LIFS 6170: SPECIAL TOPICS IN MOLECULAR, CELL AND DEVELOPMENTAL BIOLOGY (Fall 2016)

Course Instructors:

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Room: Rm2503

Tuesday and Thursday from 9:00 – 10:50

Week	Date	Instructor	Topic
1 2	Sept. 6, 8 Sept. 13,15	WEN	Lymphocyte development and cytokine signaling
3 4	Sept.20, 22 Sept.27, 29	YAN	Mechanical forces in cell and developmental biology
5 6	Oct. 4, 6 Oct. 11, 13	ISHIBASHI	Mechanism of transcription regulation
7 8	Oct. 18, 20 Oct. 25, 27	WU	Next generation sequencing technologies and their clinical applications
9 10	Oct. 25, 27 Nov. 8, 10	LIU	Axon guidance and regeneration
11 12	Nov.15, 17 Nov.22, 24	TSIM	Chinese medicine in age-related degenerative diseases

Course Description:

Molecular, cell and developmental biology is a diverse area of life science. Students will be introduced to one or more current topics of active research in each of the six topic areas.

Learning Outcomes:

1. Students will become acquainted with historical and current research in each of the topic areas
2. Students will develop the ability to assess scientific literature by writing
3. Students will develop the ability to review and present scientific literature through oral presentations

Assessment Scheme:

Each student will give one 30 minute oral presentation (30%) on an assigned paper during the course and six 1-2 page written reviews on assigned papers, one per topic (70%).

Student Learning Resourses:

Course material (to be provided by each lecturer) will be based on historical and recent scientific literature in each of the topic areas.

Assessment rubic for written reviews:

	Needs improvement	Good	Excellent
Summarizes background information of the paper	Does not consult the primary literature cited in the introduction section of the paper.	Reviews the primary literature cited in the introduction section of the paper.	Reviews the cited primary literature and assesses whether the hypotheses of the paper are justified.
Describes and evaluates the methods used in the paper	Lack of understanding of the methods and their potential shortcomings.	Understands the methods and their potential shortcomings.	Understands the methods and identifies alternative approaches that can complement or improve the paper.
Assesses the validity of the results	Incorrect interpretation of data.	Correct interpretation of data.	Correct interpretation of data. Identifies pitfalls and limitations of data.