CHEM 450: BIOMEDICAL SCIENCE RESEARCH SEMINARS AND PRESENTATIONS

FALL QUARTER 2015 CALL NUMBER: 92794

Fridays 1:00 – 2:00 (12:30-3) PM Salazar Hall E184 and ASCB 132; Reception immediately following

California State University, Los Angeles

COURSE INSTRUCTORS

Dr. Krishna Foster  Annenberg SCB 222E  (kfoster@calstatela.edu; 343-2309)
Dr. Carlos G. Gutierrez  Annenberg SCB 221C  (cgutier@calstatela.edu; 343-2356)
Prof. Vicki Kubo-Anderson  Annenberg SCB 221E  (vkuboa@calstatela.edu; 343-2324)
Dr. Margaret Jefferson  Annenberg SCB 323B  (mjeffer@calstatela.edu; 343-2059)
Dr. Jamil Momand  Annenberg SC La Kretz 270  (jmomand@calstatela.edu)
Dr. Robert Vellanoweth  Annenberg SC La Kretz 272  (vllnwh@calstatela.edu; 343-2148)
Dr. Linda M. Tunstad  Annenberg SCB 222  (ltunsta@calstatela.edu; 343-2307)

COURSE GOALS

The goal of this course is that you become an active participant in dialogues with seminar presenters through development of your listening and critical skills. Seminars are an important medium for presentation of new scientific results, frequently before they have been published. You will learn to critically evaluate new information presented in the seminar format, and participate in the give-and-take of scientific discourse.

This weekly seminar series is by design multidisciplinary, and provides opportunities to broaden your scientific perspectives. These seminars cover the work of academic and industrial biomedical, behavioral, and mathematical scientists. There are also opportunities for you to develop your own communication skills through presentation in poster sessions and oral talks. The course requires your active participation.

FALL QUARTER SEMINARS

The seminar series schedule is listed at http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm, the MORE Programs’ website. Clicking on a seminar title links you to an abstract provided by the speaker, and bibliographic reference to pertinent publications. Clicking on the speaker’s name connects you to the speaker’s website. Clicking on the presenter’s department links you to the speaker’s departmental webpage. Come to each seminar prepared to participate. Please check this website throughout the quarter. It will be updated as missing information (such as seminar abstracts, titles) is received.

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Speaker Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 25</td>
<td>Planning for the Future of MORE</td>
<td>Dr. Carlos Gutierrez, Director, and Student Advisory Committee, MORE Programs</td>
</tr>
<tr>
<td>October 2</td>
<td>Pathways affecting the fidelity of chromosomal break repair and their relevance to cancer biology</td>
<td>Professor Jeremy Stark, Department of Radiation Biology, City of Hope</td>
</tr>
<tr>
<td>October 9</td>
<td>Redirecting Small Molecules for Malaria: Inhibitors of Enoyl-ACP Reductase for Plasmodium falciparum (PfENR)</td>
<td>Lorilee Tallorin (Cal State L.A. RISE MS to PhD alum), Department of Chemistry, UC San Diego</td>
</tr>
<tr>
<td>October 16</td>
<td>A Systemic Approach to Rejuvenating the Aging Brain</td>
<td>Professor Saul Villeda, Department of Anatomy and The Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research, University of California San Francisco</td>
</tr>
</tbody>
</table>
October 23  
**Translational Research and Drug Discovery in Academia**  
ASCB 132  
Professor Daryl L Davies, Clinical Pharmacy and Pharmaceutical Econ. And Policy, School of Pharmacy, USC

October 30  
**Targeted RNA interference screens as a systems approach to biological questions**  
ASCB 132  
Professor Nathan Lanning, Department of Biological Sciences, Cal State L.A.

November 6  
**Using fruit flies to understand how synapses maintain stable function**  
ASCB 132  
Professor C. Andrew Frank, Anatomy and Cell Biology, University of Iowa

November 13  
**Is the DYW-deaminase a dinuclear RNA editing enzyme?**  
ASCB 132  
Professor Michael Hayes, Department of Chemistry & Biochemistry, Cal State L.A.

November 20  
**TBA**  
ASCB 132  
Professor Armen Zakarian, Department of Chemistry & Biochemistry, UC Santa Barbara

December 4  
**TBA**  
ASCB 132  
Lalena Vallenoweth, Andrew W. Mellon Conservation Education Fellow at the UCLA/Getty Graduate Conservation Program

**Administrative Notes**

Every seminar is critiqued as a developmental activity. Each session you will receive a form to critique the seminar. The completed critique form, including your signature, is the official attendance document, and record of your development as an active listener. *Please be sure to turn it in at the conclusion of the seminar to get credit for your participation in that seminar (it will not be accepted at any other time).* You must pick up an evaluation form at the start of the seminar to get credit. If there are multiple speakers, a critique form will be provided for each.

The seminars start at 1 PM. Please plan to be there on time, particularly as a courtesy to the speaker.

Refreshments are served immediately after the seminar to encourage you to spend some time with the seminar presenter and with your colleagues and attending faculty members.

**Cell Phones**

Please put your cell phones on “vibrate” mode or turn them off during seminar. If you receive a call, ignore it if possible, and call back after the seminar. If it is an emergency and you must take it, discreetly exit the lecture hall, and return after the important call.

**Your Role as Active Participant**

You are not as part of a passive audience in the Biomedical Sciences Seminar Series, but rather an active participant. Indeed in its best result, the seminar is a dialog between you and the presenter. You are expected to be actively involved extracting information from the seminar and contributing to the dialog. Look at seminars as opportunities to explore interesting topics in a more active and satisfying mode than either reading or listening to lectures. Research on learning shows that we remember far more of what is orally discussed than what is passively listened to or read.

To get something out of a seminar, be prepared to put something in:

a) **Do prior reading.** As background, the speaker provides a seminar abstract that includes bibliographic references to pertinent publications. In advance of the seminar, go to the MORE Programs Biomedical Sciences Seminar web page ([http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm](http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm)) and
click on the seminar title. If you come unprepared to the seminar, you will have no background to be part of the discussion that is the essence and purpose of the seminar.

b) **Listen carefully.** An important, and obvious, requisite for success in getting a lot out of a seminar is active listening. Stay focused on the topic.

c) **Take notes** - particularly with a view to points on which you would like to get further clarification or support. An article on taking effective seminar note is attached to this syllabus: Walker, J.H. “Taking notes in seminars - a new improved method” *Biochemical Education* 1999, 27, 211-213. You may wish to start keeping a journal of your seminar notes.

d) **Ask questions.** Be prepared to make your scientific views known. You may feel ill informed or not entirely comfortable with the topic, but what you ask may prompt someone else to speak, and then someone else. Through this process, you and your colleagues will begin to become better informed.

e) **Present a Poster.** In the Winter Quarter half of MORE and LSAMP-BD participants will present at the MORE Programs Poster Session; the other half in the Spring. This is detailed later in this syllabus.

f) **Present a Seminar.** Graduating seniors and second year MS students present their work in the Spring Quarter. Students that participate in off-campus research present generally in the Winter Quarter.

g) **Suggest.** We welcome suggestions for speakers or topics for future seminars. Please send these to Dr. Carlos Gutierrez at cgutier@calstatela.edu. We also welcome suggestions for improvement of the series. Contact any of the course instructors, or alternatively use the “Comments or Suggestions” box on the seminar webpage http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm.

**OFF-CAMPUS SEMINAR OPPORTUNITY**

You may substitute one seminar in the schedule for one in your discipline at another institution. UCLA, UC Irvine, UC Riverside UC Santa Barbara and UC San Diego as well as USC (main campus and health sciences campus), the City of Hope, and Caltech are likely sites. Peruse their seminar web pages for inspiration.

If you plan to take advantage of this opportunity, please let your MORE Coordinator know by email at least one week in advance; copy your faculty research mentor. To receive credit for attending that seminar, you must turn in a completed seminar evaluation form that has been countersigned by your faculty research mentor to the MORE Programs Office not later than a week after the missed Cal State LA MORE seminar.

Seminar websites for UCLA, UC Irvine, UC Riverside UC Santa Barbara, UC San Diego, USC and Caltech are at the end of this syllabus. Website page URLs change frequently. If you experience difficulties accessing the seminars web pages with the provided URLs, just go to the home page of the institutional department and click on their seminars button.

**HOSTING THE SEMINAR SPEAKER**

Participating students manage the seminars. A student will be asked to be the official host for the speaker. We will try to match the student host’s interest with the seminar speaker’s research area. The student host will organize the group of interested students that take the seminar speaker to lunch (the MORE Programs Office will provide the funds for lunch, see below). The student host introduces the speaker before the seminar, and manages the question and answer session. The student host gives preference to student questions, allowing faculty members to ask questions after student questions are exhausted. If you are interested in serving as host to a particular off-campus speaker, let Lisa Bautista know (lbautis3@exchange.calstatela.edu) as soon as possible, but not later than one two weeks prior to the presentation of the seminar. Student hosts for on-campus speakers will be selected from the presenter’s research group.

**LUNCH OR DINNER WITH THE SEMINAR SPEAKERS**

The Dean of the Cal State LA College of Natural and Social Sciences provides a small fund for interested students to accompany seminar speakers to lunch/dinner. The intent is to give interested students opportunities to meet and interact with the seminar speaker in an informal setting and continue discussions about research topic or PhD study. If you are interested in lunch or dinner with a particular speaker, please let Lisa Bautista know (lbautis3@calstatela.edu) not later than one week prior to the seminar.
WINTER 2016 POSTER SESSION

To give students an opportunity to develop skills presenting their research results in a poster format, and to give all participants in the MORE programs a sense of the breadth of research conducted by their colleagues, all MORE students participate in the two MORE Programs Poster Sessions each academic year (one in the Winter quarter, one in the Spring), either as a poster presenter, or as a critic of the presentations.

All students will present a poster on their research results on a schedule where the most experienced half of students present in the Winter, the other half in the Spring. Only those individuals who have just joined their research group as a freshman, and other individuals who have been in the MORE Programs less than two quarters, will have their presentations delayed until the next academic year.

Winter Quarter Presenters: you will be notified by Monday, October 19, by your Coordinator if you are scheduled to present in the Winter. Please email your poster title and an abstract to Dr. Carlos Gutierrez (cgutier@calstatela.edu) not later than Friday December 18 (and copy Maria Manzanares at mmanzan@calstatela.edu) so these are available on the website in advance of the poster session. If you are not assigned to present in the Winter, you will be assigned for presentation in the Spring.

Plan to have your poster printed on our large-format printer well in advance, as there will surely be a rush (by 20-25 of your colleagues) on its use close to the poster session date. If you are presenting in the Winter Quarter email your file ready for printing to Matt Anderson csla_posters@yahoo.com not later than noon Friday, January 22.

Be sure your poster is up in its assigned space in the lobby of La Kretz Hall by 12:30 PM and that you are there ready to discuss your work and answer questions at 1PM. Plan on staying at your poster till 2:30 PM

2-3 Minute Presentation. One of the course instructors will come by your poster. Since there are some 20-25 presentations, they will not have much time to spend at your poster. Please be ready to give a Three Minute Presentation that addresses the following:

a. What is the hypothesis that organizes your research
b. What experiments did you perform to test the hypothesis
c. What do you think the results mean, and what further studies do they suggest.

This is a difficult exercise that will likely take you some time to accomplish. It is difficult to organize your thoughts into such a limited time so that they convey your sense of the work to a scientifically educated but non-expert audience. Achieving the clarity that the exercise demands will train you in precise and effective communication that will serve you well as you prepare for conferences, graduate school interviews, or talking about your work with peers and faculty members. The URLs below offer tips on preparing research posters:


Creating a Poster Using MS PowerPoint University of Washington School of Public Health and Community Medicine http://depts.washington.edu/mphpract/ppposter.html

Creating Effective Poster Presentations George R. Hess (NC State University) and Leon H. Liegel (Oregon State University). Includes several examples incorporating various design features along with additional presentation and design resources. http://www.ncsu.edu/project/posters/IndexStart.html

Creating Posters for Humanities & Social Sciences Lewis-Clark State College. Suggestions on poster design and presentation. http://www.lcsc.edu/ss150/poster.htm

Creating Large Format Posters Using PowerPoint Department of Biomedical Communications, Wake Forest University School of Medicine. http://www.wfubmc.edu/biomed/tipsheets/ppt_poster.html

Guidelines for Preparing Scientific Posters in the Digital Age SciFor Inc. -- some good design ideas from an online service that offers poster preparation and printing services. Their Poster Gallery offers some good design examples. http://www.scifor.com/Guidelines.htm
Creating a Large-Format Poster in PowerPoint, Social Science Research Lab, Brown University.  
http://ssrl.brown.edu/support/design/large_posters

If you ARE NOT scheduled to present a poster at a specific poster session, you are required to do on-the-spot brief critiques of two posters, and a more detailed analysis of a third poster. Instructions for the brief critiques, and for the more detailed analysis of posters are available on the Biomedical Sciences Seminar Series webpage <http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm>. The two critiques are due immediately after the poster sessions. The Analysis is due a week after the seminar.

COURSE GRAADING
The course is graded Credit/No Credit (Cr/NC) based on your participation, which is evaluated by:

1) The degree of your involvement as gauged by the quality of your answers to the seminar critique form (sample attached to this syllabus). This is a developmental activity: graduate students are expected to provide more sophisticated answers than undergrads; those that have been in the MORE Programs a while are expected to write better answers than newer student participants.

2) Attendance. To participate, you must be present. Please schedule your other commitments, including conducting research so that it does not conflict with your participation in the seminar course. Attendance is measured only by your turning in a completed critique form. Missing more than one seminar unexcused will result in a NC grade. There are, of course, several situations that are reasonable for missing a seminar, such as medical emergencies, and travel to professional meetings. If you plan to be absent and seek to be excused, please contact your coordinator (listed below) before the seminar. Only these individuals are authorized to excuse an absence. Please do not make your request to the MORE Programs Office Staff.

MARC U*STAR Scholars        Prof. Vicki- Kubo-Anderson (vkuboan@calstatela.edu; 343-2324) and Dr Linda Tunstad (ltunsta@calstatela.edu; 323-2307)
Junior/Senior MBRS RISE Scholars Dr. Krishna Foster (kfoster@calstatela.edu; 343-2326)
Freshman/Soph MBRS RISE Scholars Prof. Vicki- Kubo-Anderson (vkuboan@calstatela.edu; 343-2324)
MBRS RISE MS-to-PhD Scholars Dr. Jamil Momand (jmomand@calstatela.edu; 343-2144)
NIH Bridges to the PhD Scholars Dr. Robert Vellanoweth (vllnwth@calstatela.edu; 343-2148)
NSF LSAMP Bridge to the Doctorate Dr. Margaret Jefferson (mjeffer@calstatela.edu; 343-2059)
Other Students                Dr. Carlos Gutierrez (egutier@calstatela.edu; 343-2356)

3) Interaction with the speaker: asking questions at the seminar; going to lunch; meeting after the seminar.

OTHER SEMINAR SERIES
We encourage you to attend the seminar series of your major Cal State LA department:

Chemistry & Biochemistry        http://www.calstatela.edu/dept/chem/seminar.htm
Biological Sciences             http://www.calstatela.edu/academic/biol/bio510.htm

In addition, major research institutions in Southern California offer seminars in a broad range of biomedical and behavioral disciplines as well as other disciplines. If you are aware of other seminar series that should be listed, please inform your coordinator and provide the URL.

UCLA

Biological Chemistry            http://www.biolchem.ucla.edu/Symposia/symposia.htm
Biomathematics/Computational Biology http://www.biomath.medsch.ucla.edu/seminars/
Biostatistics                   http://www.ph.ucla.edu/biostat/course/seminars/seminars.htm#current
Bioinformatics                  http://www.bioinformatics.ucla.edu/seminars/seminars.htm
Chemistry & Biochemistry        http://www.chem.ucla.edu/dir/twic.html
Human Genetics                 http://www.genetics.ucla.edu/home/guest.htm
Microbiology Immunology, and Molecular genetics http://www.mimg.ucla.edu/events.html
Molecular Biology               http://www.mbi.ucla.edu/Events/nextweek.php
U of Southern California
Chemistry http://chem.usc.edu/dept/events.html
Neuroscience Graduate Program http://www.usc.edu/dept/nbio/ngp/courses/seminars.shtml
Biology http://biosci.usc.edu/seminars/

UC Irvine
Chemistry http://www.chem.uci.edu/seminars/
School of Biological Sciences http://www.bio.uci.edu/events/
Ecology and Evolutionary Biology http://ecoevo.bio.uci.edu/seminar%20Winter%202003.htm
Molecular Biology and Biochemistry http://www.uci.edu/events/mbb.cfm
Cognitive Sciences http://www.cogsci.uci.edu/colloquia/
Psychology and Social Behavior http://psb.soceco.uci.edu/pages/tags/events

UC San Diego
Chemistry and Biochemistry http://www-chem.ucsd.edu/Seminars/
Biological Sciences http://www.biology.ucsd.edu/events/A.html
Psychology http://psy.ucsd.edu/pages/events/index.html

Caltech
Caltech lists all of its seminars on its Calendar at http://today.caltech.edu/calendar/

UC Riverside
Chemistry http://www.chem.ucr.edu/seminars/seminars.html
Psychology http://www.events.ucr.edu/cgi-bin/display.cgi?key=thismonth&unit=49

UC Santa Barbara
Biomolecular Science and Engineering http://www.bmse.ucsb.edu/seminars/seminars.php
Molecular, Cellular and Developmental Biology http://www.lifesci.ucsb.edu/mcdb/events/events.html
Chemistry and Biochemistry http://www.chem.ucsb.edu/department/calendar.php
Bioengineering http://www.chem.ucsb.edu/~7Ebioengr/page3.htm