**CHEM 4820**

**Biomedical Science Research Seminars & Presentations**

**Spring Semester 2018**  
**Call Number: 34876**

**Fridays 2:00 – 3:00 (2-3:40) PM in Biological Sciences 144**  
**California State University, Los Angeles**

**Course Instructors**

- Dr. Carlos G. Gutierrez  
  Annenberg SCB 221C  
  (cgutier@calstatela.edu; 343-2356)
- Prof. Vicki Kubo-Anderson  
  Annenberg SCB 221E  
  (vkuboan@calstatela.edu; 343-2324)
- Dr. Margaret Jefferson  
  Annenberg SCB 323B  
  (mjeffer@calstatela.edu; 343-2059)
- Dr. Krishna Foster  
  Annenberg SCB 222E  
  (kfoster@calstatela.edu; 343-2309)
- Dr. Linda M. Tunstad  
  Annenberg SCB 222  
  (ltunsta@calstatela.edu; 343-2307)
- Dr. Jamil Momand  
  La Kretz Hall 270  
  (jmomand@calstatela.edu; 343-2361)
- Dr. Robert Vellanoweth  
  La Kretz Hall 272  
  (vllnwth@calstatela.edu; 343-2148)
- Dr. Katrina Yamazaki  
  La Kretz Hall 312  
  (kyamaza@calstatela.edu; 343-2086)

**Course Goals**

The goal of this course is to develop listening and critical skills for students to become active participants in dialogues with seminar presenters. Research seminars are an important medium for communication of new scientific results, frequently before they have been published. The intent here is that the student 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 students’ scientific perspectives. These seminars cover the work of academic and industrial biomedical, behavioral, and mathematical scientists. There are also opportunities for students to develop their own communication skills through presentation in poster sessions and oral talks. The course requires your active participation.

**Spring Semester Seminars**

The seminar series schedule is listed at [http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm](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. Plan to come to each seminar prepared to participate. Please check this website throughout the semester. It will be updated as missing information (such as seminar abstracts, titles) is received.

**Fri, Jan 26**  
**Poster Session I: Summer 2017 Off-Campus Research**  
La Kretz Hall Lobby

- Exequiel Punzalan, Marco Lopez, Joshua Lugo, Jonathan Aldana, Edward Ramirez, Benjamin Nittayo, Frank Gutierrez, Chris Castillo, Jаниelle Cuala, Neil Poole, Tiffany Ibarra, Donna Loza

**Fri, Feb 2**  
**Development of a Small Molecule SERCA-2b Inhibitor For Triple Negative Breast Cancer (TNBC)**  
Professor Stan Gee Louie, Director of Clinical Experimental Therapeutics Program, Clinical Pharmacy, School of Pharmacy, USC

**Thurs, Feb 8**  
**Lloyd Ferguson Research Seminar**  
3PM in BS334  
**Tuning the Immune Response**
Dr. Avery August Professor and Chair, Department of Microbiology & Immunology, Center Institute of Host-Microbe Interactions & Disease, Cornell University College of Veterinary Medicine (former Cal State LA RIMI Scholar)

Fri, Feb 9  
Lloyd Ferguson Lecture and Luncheon  
12PM GE Ballroom  
Every day I’m hustlin’: the making of a scientific career  
Dr. Avery August, Department Chair, Microbiology & Immunology, Center Institute of Host-Microbe Interactions & Disease, Cornell University College of Veterinary Medicine

Fri, Feb 16  
Development of Model Systems to Study the Pathogenesis of Zika Virus-Mediated Eye Disease  
Dr. Laura Martinez, (former RISE MS-to-PhD Scholar) Postdoctoral Fellow Department of Molecular and Medical Pharmacology, UCLA

Fri, Feb 23  
Neural basis of reward learning and choice: Basic mechanisms and pathology in addictions  
Dr. Alicia Izquierdo (former Cal State LA faculty member), Dept. of Psychology, UCLA

Fri, Mar 2  
26th Annual Student Symposium on Research, Scholarship, and Creative Activities  
Oral Presentations 9A-12PM – Student Union, Posters 11AM-1PM - GE Ballroom, and Reception 3:30PM – 5:30PM – GE Ballroom

Fri, Mar 9  
Poster Session II - La Kretz Hall Lobby

Fri, Mar 16  
Graduating Student Seminars I

Fri, Mar 23  
Applying to PhD Programs ... And How Are You Going To Pay For All This?  
Dr. Carlos Gutiérrez, Prof. of Chemistry, and Director, MORE Programs, Cal State LA

Fri, Apr 6  
Innate Immunity in the Small Intestine: Tales from the Crypts  
Dr. Charles Bevins, Department of Medical Microbiology and Immunology, UC Davis

Fri, Apr 13  
Poster Session III - La Kretz Hall Lobby

Fri, Apr 20  
Graduating Student Seminars II

Thurs, Apr 26  
Anthony Andreoli – Geraldine Woods Research Seminar  
3:00 PM  
Dr. Paul Barber, Department of Ecology and Evolutionary Biology, UCLA

Fri, Apr 27  
Anthony Andreoli – Geraldine Woods Lecture and Luncheon  
12:00 PM  
GE Ballroom  
Dr. Paul Barber, Department of Ecology and Evolutionary Biology, UCLA

Fri, May 4  
Graduating Student Seminars III

Fri, May 11  
Dipole Modulation of Charge Transfer in Anthranilamides  
Eli Espinoza (former RISE MS-to-PhD Scholar)  
Department of Chemistry/Material Science Program, UC Riverside
ADMINISTRATIVE NOTES

These seminars are opportunities for you to interact with a broad range of academic and industrial biomedical scientists and their work. Some speakers also serve as graduate school recruiters, and can provide an initial contact between you and prospective graduate programs. The University provides some funds for students to join seminar speakers for lunch or dinner. Please contact Lisa Bautista, MORE Programs Grant Project Administration Coordinator (lbautis3@calstatela.edu; 343-2395) a week in advance if you are interested in taking advantage of this opportunity to further interact with a particular speaker.

Every seminar is critiqued as a developmental activity. You will receive a form to critique each session’s 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 2 PM. Please be there on time, particularly as a courtesy to the speaker.

CELL PHONES, LAPTOPS, iPADS

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 you must take the call, discreetly exit the lecture hall, and return after the call. Plan on giving your full attention to the speakers and their work. Keep your laptops and tablets turned off.

YOUR ROLE AS ACTIVE PARTICIPANT

Your role in the Biomedical Sciences Seminar Series is not as part of a passive audience but rather as an active participant. Indeed, in its best result, the seminar is a dialog between the presenter and you as participant. You are expected to be actively involved extracting information from the seminar and contributing to the dialog. Look at seminars as occasions to explore interesting topics in a more active and satisfying way than either reading or listening to lectures. Research on learning suggests 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.** Background information on the seminar - an abstract provided by the seminar speaker, and bibliographic references to pertinent publications - is available to you in advance by clicking on the seminar title on the MORE Programs Biomedical Sciences Seminar web page (http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm). If you have no background at the time you come to the seminar, you will be unprepared 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 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. There is a hierarchy of questioning (low= 1; high= 5):

1. questions dealing with simple facts and classification
2. questions about simple fact relationships
3. questions about more complex (such as necessary/sufficient) relationships
4. questions about causal relationships or hypotheses, questions about experimental outcomes, questions about controls, questions about relationships between variables, questions about experimental trouble shooting
5. questions formulated with well-defined variables; questions that offer a solution or prediction (that have an embedded hypothesis).

e) **Present a Poster.** Two poster sessions are scheduled for the spring semester. Half of MORE and LSAMP-BD participants will present at the first; the other half in the second Poster Session. This is detailed later in this syllabus.

f) **Present a Seminar.** If you are a graduating senior or second year MS student, plan on presenting your work in the Spring semester. Students that did off-campus research present early in the spring semester.

g) **Suggest.** We welcome suggestions for speakers or topics for future seminars. Please send these to Dr. Carlos Gutiérrez at cegutier@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](http://www.calstatela.edu/centers/moreprograms/biomed_sem.htm).

**OFF-CAMPUS SEMINAR OPPORTUNITY**

An innovation suggested by the Student Advisory Committee allows you to participate in a different seminar in your discipline. You may substitute any ONE seminar in the schedule for a seminar 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 and plan to attend. Note that on-campus seminars are not counted for this: you are already expected to attend the regular seminars offered by your major department as part of your ongoing development as a scientist.

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

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

**LUNCH OR DINNER WITH THE SEMINAR SPEAKERS**

The University provides a small fund for interested students to accompany seminar speakers to lunch or dinner. The intent here is to give students who are particularly interested in the seminar speaker’s research topic, or the speaker’s institution for PhD study, the opportunity to meet and interact with the speaker in an informal setting. If you are interested in going to lunch with a particular speaker, please let Lisa Bautista know (lbautis3@calstatela.edu) not later than one week prior to the seminar.

**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). 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.


**SPRING 2018 POSTER PRESENTATIONS**

**SESSION I - FRIDAY, JANUARY 26; SESSION II - FRIDAY, MARCH 9; SESSION III, - FRIDAY, APRIL 13**

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, two seminar periods in the Spring Semester are devoted to poster sessions. All MORE Students that participated in off-campus research present their research results in Poster Session I. All MORE students, except graduating students that make oral presentations, participate in Poster Sessions II or III each of the Spring. All students participate in poster sessions either as a poster presenter, or as a reviewer of the presentations.

**Presenters:** 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 on March 3 email your file ready for printing to Lisa Bautista lbautis3@calstatela.edu. Contact Lisa as soon as possible to arrange for printing, since she also has other responsibilities and is not always available. **Expect the occurrence of glitches, and build into the process sufficient time to resolve them.**

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

**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 prepare and 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 the sense of your work to an 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 to attend conferences, graduate school interviews, or just conversations about your work with peers and faculty members.

You may want to visit the following URLs that offer tips on preparing effective research posters.

**Advise for Constructing Scientific Posters** Dr. Colin Purrington, Swarthmore University.
http://www.swarthmore.edu/NatSci/cpurrin1/posteradvice.htm

**Creating a Poster Using MS PowerPoint** University of Washington School of Public Health and Community Medicine
http://depts.washington.edu/mphpact/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.lcscl.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

**Poster Critique Requirements**, for the poster session you are not presenting, 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 on Mar 3 for Poster Session I; and on Apr 28 for Poster Session III. The Analysis is due a week later after the seminar: March 7 for Poster Session II; May 5 for Poster Session III.

Please email your poster title and an abstract by February 13 for Poster Session I; and by April 3 for Poster Session II to Lisa Bautista at lbautis3@calstatela.edu so these are available on the website in advance of the poster session.

COURSE GRADING
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.

   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; they are not authorized to entertain this.

   MARC U*STAR Scholars
   Dr. Linda Tunstad (ltunsta@calstatela.edu; 434-2307)
   Junior/Senior RISE Scholars
   Dr. Krishna Foster (kfoster@calstatela.edu; 343-2326)
   Frosh/Soph RISE Scholars
   Dr. Edith Porter (eporter@calstatela.edu; 343-6353)
   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 G. Gutierrez (cgutier@calstatela.edu; 343-2395)

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

OTHER SEMINAR SERIES
We encourage you to attend the weekly departmental seminar series of your major department at Cal State LA. Websites for these series follow:

Chemistry & Biochemistry
http://www.calstatela.edu/dept/chem/seminar.htm

Biological Sciences
http://www.calstatela.edu/academic/biol/seminars.php

In addition, major research institutions in Southern California offer outstanding seminars in a broad range of biomedical and behavioral disciplines. Below are webpages to many of these. 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.bio.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

**City of Hope**
https://www.cityofhope.org/research/medical-and-research-events-calendar