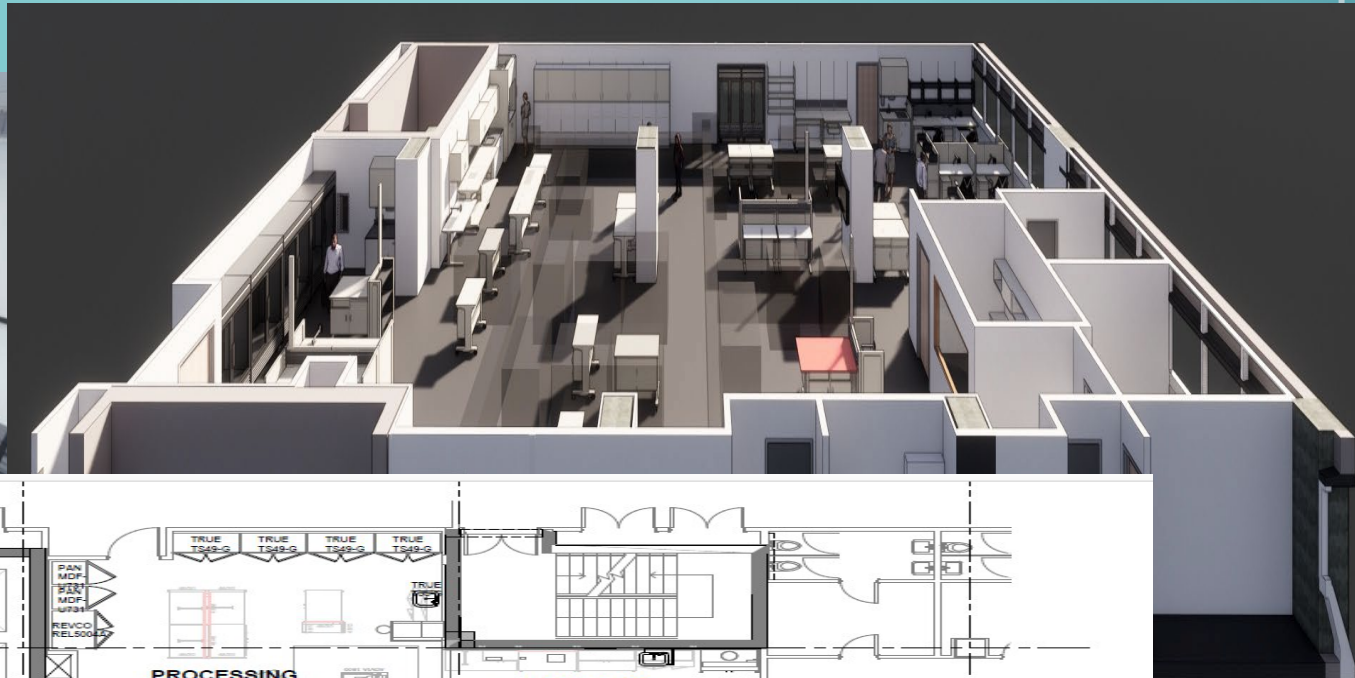
## Mounting projects challenge continues

### Clinical Laboratory Project Timeline FY25-FY26

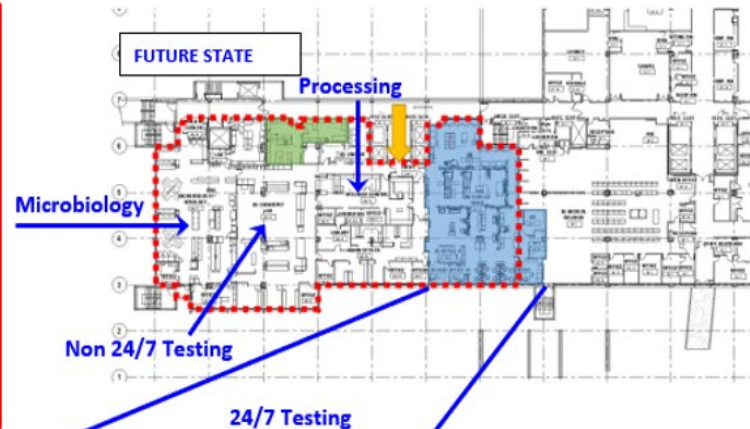
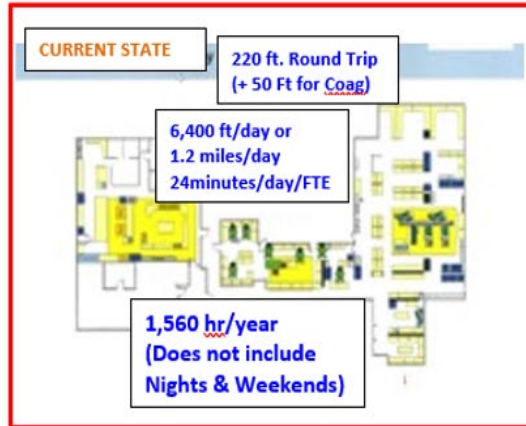


- Building 5 Seismic Retrofit work continues along the West and North sides of the Laboratory space. 14 people re-located to Building 100, 12 more will be moving as the work continues along the windows.
- APTIO Automation line arrived for installation.
- Caresphere, Blood Bank SOFT system, Data Innovations and Epic Beaker all underway at the same time.

# PLAN FOR A CORE LABORATORY - CHEMISTRY AND HEMATOLOGY



CORE LABORATORY PLAN



**Processing**

- Refrigerator
- Freezers
- Pneumatic Tube

**Urinalysis**

- Urine Analysis
- Fume Hood Tests

**Hema/Coag**

- Microscopes
- Stat Coags
- Coag Analyzer

**Offices**

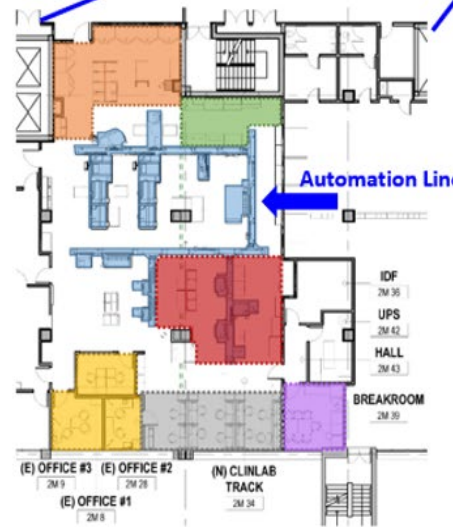
- Managers
- 2 Shared Offices

**CLT/HLT/Spec.**

- 10 Workstations
- Sit-Stand Desks

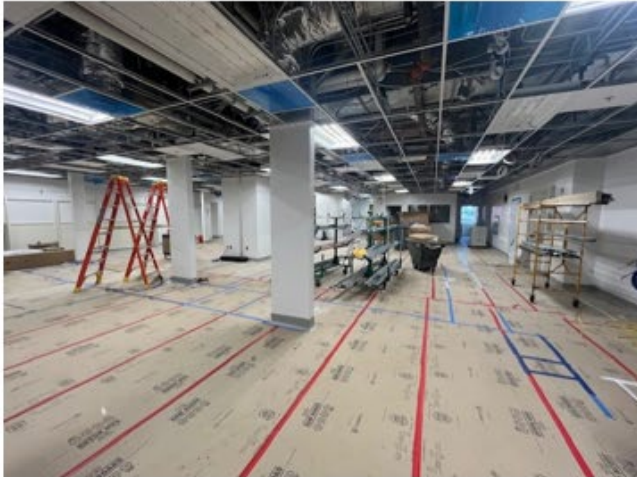
**Breakroom**

- Table for 7
- Sofa
- Refrigerator



## New Core Lab Space

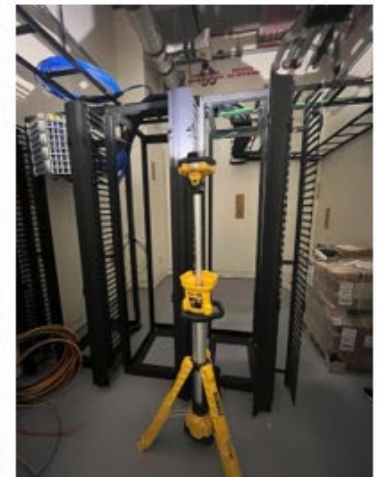
Primary Core Lab (Automation Line)



Testing and Workstation Space



Server Room



Compressor Room / DI Water Supply



Administrative Space



Break Room



# CHALLENGE FOR CHEMISTRY AND HEMATOLOGY LAB

- Navigate Construction Challenges
- Dismantle and move major instruments to new track
- Validate all assays
- Learn automation!



**Core Lab and Automation Line Redesign Project (Current State Temporary Colocalization)**

**TEMPORARY CHEMISTRY AUTOMATION SPACE**



**PARTIALLY CLEARED OUT CHEMISTRY AUTOMATION SPACE**



**SPECIMEN COLLECTION AND MAANAGEMENT (PROCESSING)**



**TEMPORARY HEMATOLOGY CO-LOCALIZATION SPACE**



# GOALS FOR 2024-2025

- **Recruit new Lab Administrator, Blood Bank Medical Director and Microbiology Director**
- **Install new Laboratory Automated Track and set up instruments on track**
- **18 months of work on EPIC Beaker build/testing for Clinical Lab, Anatomic Pathology Lab, and Public Health Lab**
- **Manage budgets, update contracts**
- **Provide Lab testing during retrofitting and major Core Lab projects**



# GOALS FOR 2024-2025

- **Support Leadership and staff during all challenging lab projects!**
- **Manage shortages like shortage of blood culture bottles**
- **Support DPH and hospital initiatives**
- **Start Lab Utilization Committee**



THANK YOU TO ALL IN LAB!!

