

Advanced Gene Regulation

BCH 7410: Fall 2017

Tuesdays and Thursdays from 9:35am to 11:30am in Room CGRC 133

September 26	Basal Transcription Complex	Bungert
September 28	Gene Regulation, Role of Mediator and other Co-regulators	Huang
	Discussion: Krebs et al., Mol Cell 2017. 67:1-12.	
	<u>Discussion Leader:</u>	
October 03	Chromatin Structure	Huang
	Discussion: Gilan et al., NSMB 2016. 23; 673-681.	
	<u>Discussion Leader:</u>	
October 05	Gene Regulation from a Distance	Bungert
	Discussion: Spencer et al., Cell, 2017. 168: 1-16.	
	<u>Discussion Leader:</u>	
October 10	Insulators and Matrix Attachment	Huang
	Discussion: Beagrie et al., Nature 2017. 543; 519-524.	
	<u>Discussion Leader:</u>	
October 12	Noncoding RNA	Huang
	Discussion: Narendra et al., Genes & Dev. 2016. 30: 2657-2662.	
	<u>Discussion Leader:</u>	
October 17	RNA Export	Aris
	Discussion: Liu et al., Science, 2017. 355, 39.	
	<u>Discussion Leader:</u>	
October 19	Splicing	Berglund

Discussion: Caporilli et al., PLoS Genetics 2013. 9(6): e1003526.

Discussion Leader:

October 24

Nuclear transcription domains

Bungert

Discussion: Preubner et al., Mol. Cell, 2017. 67: 1-14.

Discussion Leader:

October 26

Gene Regulation During Differentiation

Bungert

and Development

Discussion: Nozaki et al., Mol. Cell, 2017. 67, 282-293

Discussion Leader:

Format: This class consists of a series of lectures by experts in the field followed by student led discussions of current literature. The emphasis is on the discussion of the articles; every student is expected to read the articles and be prepared to present parts of the articles. Towards the end of the course the students will prepare and submit a critique of one of the papers discussed in class. The critique should be one to two pages long and should provide a summary of the major findings and a discussion of the strengths and weaknesses of the article. The final grade will be based on the performance in class and the quality of the written critique.