January 10, 2018

To: Medical Honors Students and Faculty

**From: William Kem (Seminar Coordinator)**

**Subject: Jr. Honors Pharmacology Seminar Schedule (NEW DRAFT)**

Welcome to the **2018 Medical Honors Pharmacology Seminar** course. In this seminar you will become very familiar with pharmacology, the science which aims at understanding drug action. This course is **not** meant to be a comprehensive survey of modern therapeutics, which you will experience during your first two years of medical school. The present course will serve as a historical and scientific introduction to this important medical science. The seminar format allows you to participate as a teacher as well as student!

Every week there will be a reading assignment (usually from the textbook (Katzung, 13th edition, available in the HC book store and also online). It is expected that each student will have done this reading before the seminar in order to participate in the discussions and to follow the focused presentations. Goodman and Gilman The Pharmacological Basis of Therapeutics, 13th Edition is an excellent reference text that is also available online.

The format of the weekly seminar is arranged to maximize participation of all the students:

**1) Twelve students (sometimes 13, depending on the number of focused presentations) will be responsible for making short presentations (approx. 5 min.) pertaining to some basic question concerning the pharmacology of the subject being considered.** The purpose of these presentations is to discuss some basic concepts relating to the major subject being considered. The questions will be provided to the students at least one week before each seminar. Each student will obtain information and ideas for answering their assigned question from either Katzung (the textbook) or Goodman and Gilman (Reference book). Both of these texts are available on line at UF Libraries. Occasionally your faculty mentor may suggest another source for obtaining the answers. Preparation for the short presentations will generally not require much if any faculty mentoring, although if you really need some assistance don’t hesitate to contact the mentor. These presentations will be oral and will not need to use Power Point slides (if you use PPP slides, please limit them to 1 or 2 per short question). Please deliver your short presentations in your own words rather than reading something directly from a text.

**2) Students making the major presentations will focus on some interesting facet of the subject that is chosen with the assistance of the mentor. This presentation will be based on some other literature sources as well as information in the textbooks.** The intended duration of each focused presentation will be approximately 20 minutes. These focus presentations will use Power Point slides, which are to be emailed to Dr. Kem by 11AM the day of the seminar.

**Each student presenting a focused presentation is expected to prepare and electronically distribute (to fellow students and involved faculty) a brief outline of their presentation and one group discussion question by Friday of the week before the presentation.** At the end of each focused presentation, the presenting student will lead a short discussion of the group discussion question by the rest of the class.

**It is absolutely essential that the students scheduled for the “focus” presentations meet with their mentor(s) several weeks in advance (For the first one, this is obviously not possible!) of the presentation to select the Focus and plan its Content; the second meeting to discuss the Focus after the student has done some reading, and a final meeting to go over the presentation in detail and ensure that appropriate and well-executed audiovisuals are to be presented. It will be the responsibility of the student to arrange these meetings with the mentor.**

A 10-15 minute (time permitting) Intermission will take place at an opportune moment roughly midway in the seminar.

**Since we meet only once a week, be prepared to participate in the seminar until 5 PM!**

As in the past, each student will write a paper (Max. length, 12 pages, double-spaced, excluding bibliography and figures) based on one of the two focused presentations he or she makes during the semester, which needs to be submitted to the course coordinator by the last seminar day (**April** **11**), unless the student is presenting a focus that day and wishes to use it for the paper; an extra week is available for preparing such papers.

Student grades for the course will be based upon the two focus presentations (40%), oral short presentations (20%), paper on one of the focus presentations (20%), AND participation in seminar discussions (20%). The paper will be evaluated by the mentor and course coordinator. Please provide two hard copies of the paper as well as sending an electronic copy to these two persons.

**Textbooks:**

Goodman and Gilman's The Pharmacological Basis of Therapeutics 13th Edition by Laurence Brunton, Bjorn Knollman,‎ Randa Hilal-Dandan 2017

Publisher: McGraw-Hill Education

ISBN 978-1259584732

<https://www.amazon.com/Goodman-Gilmans-Pharmacological-Basis-Therapeutics/dp/1259584739/>

Basic and Clinical Pharmacology 14th Edition by Bertram G. Katzung and Anthony J. Trevor 2017

Publisher: McGraw-Hill Education

ISBN 978-1259641152

<https://www.amazon.com/Basic-Clinical-Pharmacology-Bertram-Katzung/dp/1259641155/>

***Year 2018 Medical Honors Pharmacology (MDU 4002) SCHEDULE***

University of Florida College of Medicine

**Course Coordinator: Dr. William Kem**

**Wednesdays, 2:00-5:00 PM, Room R5-231**

## Date Subject Faculty Coordinator

Jan. 10 Course Introduction and Scheduling of seminar presentations; students will meet with faculty

mentoring their first presentation at about 3 PM.

Jan 17 Drug-Receptor Interactions I (Nicotinic Acetylcholine Receptors: ) Dr. Kem Drug-Receptor Interactions II ( G-Protein Coupled Receptors: ) Dr.Urs Drug-Receptor Interactions III (EGF and other Kinase Receptors: )  Dr. B. Law

Jan 24 Pharmacokinetics I (Blood-Brain Barrier: ) Dr. Kem

Pharmacokinetics II (Renal Excretion of Drugs; ) Dr. Kem

Pharmacokinetics III (Biologicals: ) Dr. Rodriguez

**Jan. 31** Autonomic Pharmacology (Neuromuscular Pharmacology: )Dr. Kem Autonomic Pharmacology (Treatment of Asthma or Bladder Dysfunction: ) Dr. Kem

Autonomic Pharmacology (Treatment of Hypertension: ) Dr. Tumer

**Feb. 7** Drug Metabolism I (Pro-drugs: ) Dr. Kem

Drugs and Liver I (Hepatic Mitochondrial Function and Drug Toxicity: ) Dr. Kim

Feb. 14 Therapy of Infectious Disease I (TBA: ) Dr. Rowe

Therapy of Infectious Disease II (Drug Resistance: ) Dr. Rowe

Therapy of Infectious Disease III (Topic: ) Dr. Rowe

Feb.21 Cancer Therapy I (Conventional Cancer Therapies: ) Dr. Fletcher

Cancer Therapy II (Breast and Prostate Cancer Therapies: ) Dr. Shiverick

Cancer Therapy III (Recently Developed Drug Therapies: ) Dr. Guryanova

Feb. 28 Cardiovascular Pharmacology I (Lipid-Lowering Drugs: ) Dr. Martens Cardiovascular Pharmacology II (Anti-Arrhythmic Drugs: )  Dr. Martens

**(No Seminar on Mar. 7 due to Spring Break)**

**Mar. 14** Gastrointestinal Pharmacology (Treatment of Gastric HCl Secretion: ) Dr. M. Law Olfactory and Taste Receptors (TBA: ) Dr. Munger

Mar. 21 CNS: Stimulant and Depressant Drugs (Topic: ) Dr. Papke

CNS: Pharmacology of Dopamine (TBA: )  Dr. Torres

Mar. 28 Chemotherapy of Parasitic Disease I (TBA: )  Dr. Kima Chemotherapy of Parasitic Disease II (TBA: ) Dr. Kima

April 4 Local Anesthetics (Neuropathic Pain: ) Dr. Kem

General Anesthetics (TIVA or Gases: ): Dr. Morey

April 11 NSAID Analgesics (Mechanism of Action of Acetaminophen: ) Dr. Harrison Opioid Analgesics (Efficacy of opioids in chronic pain: ) Dr. Harrison

Opioid Addiction (How to Treat, What to do? ) Dr. Levitt

### List of Faculty Participants

##### Faculty Office Phone Number E-Mail

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