

Cytopathology Fellowship

Director: Christina Kong, MD

Education content

The fellow will be based at Stanford for 8 months and at the VA Palo Alto for 4 months with 2 months of elective time that can be spent at either location.

Stanford Rotation

During the rotation at Stanford, the fellow is responsible for running the cytopathology service. This includes daily previewing of non-gynecologic, FNA and gynecologic cases, performing fine needle aspiration biopsies with the cytology attending on-service, and participating in adequacy assessments for image-guided FNAs. The fellow is also responsible for coordinating with the AP residents on-service. Towards the end of the year, the fellow will “junior attend” on the cytology service, signing out cases with the residents which will then be finalized by the cytology attending on-service.

PAVAHCS Rotation

The rotation at PAVAHCS is an opportunity for cytopathology fellows to extend their technical and interpretive cytopathology skills with graduated responsibility and independence. In addition, cytopathology fellows enhance their morphologic skills and cytologic-histologic correlations by assuming graduated responsibility of “junior attending” surgical pathology sign-out. The patient population at PAVAHCS consists predominantly of aging male veterans, although increasing numbers of younger and female patients are being seen and are expected to accumulate in future years. Currently, the prevalence of malignancy is relatively high and advanced states of malignant disease are not uncommon. This setting provides excellent material for the cytologic diagnosis of a wide spectrum of malignant (and benign) disease processes.

Level of supervision

Cytopathology fellows have attending back-up at all times, for all procedures, cytologic interpretations and presentations. As fellows increase their technical fine needle aspiration skills, they assume increased responsibility for independently performing this procedure as well as increased responsibility in assessing adequacy of samples, providing preliminary and final results and presenting cytopathologic findings at multi-disciplinary conferences. The overwhelming majority of cytopathology fellows are PGY4 or beyond, with 3 or more years of anatomic pathology experience. There is no difference in level of supervision or responsibilities between fellows of different PGY levels.

Competency-based goals and objectives

Please see the following pages.

Instructional methods

Instruction is interactive with teaching during daily sign-out at a multi-headed microscope. The faculty will also work with the fellow one-on-one teaching fine needle aspiration technique using props (e.g. pork liver, phantoms) and at the patient bedside. The fellow will additionally learn by observing fine needle aspiration procedures performed by the attending and by participating in clinical discussions with referring physicians. Independent study is an important aspect of the fellowship, and fellows are expected to independently prepare for microscopic sign-out sessions on a daily basis.

Methods of assessment/evaluation

Cytopathology fellows are assessed by the cytopathology and surgical pathology faculty on-service during each rotation, using the Stanford Pathology Department's evaluation tool located at the MedHub website. The fellow is expected to take the three Progression Evaluation of Competency tests that are administered through the American Society of Cytopathology. These multi-choice exams are an objective measure of the fellow's progress over the course of the year.

At PAVAHCS, the site director (Dr. Kristin Jensen) shall be responsible for notifying the program director promptly, of any issue, clinical or academic, that may seriously affect the trainee.

Policies and procedures

Stanford Hospital and Clinics House Staff Policies and Procedures govern the policies and procedures for the Stanford Hospital and Clinics residents during this rotation.

Fellow personal time off guidelines

See policy for all fellows in the Department of Pathology (above).

Educational Goals and Objectives: Stanford

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
Patient care	<p>1) Participate in signout of cytopathologic specimens received in the laboratory</p> <p>2) Understand and observe privacy policies, and participate in all appropriate training</p> <p>3) Understand the implications of the cytologic diagnosis for each specific body site</p> <p>4) Practice fine needle aspiration (FNA) technique using non-human liver in a latex glove and slide smearing under observation by cytology attending on-service</p> <p>5) Perform clinical fine needle aspirations and obtain informed consent, initially under direct observation and supervision</p> <p>6) Read relevant literature on the management of patients with cervical cytologic abnormalities, including indications for HPV testing and different methods available for HPV detection</p>	<p>1) Independently interpret and classify FNA, gynecologic and non-gynecologic specimens, entering a first draft report for attending review at the time of signout</p> <p>2) Know and be able to identify infectious organisms seen in exfoliative cytology</p> <p>3) Know and be able to identify common slide artifacts seen in exfoliative cytology</p> <p>4) Participate in immediate adequacy assessments of various FNA specimens</p> <p>5) Independently perform clinical FNAs, becoming proficient in performing biopsies and in preparing aspirate smears, as well as adequacy assessment and specimen triage</p> <p>6) Understand when to collect material for ancillary studies</p> <p>8) Understand and explain current Consensus Guidelines for management of patients with cervical cytologic abnormalities</p>	<p>1) "Fine Needle Aspiration Technique" DVD by Dr. Britt-Marie Ljung (available online at http://www.papsociety.org/fna.html)</p> <p>2) <u>The Bethesda System for Reporting Cervical Cytology</u> (2nd edition)</p> <p>3) ASCUS-LSIL Triage Study literature: <i>Am J Obstet Gynecol</i> 2003;188:1383-1392 and <i>Am J Obstet Gynecol</i> 2003;188:1393-1400</p> <p>4) Consensus Guidelines: www.asccp.org</p> <p>5) <u>The Bethesda System for Reporting Thyroid Cytopathology</u></p>
Medical knowledge	<p>1) Learn and apply criteria for adequate, sub-optimal and unsatisfactory</p>	<p>1) Organize and present Cytology Noon conference</p>	<p>1) <u>Cibas and Ducatman, Cytology: Diagnostic Principles and Clinical Correlates</u> (2nd edition)</p>

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
	<p>samples, specific to each body site</p> <p>2) Learn diagnostic criteria of malignancy, specific to each body site</p> <p>3) Learn causes of inflammation specific to each body site, including infectious and non-infectious etiologies</p> <p>4) Understand preparatory and processing steps for all types of cytology specimens</p> <p>5) Learn The Bethesda System for Reporting Cervical Cytology and The Bethesda System for Reporting Thyroid Cytology, including criteria for unsatisfactory specimens and quality indicators</p> <p>6) Learn and understand the etiology of cervical squamous intraepithelial lesions</p>	<p>2) Present at Current Issues conference (journal club)</p> <p>3) Understand and apply appropriate use of special stains and/or studies to facilitate diagnosis</p>	<p>2) DeMay, The Art and Science of Cytopathology: Exfoliative Cytology</p> <p>3) DeMay, The Art and Science of Cytopathology: Aspiration Cytology</p> <p>4) Atkinson, Atlas of Diagnostic Cytopathology</p> <p>5) Gray and McKee, Diagnostic Cytopathology</p> <p>6) Geisinger et al, Modern Cytopathology</p> <p>7) Bibbo, Comprehensive Cytopathology</p> <p>8) Holladay, Cytopathology Review Guide</p> <p>9) The Bethesda System for Reporting Cervical Cytology (2nd edition)</p> <p>10) ASCUS-LSIL Triage Study literature: <i>Am J Obstet Gynecol</i> 2003;188:1383-1392 and <i>Am J Obstet Gynecol</i> 2003;188:1393-1400</p> <p>10) The Bethesda System for Reporting Thyroid Cytopathology</p>
Practice-based learning and improvement	<p>1) Be able to explain proper collection methods for FNA, gynecologic and non-gynecologic specimens</p> <p>2) Become proficient at various Stanford</p>	<p>1) Learn how to perform cyto-histo correlations</p> <p>2) Learn how to perform pertinent literature searches</p>	<p>1) Monthly Stanford QA Conference</p> <p>2) Monthly cyto-histo correlation conference</p> <p>3) Cytopathology fellow self-assessment</p> <p>4) Journals (e.g. <i>Cancer</i>)</p>

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
	<p>information systems (e.g., PowerPath, EPIC)</p> <p>3) Comply with all safety regulations</p> <p>4) Become familiar with and adhere to patient safety goals as they apply to cytology (use of two patient identifiers, performing "time-out" confirmation before performing an FNA procedure)</p>		<p><i>Cytopathology, Acta Cytologica, Diagnostic Cytopathology, American Journal of Surgical Pathology, Modern Pathology, American Journal of Clinical Pathology</i> (other journals available online through Lane Library at Stanford)</p>
Interpersonal and communication skills	<p>1) Effectively communicate with all others within and outside the laboratory</p> <p>2) Compose clear and concise pathology reports, with explanatory comments as needed</p> <p>3) Be able to explain the fine needle aspiration procedure to patients, including potential complications of the procedure</p>	<p>1) Learn how to sign-out cases independently</p> <p>2) Learn how to teach fine needle aspiration technique</p> <p>3) Learn to communicate with clinicians and patients by discussing preliminary and final cytologic results with clinicians and patients (as applicable)</p>	<p>1) Act as a "junior attending", signing out cytology cases with residents 3-5 times/week</p> <p>2) "Fine Needle Aspiration Technique" DVD by Dr. Britt-Marie Ljung" (available online at http://www.papsociety.org/fna.html)</p>
Professionalism	<p>1) Participate in all Stanford HIPAA training prior to obtaining computer password and access</p> <p>2) Demonstrate ethical behavior</p>	<p>1) Ensure continuity of care by informing the cytopathology faculty of any pending cases prior to a scheduled absence</p>	
Systems-based practice	<p>1) Become familiar with the cytopathology section of the College of American Pathologists' (CAP) Laboratory Inspection</p>	<p>1) Understand how to write a policy and procedure</p> <p>2) Understand how to prepare for a lab</p>	<p>1) Department-wide annual quality assurance meeting</p> <p>2) Mock CAP inspections or actual CAP inspection (inspections occur approximately once every two</p>

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
	Checklist	inspection	years) 3) www.cap.org

Educational Goals and Objectives: PAVAHCS

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
<p>Patient care</p>	<p>1) Participate in signout of cytopathologic specimens received in the laboratory</p> <p>2) Understand and observe privacy policies, and participate in all appropriate training</p> <p>3) Understand the implications of the cytologic diagnosis for each specific body site</p> <p>4) Learn how to perform a fine needle aspiration (FNA) biopsy</p> <p>5) Understand how patients with cervical cytologic abnormalities are managed</p> <p>6) Learn indications for HPV testing and different methodologies available</p>	<p>1) Learn how to interpret and classify FNA, gynecologic and non-gynecologic specimens</p> <p>2) Know and be able to identify infectious organisms seen in exfoliative cytology</p> <p>3) Know and be able to identify common slide artifacts seen in exfoliative cytology</p> <p>4) Learn how to perform immediate adequacy assessments of various FNA specimens</p> <p>5) Learn how to perform clinical FNAs and become proficient in performing biopsies, slide preparation, adequacy assessment and specimen triage</p> <p>6) Understand when to collect material for ancillary studies</p> <p>7) Understand and explain current Consensus Guidelines for management of patients with cervical cytologic abnormalities</p>	<p>1) Dr. Kristin Jensen available for teaching FNA and slide preparation technique</p> <p>2) Flow cytometry, molecular pathology and cytogenetics sign-out of cytology cases at Hillview</p> <p>3) "Fine Needle Aspiration Technique" DVD by Dr. Britt-Marie Ljung (available at http://www.papsociety.org/na.html)</p> <p>4) <u>The Bethesda System for Reporting Cervical Cytology</u> (2nd edition)</p> <p>5) ASCUS-LSIL Triage Study literature: <i>Am J Obstet Gynecol</i> 2003;188:1383-1392 and <i>Am J Obstet Gynecol</i> 2003;188:1393-1400</p> <p>6) Consensus Guidelines: www.asccp.org</p>
<p>Medical knowledge</p>	<p>1) Learn and apply criteria for adequate, sub-optimal and unsatisfactory</p>	<p>1) Learn how to evaluate medical literature</p> <p>2) Understand and apply</p>	<p>1) Pathology Morning Conference available via teleconference**</p>

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
	<p>samples, specific to each body site</p> <p>2) Learn diagnostic criteria of malignancy, specific to each body site</p> <p>3) Learn causes of inflammation specific to each body site, including infectious and non-infectious etiologies</p> <p>5) Understand preparatory and processing steps for all types of cytology specimens</p> <p>6) Learn <u>The Bethesda System for Reporting Cervical Cytology</u>, including criteria for unsatisfactory Pap smears and quality indicators according to Bethesda 2001</p> <p>7) Learn and understand the etiology of squamous intraepithelial lesions</p>	<p>appropriate use of special stains and/or studies to facilitate diagnosis</p>	<p>2) FNA, gynecologic and non-gynecologic slide and online educational programs as available (e.g., CAP, ASCP, and/or VA medical education programs)</p> <p>3) VA Journal Club</p> <p>4) Cytology textbooks and journals</p> <p>5) ASCUS-LSIL Triage Study literature: <i>Am J Obstet Gynecol</i> 2003;188:1383-1392 and <i>Am J Obstet Gynecol</i> 2003;188:1393-1400</p>
<p>Practice-based learning and improvement</p>	<p>1) Be able to explain proper collection methods for FNA, gynecologic and non-gynecologic specimens</p> <p>2) Become proficient at various VA-based information systems (e.g., CPRS, VISTA</p>	<p>1) Understand how QA is performed at the VA, and participate in QA activities</p>	<p>1) Monthly VA cytology-histology correlation conference (last Wednesday of each month at 11 am)</p> <p>2) <i>Cancer Cytopathology</i>,</p> <p>3) <i>American Journal of Surgical Pathology</i></p>

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
	<p>and Filemaker Pro)</p> <p>3) Understand safety regulations</p> <p>4) Become familiar with and adhere to patient safety goals as they apply to cytology (use of two patient identifiers, performing “time-out” confirmation before performing an FNA procedure)</p>		<p>4) <i>Modern Pathology</i></p> <p>5) <i>American Journal of Clinical Pathology</i></p> <p>(other journals available online through Lane Library at Stanford)</p>
Interpersonal and communication skills	<p>1) Effectively communicate with all others within and outside the laboratory</p> <p>2) Compose clear and concise pathology reports, with explanatory comments as needed</p> <p>3) Be able to explain the fine needle aspiration procedure to patients, including potential complications of the procedure</p>	<p>1) Learn how to present pathology results at a tumor board</p> <p>2) Learn how to sign-out independently</p> <p>3) Learn how to discuss preliminary and final cytologic results with clinicians and patients (as applicable)</p>	<p>1) Present cytopathology findings at the bi-weekly (every two weeks) thoracic tumor board (second and fourth Thursdays of the month)</p> <p>2) In the second half of the year, act as a “junior attending”, signing out surgical cases with a resident one or more times per month</p> <p>3) Instruct anatomic pathology residents on fine needle aspiration technique</p> <p>4) “Fine Needle Aspiration Technique” DVD by Dr. Britt-Marie Ljung”</p>
Professionalism	<p>1) Understand patient privacy restrictions and HIPAA regulations</p>	<p>1) Learn how to effectively communicate with cytopathology faculty, clinicians and</p>	

ACGME competency	Program Goals and Objectives: First Month*	Program Goals and Objectives: Subsequent Months*	Resources
	2) Know what constitutes ethical behavior	support staff	
Systems-based practice	1) Learn how to present at departmental conferences 2) Become familiar with the cytopathology section of the College of American Pathologists' (CAP) Laboratory Inspection Checklist	1) Learn how to analyze cytology case data by observing for trends in sample yield by sampling method and/or operator, non-diagnostic rates, rates of malignancy, and usage of FNA for diagnosis, as well as identifying possible areas of performance improvement	1) Department-wide annual quality assurance meeting 2) Weekly VA microscopic conference (Wednesdays at noon during summer months or 1 pm otherwise) 3) Weekly autopsy (gross) conference (Thursdays at 1:15 pm) 4) www.cap.org

* Time allotted for initial knowledge and skill acquisition may vary depending on the fellow's prior training and individual learning experience. One month is considered to be a goal timeframe for acquisition of introductory knowledge and skill; however, fellows may proceed to more graduated responsibilities in an earlier time interval as determined appropriate by cytopathology faculty.

** For conferences given at Stanford and available by teleconference (polycom and/or Webex) at the VA, please note attendance on the conference calendar posted in the residents' room by initialing on the date of the conference attended.

Stanford/PAVAHCS Required Conference Attendance Summary

All Rotations

Conference	Frequency	Required?	Percent Attendance
Current Concepts (Journal Club)	1x/week	Yes	50%
Pathology Morning Conference	3x/week	Yes	50%
Optional Conferences (Attendance Not Required)			
Pathology Grand Rounds	1x/month	No	N/A

Stanford Rotations

Conference	Frequency	Required?	Percent Attendance*
Cytology Noon Conference	1x/month	Yes	80% (4/5)
Cytology Teaching Conference	2x/month	Yes (starting in September)	100% (given by fellow)
Pathology Gross Conference (FNA session)	1x/month	Yes	80%
Stanford ENT Tumor Board (when fellow is assigned primary responsibility)	1x/week	Yes	100%
Cytology-Histology Correlation Conference	1x/month	Yes	80% (4/5)
Lab Management Conference	1x/month	Yes	60% (3/5)
Surgical Pathology QA Conference	1x/month	Yes	80% (4/5)
Optional Conferences (Attendance Not Required)			
Cytology CME Conference	1x/month	No	N/A

Session Date	Name of Fellow	Topic	Audience

Copy and attach additional pages as needed.

Professional Meetings Attended by Fellows

Meeting Date	Name of Fellow Who Attended	Name of Meeting and Sponsoring Organization

Research Projects

Faculty Mentor/ Senior Author	Subject/Title	Date Project Started	Anticipated Completion Date	Goal for Presentation/ Publication

Please give a brief description of the project below, including research hypothesis, size of study group, stains or special studies to be done, etc.:

Copy and attach additional pages as needed.

