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Introduction to Anatomic Pathology Mini-Elective Spring 2010

<u>Course Dates:</u>	April 5, 12, 19, 26 Mondays, 2:00—4:00 PM
<u>Maximum Students:</u>	4
<u>Class Year:</u>	MS1 and MS2
<u>Course Director:</u>	Larry Nichols, MD
<u>Contact Information:</u>	Larry Nichols, MD nicholsla@upmc.edu 412-647-3936 Pager: 412-392-7376
<u>Registration:</u>	Betsy Nero, Office of Medical Education betsy@medschool.pitt.edu

Description:

Anatomic pathology can be described as the use of tissue examination under a microscope to make diagnoses. It is what most pathologists do most of each workday. This mini-elective will show the students how diagnoses are rendered. It should provide an appreciation of the challenges of the specialty and highlight the rewards of a potential career in pathology. Students will emerge from the elective rotation with a basic knowledge of 8 diseases, many organ-specific, not covered in the first year curriculum. Likely diseases include leukemia, gastroesophageal reflux disease, *Helicobacter pylori* gastritis, colon cancer, usual interstitial pneumonia, lung cancer, mixed germ cell tumor of parotid, and oral squamous cell carcinoma. Some sessions will include radiographs and the gross pathology before the slides to assist in developing a broader perspective on specific diseases. Transportation will be provided to and from the remote sites of the rotation.

During the course sessions, students will be actively engaged in making observations and interpreting information. Comparable to the way in which residents and clinical year students learn through discussing cases, students, faculty and the course director will discuss cases in real time. Though the process of questioning, students will be encouraged to apply what they know and push ahead to develop deeper insights about the diseases, and hone their critical thinking skills (using the Socratic method). Students taking this elective must be ready for being asked challenging questions in front of the group.

Objectives:

- To prepare medical students to be astute users of biopsy results.
- To help medical students learn how and why it takes as long as it does to get a good diagnosis from a biopsy or cytology specimen.
- To give students an appreciation that every anatomic pathology diagnosis comes with a degree of uncertainty and fallibility, and with a differential diagnosis.
- To provide students with a basic knowledge of key features of at least 8 common and important diseases.

- To teach students some specific features of diseases they encounter in the form of tissue in a microscopic biopsy or cytology.

Requirements:

- Active participation in the four course sessions.
- Bring a pathology textbook and notebook to each course session, to look up information and record key observations.

Course Outline:

Introduction to Anatomic Pathology

Course Directors:

Larry Nichols, MD

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Location:

UPMC Presbyterian Department of Pathology
UPMC Shadyside Department of Pathology
UPMC St. Margaret's Department of Pathology

Session 1 – April 5, 2010, 2:00—4:00 p.m.

Hematopathology and Head and Neck Pathology

Location: UPMC Presbyterian Department of Pathology

Instructors: Raja Seethala, M.D., Miroslav Djokic, M.D.

Objectives:

Students will gain an understanding of:

- The appearance of cells in a normal blood smear and a smear with leukemia
- The appearance of normal bone marrow and of bone marrow with leukemia
- The important role of frozen section diagnosis of margins of resection

Format:

The session will include viewing cases with faculty in the frozen section room, the specimen processing room and at a multi-headed microscope, with a variety of diagnostic activities. Students will look up specific diseases as they encounter cases of those diseases and will take notes on key features of those diseases. Students will finish the afternoon with a new rudimentary understanding of at least two diseases.

Session 2—April 12, 2010, 2:00-4:00 p.m.

Genitourinary Pathology and Cytology

Location: UPMC Shadyside Department of Pathology

Instructors: Anil Parwani, M.D., Sara Monaco, M.D.

Objectives:

Students will gain an understanding of

- The challenge of making a diagnosis of prostate cancer on needle biopsy
- The ability to make a diagnosis on fine needle aspiration cytology

Format:

In this session, students will examine microscope slides at a multi-headed microscope. If the opportunity presents itself in the limited 2-hour time frame of the session, students may see a fine needle aspiration. They will see cytology slides of fine needle aspirations. Students will finish the afternoon with a new understanding of at least two diseases.

Session 3—April 19, 2010, 2:00—4:00 p.m.**Thoracic and Gastrointestinal Pathology**

Location: UPMC Presbyterian Department of Pathology

Instructors: Samuel Yousem, M.D., Scott Owens, M.D.

Objectives:

Students will gain an understanding of:

- The difficulty of diagnosing lung cancer on small biopsies
- The challenge posed by the very large number of biopsies in gastrointestinal pathology

Format:

During this session, the students will look at microscope slides of lung pathology with Dr. Yousem. The students will examine microscope slides of gastrointestinal pathology with Dr. Owens. If a frozen section occurs, the students will be able to see that. If a suitably educational surgical specimen comes to the laboratory, the students will be able to see that. Students will finish the afternoon with a new rudimentary understanding of at least two additional diseases.

Session 4—April 26, 2010, 2:00—4:00 p.m.**Community Hospital Pathology**

Location: UPMC St. Margaret's Department of Pathology

Instructors: Jagjit Singh, M.D., Evan Baker, M.D., Smiljana Istvanic, M.D., Anjana Vijayvargiya, M.D.

Objectives:

Students will gain an understanding of:

- The variety of tissue types submitted for diagnosis in community hospital pathology
- The workflow of a busy laboratory and time pressure under which pathologists make diagnoses.

Format:

The students will be engaged in observing specimen processing and examining microscope slides projected from a double-headed microscopes with the staff pathologists, including slides of biopsies, cytology specimens and surgical resections. Since the community hospital has a full range of specimens, diseases they have not seen in the previous three sessions will be selected for presentation. Students will finish the afternoon with a new rudimentary understanding of at least two additional diseases.

References:

The recommended textbook to bring to each session is Robbins Pathologic Basis of Disease, Eighth Edition.

Course Evaluation:

Each student will be asked to complete an evaluation of the course at its conclusion.