

**SEMINAR IN INFECTIOUS DISEASES - 2020**  
**Course Schedule**  
**UTHealth GSBS Course No. GS07 1731**  
**Wednesdays from 12-1 via Zoom meeting (Citywide Conference) or WebEx (Class Discussions)**  
 Course Director:  
 William R. Miller, M.D. ([William.R.Miller@uth.tmc.edu](mailto:William.R.Miller@uth.tmc.edu)) Office: (713) 500-6760  
**C = case; A = article**

<b>Date</b>	<b>Venue</b>	<b>Topic</b>
<b>Sept. 2</b>	WebEx	Introduction
<b>Sept. 9</b>	Zoom	Citywide ID Grand Rounds 1
<b>Sept. 16</b>	WebEx	Discussion of Cases/Articles 1
<b>Sept. 23</b>	Zoom	Citywide ID Grand Rounds 2
<b>Sept. 30</b>	WebEx	Discussion of Cases/Articles 2
<b>Oct. 7</b>	WebEx	Science in the time of COVID-19 Part I: Diagnostics
<b>Oct. 14</b>	WebEx	Science in the time of COVID-19 Part II: Therapeutics and Vaccines
<b>Oct. 21</b>		<b>No Class -- IDWeek2020</b>
<b>Oct. 28</b>	Zoom	Citywide ID Grand Rounds 3
<b>Nov. 4</b>	WebEx	Discussion of Cases/Articles 3
<b>Nov. 11</b>	Zoom	Citywide ID Grand Rounds 4
<b>Nov. 18</b>	WebEx	Discussion of Cases/Articles 4
<b>Nov. 25</b>		<b>No Class -- Thanksgiving</b>
<b>Dec. 2</b>	WebEx	Final Discussion

## **SEMINAR IN INFECTIOUS DISEASES 2020**

The Seminar in Infectious Diseases is intended to be a bridging course in which students gain a perspective of the clinical side of infectious diseases and the potential application of this insight to basic research. The course includes the following:

- Attendance at the Citywide Infectious Disease Grand Rounds and Journal Club.
- Student presentations on both an infectious disease case (with use of references) and a review of a scientific article. Students will be assigned to present on a case from Citywide or article on an alternating basis.
- Participation in reviewing literature and discussing impact of basic science and clinical research during the COVID-19 pandemic.

These formats will be interspersed throughout the semester.

The student presentations should be 20 to 30 minutes in length, and utilize a Powerpoint presentation to highlight key information and points. Please provide a handout in .pdf format (to be distributed by email) addressing the major points of the case or article.

General outlines of the two formats for student presentations are provided below. Please contact me if you have any questions, suggestions or comments.

Dr. Miller 713-500-6757 [Willam.R.Miller@uth.tmc.edu](mailto:Willam.R.Miller@uth.tmc.edu)

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**FORMAT # 1: Grand Rounds Review.** Attend one of the City-Wide Infectious Disease Conferences held every Wednesday at Noon in the auditorium behind the elevators on the ground floor of the DeBakey Building, Baylor College of Medicine. (This building is the white building next to the new Baylor Graduate School Building and across the street from the Jones Library). **\*Note: due to COVID-19 these sessions are being held virtually, the link will be distributed weekly for attendance.** Usually three cases are presented as unknowns, a differential diagnosis is made, and the outcome and ramifications of the case are discussed. You should make notes during the conference to help you glean the information. **Note that the infectious disease aspects are generally covered in detail, whereas the microbiology may be discussed briefly, if at all. Part of our job is to investigate the microbiologic aspects of the disease and incorporate them into your interpretation and description of the case.**

**Choose ONE of the cases presented:**

- a) Briefly describe the case, concentrating on the clinical manifestations (patient's symptoms + findings from examination and tests) that are most relevant. Use medical terms where you can, but define them in a few words. Include the diagnosis, treatment, and outcome (if presented).
  
  - b) Using the articles cited in the case description, microbiology texts, and other sources, describe the organism(s) that caused the infection in this case. What is the normal course of disease, and how did they differ in this case? What treatments are generally effective, and were they effective in this patient?
  
  - c) Discuss the mechanisms of pathogenesis of this organism. Is this pathogen invasive, toxigenic, or both? Where does this organism fall in the spectrum of host dependence? For example, is it a obligate pathogen of humans, an epizootic pathogen, or an opportunistic infection with a commensal organism? Describe any known virulence factors for this organism (or related organisms, if not much information is available) and how they may fit into the disease manifestations in this case.
  
  - d) On the other side of the host/pathogen interaction, what patient factor(s) contributed to the disease process? For example, did the patient have cancer, AIDS, hereditary immunodeficiency or some other condition affecting the immune system? How did the immune response (or lack thereof) affect the outcome of this case? Did the immune response actually contribute to the pathogenesis of this disease (i.e. is immunopathology involved)? Describe immunization or other immunologic procedures (such as passive transfer of antibodies) used in the prevention or treatment of this disease.
  
  - e) Cite any references you used in your analysis.
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**FORMAT #2: Scientific Article Review.** Select a scientific paper with infectious disease implications from a medical or scientific journal. Suggested articles on several topics will be available to choose from on Blackboard, or you may select your own. The article should be a primary research article, but can be either a medical case presentation or a basic science study. Provide a copy of the article you selected with your assignment.

**Answer the following questions:** (Note: these instructions were devised initially for medical students, so they may be more detailed than you need.)

a) What are the central questions or hypotheses addressed by the article? What is the background information on this topic, and how did it lead the authors to investigate it? (Use the title, abstract, and introduction.)

b) What scientific or medical approaches were taken to answer the question or hypothesis? First, describe the overall rationale of the approach, and then briefly describe the scientific methods used. (introduction and materials and methods sections).

c) What results were obtained? What answers did they provide to the questions or hypotheses posed in the beginning of the article? (Results section).

d) What are the implications of their findings, particularly as they relate to our understanding of infectious disease? Be sure to include a thorough discussion of the infectious disease implications, even if the authors do not describe them in detail in the paper. (Discussion section).

e) Did you find the article convincing? Why or why not? What did you find that was particularly important, novel, interesting, or insightful about the article? In what ways do you think the scientific approach or interpretation could have been improved?

f) Cite any additional references you used in your analysis.

You may need to refer to articles in the Literature Cited section of the paper to obtain specific background information or methods.

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