

Syllabus: Radiobiology for Residents 2014-2015
Thursdays, 1:00 – 2:00 pm
 Conference Room LL412 (Vault E), Smilow Lower Level

<u>Date</u>	<u>Topic</u>	<u>Instructor</u>	<u>Room</u>
September 11, 2014	No Class		
September 18, 2014	ASTRO		
September 25, 2014	Basic Molecular Biology	Ryan Jensen	LL412
October 2, 2014	Molecular Biology Techniques	Ryan Jensen	LL412
October 9, 2014	Cancer	Ranjit Bindra	LL412
October 16, 2014	DNA Strand Breaks & Chromosomal Aberrations	Faye Rogers	LL412
October 23, 2014	Radiation Carcinogenesis	James Hansen	LL412
October 30, 2014	Heritable Effects of Radiation	Faye Rogers	LL412
November 06, 2014	Molecular Mechanisms of Radiation Damage	Dean Rupp	LL412
November 13, 2014	Molecular Mechanisms of DNA Repair	Dean Rupp	LL412
November 20, 2014	Repair at the Cellular Level	Dean Rupp	LL412
November 27, 2014	HOLIDAY		
December 4, 2014	RESIDENT INTERVIEWS		
December 11, 2014	RESIDENT INTERVIEWS		
December 18, 2014	Mechanisms of Cell Death	Doug Brash	LL412
December 25, 2014	HOLIDAY		
January 1, 2015	HOLIDAY		
January 8, 2015	Molecular Signaling –Cytoplasmic	Doug Brash	LL412
January 15, 2015	Molecular Signaling – Nuclear	Doug Brash	LL412
January 22, 2015	Solid Tumor Systems	Joseph Contessa	LL412
January 29, 2015	Cell & Tissue Survival Assays	Ranjit Bindra	LL412
February 5, 2015	Cell and Tissue Kinetics-#1	Joann Sweasy	LL412
February 12, 2015	Cell and Tissue Kinetics-#2	Joann Sweasy	LL412
February 19, 2015	Models of Cell Survival-#1	David Carlson	LL412
February 26, 2015	Models of Cell Survival#2	David Carlson	LL412
March 5, 2015	IN-TRAINING EXAM		
March 12, 2015	Tumor Microenvironment	Zhong Yun	LL412
March 19, 2015	Oxygen Effect	Zhong Yun	LL412
March 26, 2015	Radiosensitizers, Bioreductive Drugs, Radioprotectors	William Summers	LL412

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April 02, 2015	Therapeutic Ratio, Time–Dose, Fractionation	Joseph Contessa	LL412
April 09, 2015	Low Dose Hypersensitivity, Bystander Effects, Genomic Instability	Joseph Contessa	LL412
April 16, 2015	Total Body Irradiation – Therapeutic & Accidental	Abhi Patel	LL412
April 23, 2015	Biological Aspects of Alternative Dose Delivery Systems	Abhi Patel	LL412
April 30, 2015	Biology of Brachytherapy	Suzanne Evans	LL412
May 07, 2015	Interaction of RT with Chemotherapeutic Agents, PDT; MDR, Gene Therapy	Bruce McGibbon	LL412
May 14, 2015	Clinically Relevant Normal Tissue Responses & Mechanisms	Shari Damast	LL412
May 21, 2015	Cataracts; Radiation Effects in the Developing Embryo	Kimberly Johung	LL412
May 28, 2015	Hyperthermia	Meena Moran	LL412
June 04, 2015	Radiation Protection	Nick Dainiak (Tentative)	LL412
June 11, 2015	Q&A	Zhong Yun et al.	LL412

Lectures last one hour.

- 1. Handouts are to be given for each lecture. Handouts can be the slides. Please cite references in the handouts.**
- 2. Provide a PowerPoint file of your lecture to Amrit Dhawan for uploading onto the Department Server BEFORE your lecture.**
- 3. Please give practice questions for each lecture. Practice questions can be taken from the in-service exam and other exam books.**
- 4. To better prepare the residents for the Board Exam, it is recommended that you use the format found in the in-service exam and other relevant exam books. Alternatively, you may want to include questions from the in-service exam and previous Boards.**

Directions to Smilow Cancer Center and the Radiation Oncology Conference Room ("Room E") from the Hunter Building:

Go through the Atrium in the main hospital into the Smilow lobby; take an elevator to the lower level, LL.

Enter the Radiation Oncology patient reception area (sign). Take an immediate right, go through the wooden door, go past the receptionists' desk, and go through the wooden double doors. Turn right and go halfway down the long hallway to the overhead sign that says "E" (near ceiling on left). The conference room is in Room E.

To use a laptop with the projector, it looks like you unplug the existing Dell computer connection at the projector and plug in the connector from your laptop.