Cellular Mechanisms and Integrated Systems II (IBGS522)
To be taught in conjunction with IBGS 512
Winter Quarter, 2013

Friday Paper Discussion
Meeting Time: 12:00-2:00 PM
Place: Mortensen Hall Amphitheater

Coordinator: Dr. Nathan Wall

Date	Literature Topic	Referee	Student/Teams
1/11/13	Calcium Signaling	Buchholz	A/B
1/18/13	Signaling	Hessinger	C/D
1/25/13	Cell Cycle	Soto	E/F
2/1/13	Cell Death	Casiano	G/A
2/8/13	Cell Death/drug development	Brantley	B/C
2/15/13	Immunology (Family Day: 9-11am)	Hughes	D/E
2/22/13	Hematopoietic	Payne	F/G
3/1/13	Endocrine Tumors	Wall	A/B
3/8/13	Growth Hormones & Thyroid	Tang	C/D
3/15/13	Gametogenesis and Fertilization	Oberg	E/F
3/22/13	Organogenesis	Oberg	G/Party

Students:	Team
	A
	B
	C
	D
	E
	F
	G

I. General

This component of IBGS 522 will be taught in a journal club format. Students will be individually responsible for each week's papers. Each week, student teams will present an oral critique of a recent paper relevant to the basic sciences covered by lectures in IBGS 512 of that week. The papers presented will be recommended and mediated by IBGS 512 faculty. Students are required to take part in the oral critique during class. The student(s) presenting will each submit a proposal for the next experiments that would follow those of the paper presented, due the following class period. Rational design is expected. Papers should follow the following approach: an introduction to the literature/subject followed by the hypothesis and question to be investigated followed by the experimental design and ending with alternative approaches should those designed fail and the anticipated pitfalls. Students will pick one other of the 20 papers being presented this quarter and write a 3 page mini-grant proposal as was described above. Participation is required from all students in every journal club and grades will reflect highly your involvement.

All IBGS 512 faculty, post-doctoral fellows and graduate students from the basic sciences are encouraged to attend; this literature discussion is open to all interested students and researchers at Loma Linda University.

II. Course Objective

The educational objectives of this portion of IBGS 522 are:

A. to learn to critically evaluate the scientific literature;
B. to develop both oral and written communication skills;
C. to develop the habit of asking questions during oral presentations and participating in scientific discussion;
D. to broaden the student's knowledge of current research
E. to gain insight into the approach different researchers take toward scientific problems by promoting scientific interaction in an informal atmosphere.
F. to better understand how basic science research contributes to the medical sciences.

III. Guidelines for Student Participation

A. General

IBGS 522 students are required to participate in this portion of IBGS 522. Papers being critiqued are selected by IBGS 512 faculty and given to the students at the end of class on the previous Friday, giving students one week to prepare their oral critiques for the following Friday. Students will then be given one additional week to complete the written proposal that will be due the following class period. All students should be prepared to discuss all aspects of the papers during the oral presentation. In addition students will be asked to evaluate the oral presentation and offer constructive criticism on a standardized form (see attached form).

B. Guidelines for oral critiques

Students should take advantage of the tools available to them which include but are not limited to: Pub Med, Del Webb library, and contact with the faculty member who recommended the paper or faculty presenting in the lectures during the week of the literature presentation. Faculty members can provide insight, which may help students more fully understand the broader significance of the paper.

Oral presentations should consist of the following:

I. **Introduction:** Introduce the study including the paper title, the authors, their affiliations, and a brief statement of the hypothesis(es) and/or overall objective(s) (i.e., what is(are*) the questions(s)* being addressed?).
II. **Background:** Briefly summarize what is known and identify what specific gaps in current knowledge this study proposes to fill (i.e., why is it important to know *the answer(s)* to *the question(s)*?). Provide enough background material to familiarize everyone with the previous work that impacts upon the study you are presenting (it's safest to assume that the audience knows little or nothing about the particular research field). Refer to the references cited in the paper's Introduction as a guideline for preparing this portion of the presentation (this will likely require a considerable amount of time in the library/literature!). If previous results have a significant impact on the paper being critiqued, review some experimental data from the background papers in the presentation.
III. **Experimental Design and Methods:** Briefly overview the methods (i.e., what information do they provide?) and experimental design (i.e., how are the methods used to test the hypothesis(es)?). Is the experiment necessary to support the conclusion or answer the question? Assess their appropriateness to answer *the question(s).* If any of the methods are uncommon or difficult to understand, provide a brief description of how they work.
IV. **Results:** Present the results. For each experiment, give the author's conclusions and how the results lead to the subsequent experiment. Indicate which methods were used to generate the data and how the figure/table presents the information. This is a good place to criticize how the data are presented, the author's conclusion from a particular experiment, or the experimental design (would another approach give a clearer interpretation?).

V. **Summary:** Summarize the key results and how they provide the answer(s) to the question(s). Do you agree with the author's overall interpretation? If not, why not and how would you interpret their data?

VI. **Discussion:** Discuss how this study impacts on work from other laboratories in the field (i.e., how do the result fit the "big picture"?). Discuss the future direction of these studies (i.e., what are the implications of this work?).

IV. Grading Policy

A. Classroom attendance policy

Do to the participatory nature of this class, all students are expected to attend and take part in all Friday literature discussions. If you will need to be absent for any reason, you must receive prior permission from Dr. Wall. If you are absent from class without permission your grade will be lowered one letter grade from what it would have otherwise been (Not A to A minus, but A minus to B minus).

Sometimes problems arise in a course due to a variety of reasons – conflicts between work/school and personal agenda, poor communication, etc. If the student is having a problem with an assignment, the course in general, s/he should contact the instructor. The instructor is flexible in making adjustments, so long as academic quality is not compromised.

B. Factors Affecting Grade

Your letter grade will be based on: the oral critiques; the written proposals; participation in discussion; and attendance.

1. The score for the oral critique will be based on both the audience and course director's and referee evaluation of the presentation in terms of the content of the presentation and the style of the presentation. The evaluation of the content of the presentation will weigh most heavily in determining the score. The student will receive their score, audience evaluations, and a summary highlighting the strengths and weaknesses of the presentation within two weeks after the presentation.
2. The score for the written proposals will be based on evidence for understanding the subject and insight into the topic as related to the above guidelines. Proposals will be evaluated by the course director. Students will receive their score and written comments pertaining to the critique within two weeks.

C. Grading Criteria:

The criteria used to evaluate the quality of written and oral assignments in this course correspond to the following:

Evidence of learning
Depth of critical analysis
Reference to relevant issues and materials in the literature
Organization and thoroughness
Effectiveness of argumentation
Delivery effectiveness
Spelling and use of language

Assignments should demonstrate that students have analyzed the key issues in the course and are thinking critically about them. Assignments should be logically presented, adequately supported, and carefully reasoned. Evidence of individual contribution to group projects will be gauged through the student's effectiveness and participation in class discussion of the project. The general evaluation criteria are more fully stated as follows:

What	Mode	Points (total of 1000)
Participation	In class	50 x 10 = 500
Timeliness	In class	Expected
Oral presentations/critique	In class (X1)	50 X 4 = 200, 50 X 4 = 200
Written Proposals	Fridays at 12 PM (start of class)	100 X 1 = 100
TOTAL		**1000**

4.0	**A**	**1000-960**	**2.0**	**C**	**769-740**
3.7	**A-**	**959-900**	**1.7**	**C-**	**739-700**
3.3	**B+**	**899-870**	**1.3**	**D+**	**699-670**
3.0	**B**	**869-840**	**1.0**	**D**	**669-640**
2.7	**B-**	**839-800**	**0.7**	**D-**	**639-600**
2.3	**C+**	**799-770**	**0.0**	**F**	**599 and below**

V. Academic Honesty:

The Loma Linda University policy on academic honesty will be strictly adhered to and applied. The procedures for addressing academic honesty are set forth in the Loma Linda University handbook. It is expected that all students read and understand the policy and the provisions outlined in the handbook.

The highest standards of academic conduct are required. This is particularly true for the proper citation of course and research material in all written assignments. If you did not actually collect the data or independently arrive at the idea presented, then a proper citation must be used. Citations (in the form of parenthetical notes, endnotes or footnotes) must be used for quoted or paraphrased text and ant time you borrow an idea from an author, the instructor, or your peers. Using someone else's sentence or organizational structure, pattern of argument and work choice, even if not exactly similar in every respect, warrants citation. It is students' responsibility to make sure that their citations and quotation marks unambiguously highlight the ideas, words, sentences, and arguments that they borrow from other sources. Paraphrasing is not simply changing one or two words in a sentence; it completely reconstructs someone else's idea in your own words.

For guidelines on appropriate citation quotation, paraphrasing, and plagiarism, see Diana Hacker's Writer's Reference http://www.dianahacker.com/writersref/, materials provided by the Indiana University's Writing Tutorial Center at http://www.indiana.edu/~wts/pamphlets.shtml, and Harvard University's Expository Writing Program at http://www.fas.harvard.edu/~expos/index.cgi?section=resources.

Discussion with the instructor and your peers is encouraged, however, all written work, unless specified by the instructor, is to reflect independent composition and revision. Students working on group or collaborative assignments are expected to contribute equally to all tasks necessary for completion of the assignment.

Time constraints, the demands of work and family, failing to read the University's policy on academic honesty, unintentional misuse of sources, or a lack of preparation do not excuse academic dishonesty or otherwise mitigate the appropriate penalty. Penalty for a first offense is at the discretion of the instructor.

VI. Flexibility:

This course syllabus provides a general plan for the course. However, deviations may be necessary. If it becomes necessary to alter times, dates, referees, or any other parameter important to the class, students will be notified by email/blackboard as early as possible.

IBGS 522 – CELLULAR MECHANISMS AND INTEGRATED SYSTEMS II

Student Group Presenting: G
Recommending Faculty: Dr. Nathan Wall
Date: March 18, 2011

Please rate the presentation in each category. Please circle the appropriate score and use the entire range of the scale, if appropriate.

STUDENT PRESENTATION

Contents	**Poor**					**Good**				**Excellent**
Introduction/Background	1	2	3	4	5	6	7	8	9	10
Experimental Design/Methods	1	2	3	4	5	6	7	8	9	10
Results	1	2	3	4	5	6	7	8	9	10
Discussion/Summary	1	2	3	4	5	6	7	8	9	10
Presenter's knowledge of the material	1	2	3	4	5	6	7	8	9	10
Presenter's ability to answer questions	1	2	3	4	5	6	7	8	9	10
Presenter's ability to lead discussion	1	2	3	4	5	6	7	8	9	10
Style										
Ability to hear speaker	1	2	3	4	5	6	7	8	9	10
Organization	1	2	3	4	5	6	7	8	9	10
Quality/quantity of overheads	1	2	3	4	5	6	7	8	9	10
Overall audience contact	1	2	3	4	5	6	7	8	9	10
Overall	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

COMMENTS/SUGGESTIONS FOR STUDENT (Constructive comments/suggestions are especially encouraged)

FACULTY CONTRIBUTION	**Too much**					**Good**				**Too little**
Level of participation	1	2	3	4	5	6	7	8	9	10
Amount of information added	1	2	3	4	5	6	7	8	9	10
Value of information added	1	2	3	4	5	6	7	8	9	10

(Faculty name) Wall

Student Evaluating:_____

V. Faculty Guidelines

1. Paper selection

Recent paper

Experimental in nature (NO REVIEW PAPERS)

Fits with the lecture material being given during the week M-Th prior to this Friday literature discussion.

2. In Class Function

Provide relevant background info as appropriate

Ask insightful questions

Answer questions after students have attempted if needed to clarify or expand or correct.

3. Grading

Comments will be required on the written critiques handed in by student groups