

## Seminars in Pharmacology 2012 (BIOM/PHAR 275)

### Winter 2012 Course Information

#### *From Molecular Mechanisms to New Medications: The Science of Drug Discovery*

#### Instructors

Michael Gilson, M.D. Ph.D.  
Professor, PSB, Room 3224  
[mgilson@ucsd.edu](mailto:mgilson@ucsd.edu)

J. Andrew McCammon, Ph.D.  
Prof. of Pharmacology and Chem & Biochemistry, Urey Hall, Rm 4246  
[jmccammon@ucsd.edu](mailto:jmccammon@ucsd.edu)

#### Course Objectives

This seminar course will provide varied perspectives of the challenging but rewarding process of translating basic biomedical science to new therapeutics, with a focus on small molecule drugs. Planned topics include approaches to the discovery of active compounds, such as high throughput screening, natural products, and molecular design; what makes a compound a "good drug"; drug metabolism; and the discovery of CNS and anticancer drugs in the university setting.

#### Course Format

Course topics will be covered by a combination of assigned readings, discussion in class and lecture/seminar. Attendance, participation in class discussions and final homework assignment will be the basis for credit.

#### Course Schedule

The discussion sessions will be held on Mondays from 12:30-2:30 PM in CMME 2047, except for Monday Holidays and Tim Tully Seminar (2/7/12), in which case class will be held on the previous Friday, at the same time and location. Seminars are on Tuesdays at 12 noon in Leichtag 107.

<b>Mon, Jan. 9</b>	<b>12:30- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Jan. 10</b>	<b>12:00 PM Leichtag 107, Seminar</b> <b>Deepak Dalvie, Pfizer (Host: TBD)</b> <i>Drug Metabolism and Its Role in Discovering Drugs</i>
<b>Friday, Jan. 13</b>	<b>12:30- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Jan. 17</b>	<b>12:00 PM Leichtag 107, Seminar</b> <b>Daria Mochly-Rosen, Stanford (Host: TBD)</b> <i>Molecular Mechanisms of Cell Protection: from Basic Science to the Discovery of Allosteric Agonist as Potential Drugs</i>
<b>Mon, Jan. 23</b>	<b>12:30- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Jan. 24</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>Adah Almutairi, UCSD (Host: TBD)</b> <i>The Art of Falling Apart: Exploiting Nanomaterial Disassembly for Pharmacy and Medicine</i>
<b>Mon, Jan. 30</b>	<b>12:30- 2:30 PM, CMME 2047 Discussion</b>
<b>Tues, Jan. 31</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>John Lazo, University of Virginia (Host: TBD)</b> <i>Dual Specificity Phosphatases as Disease Drivers</i>
<b>Friday, Feb. 3</b>	<b>12:30- 2:30 PM, CMME 2047 Discussion</b>
<b>Tues, Feb. 7</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>Tim Tully, Dart Pharmaceuticals (Host: TBD)</b> <i>Memory Enhancers</i>
<b>Mon, Feb. 13</b>	<b>12:30- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Feb. 14</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>Robert Abraham, Pfizer (Host: TBD)</b> <i>Drugging the PI3K-mTOR Pathway: Bridging Preclinical Biology to Clinical Efficacy in Cancer Patients</i>
<b>Friday, Feb. 17</b>	<b>12:30- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Feb. 21</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>Jeff Conn, Vanderbilt (Host: TBD)</b> <i>Allosteric Modulators of GPCRs as a Novel Approach for Treatment of CNS Disorders</i>
<b>Mon, Feb. 27</b>	<b>12:30 PM- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Feb. 28</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>Martha Head, GlaxoSmithKline (Host: TBD)</b> <i>Does My Raise Depend on This? Quantifying Expertise in Computational Chemistry</i>
<b>Mon, Mar. 5</b>	<b>12:30- 2:30 PM, CMME 2047, Discussion</b>
<b>Tues, Mar. 6</b>	<b>12:00 PM, Leichtag 107, Seminar</b> <b>Raymond Anderson, University of British Columbia (Host: TBD)</b> <i>Discovery of Bioactive Marine Natural Products - In Search of Drug Leads and Cell Biology Tools</i>
<b>Mon, Mar. 12</b>	<b>Papers Due?</b>