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"Can Work Make You Sick?" Occupational Lung Diseases: A Multidisciplinary Approach Mini-Elective 2009

<u>Course Dates:</u>	February 9, 10, 16, 17 Mondays and Tuesdays, 2:00-4:00 PM *February 17 session will run 1:00-5:00 p.m.
<u>Maximum Students:</u>	8
<u>Class Year:</u>	MS2
<u>Course Directors:</u>	Anu Sharma, MD
<u>Contact Information:</u>	Anu Sharma, MD 412-647-5565 sharmaa3@upmc.edu
<u>Registration:</u>	Betsy Nero, Office of Medical Education, betsy@medschool.pitt.edu

Description:

This mini-elective is designed to introduce 2nd year medical students (MS-2) to occupational lung diseases and the impact of these conditions on their clinical practice. The nature of toxic agents and particulate matter at work place, disease causation by these agents and their diagnosis and clinical management will be discussed with a special emphasis on the medicolegal implications and workers' compensation. The students will also explore these conditions in the context of health surveillance, workplace hygiene and prevention.

Objectives:

1. To develop an understanding of the nature and pathogenesis of lung diseases caused by exposure to particulate matter and toxic chemicals in the workplace.
2. To become familiar with common clinical presentations of occupational lung diseases, techniques for diagnosing these disorders and the approaches to their medical management.
3. To develop an understanding of basics of medical care for occupational lung diseases in the context of workers' compensation and regulatory issues.

Requirements:

- Active participation in all five sessions.
- Reading assignment, one article per session.

Course Outline

Occupational Lung Diseases: A Multidisciplinary Approach

Course Directors:

Anu Sharma, MD

Faculty:

Department of Pathology:

Anu Sharma, MD

Tim Oury, MD

Department of Pulmonary and Critical Care Medicine:

Christopher Faber, MD

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Location:

All sessions

Scaife Hall, Rooms 349 A&B

Session 1: February 9, 2009

Introduction

Instructors: Anu Sharma, MD; Chris Faber, MD

- Overview and classification of Occupational lung diseases.
 - The students will be introduced to various airborne hazards encountered in a work place setting.
 - The pathobiology and mechanism of injury will be discussed.
- Workplace hygiene and medical surveillance.

Session 2: February 10, 2009

Evaluation by the Pulmonary Clinician

Instructor: Chris Faber, MD

A hands-on interactive exercise in history-taking and case evaluation of a "demo patient" with suspected exposure to particulate dust at work place. This session will highlight the following:

- When to suspect an occupational lung disease.
- What questions to ask to establish potential occupational exposure?
- Adjunctive testing: pulmonary function testing, radiological evaluation.
- Need for tissue diagnosis.
- Pulmonary impairment and disability evaluation.

Session 3: February 16 2009

Lung biopsy specimen: Pathology of occupational lung disease

InstructorS: Anu Sharma, MD and Tim Oury, MD

What does a lung biopsy tell you about occupational lung disease?

- Gross appearance of the lungs exposed to dust and toxins.
- Exposure to "dust": varying microscopic presentations, can you spot silicates, asbestos, coal dust, beryllium, or hard metals on a glass slide?
- So you identified the particulate matter on tissue, can you identify it's source: An introduction
- to advanced technologies utilized in lung particulate analysis.

Session 4: February 17, 2009

Field Trip to a NIOSH Laboratory

Instructors: Anu Sharma, MD; Tim Oury, MD