## PATH822 Experimental Cancer Therapeutics COURSE OUTLINE 2019

**CO-ORDINATOR:** Dr. Lois Mulligan (Email: mulligal@queensu.ca)

TA: TBA (Email: )

DATE AND TIME: FRIDAYS, 9:30 AM - 12:30 PM

LOCATION: Cancer Research Institute (CRI) Room 100

#### **GENERAL COURSE FORMAT:**

The course will introduce and explore essential questions in basic science and translational approaches to experimental cancer therapeutics. Each class begins with a presentation or group learning activity led by the topic Session Leader (max time 1.5 hrs). Students will be preassigned reading material for each class to introduce the discussion topic and provide background for the Session Leader's presentation. After a short break (~15 min), individual student presentations (~20 min) of assigned papers will be followed by a question period ( $\sim$ 10 min), where the presenting student poses two questions to the class. The class responds and discussion goes on from there. The student presenters are expected to lead the class discussion. Session leaders add value, corrections, etc. as appropriate. At the end, the session leader and co-ordinator may provide some additional comments or overall appraisal. In addition to the oral presentation, presenting students will submit a brief written nontechnical overview of the presentation topic area and summary of the assigned paper in the form of a 1 page (500 word) lay summary suitable for a Blog Post that should be accessible to a general audience. Students will also be evaluated on ability to read and critique current literature through peer review and "mini-editorial board" team-learning activities that will be incorporated into some classes. The course aims are to: 1) provide information on fundamental as well as state of the art concepts being applied to overcome challenges in the field of cancer therapeutics; and 2) enhance the student's skills to recognize fruitful areas of research, apply learned concepts, and clearly and concisely articulate their ideas to expert and non-expert audiences.

#### **EVALUATION**

Presentation	30%
Blog Post	10%
Mini-Editorial Board	3x 10%
Class Participation	10%
Final Evaluation	20%

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### COURSE SCHEDULE

WK	DATE	TOPIC	SESSION LEADER
1	13 Sept	Overview and Introduction to Drug Development	Mulligan
2	20 Sept	Molecular basis of Oncogenic Transformation and Signaling	Mulligan
3	27 Sept	Tumour variability & molecular evolution: impacts on treatment strategies	Rauh
4	4 Oct	Emerging approaches for Immuno-oncology	Craig
5	11 Oct	Drug Discovery Small Molecules	Visiting speaker Dr. Rima Al-awar (OICR)
6	18 Oct	Drug Discovery II (nonsmall molecules, ie RNAi, DNA vaccines, viruses etc)	Renwick
7	25 Oct	Experimental Drug Delivery	Nicol
8	1 Nov	Preclinical Models for Validating Experimental Targets	Greer
9	8 Nov	Challenges of Current Cancer Therapies	Cole
10	15 Nov	Cancer Drug Development: From Regulatory Approval To Improving Patient Outcomes	Gyawali
11	22 Nov	Advances in Prostate Cancer Therapy	Visiting speaker Dr. Amira Zoubeidi (UBC)
12	29 Nov	Clinical Results of Immunotargeted Therapy/ IIRC	Dancey