

Syllabus: Radiobiology for Residents 2016-2017

8:05 am – 8:55 am, Thursdays

Date	Topic	Instructor	Location
September 8, 2016	Cancer	Ranjit Bindra	Smilow LL-505
September 15, 2016	Radiation Carcinogenesis	James Hansen	Smilow LL-505
September 22, 2016	Heritable Effects of Radiation	Faye Rogers	Smilow LL-505
September 29, 2016	ASTRO		
October 06, 2016	Basic Molecular Biology	Ryan Jensen	Smilow LL-505
October 13, 2016	Molecular Biology Techniques	Ryan Jensen	Smilow LL-505
October 20, 2016	Molecular Mechanisms of Radiation Damage	Ryan Jensen	Smilow LL-505
October 27, 2016	DNA Strand Breaks & Chromosomal Aberrations	Faye Rogers	Smilow LL-505
November 03, 2016	Molecular Mechanisms of DNA Repair	Faye Rogers	Smilow LL-505
November 10, 2016	Repair at the Cellular Level	Ryan Jensen	Smilow LL-505
November 17, 2016	Mechanisms of Cell Death	Doug Brash	Smilow LL-505
November 24, 2016	THANKSGIVING HOLIDAY		
December 1, 2016	RESIDENT INTERVIEWS		
December 8, 2016	Molecular Signaling –Cytoplasmic	Doug Brash	Smilow LL-505
December 15, 2016	RESIDENT INTERVIEWS		
December 22, 2016	Molecular Signaling – Nuclear	Doug Brash	Smilow LL-505
December 29, 2016	CHRISTMAS HOLIDAY		
January 05, 2017	RESIDENT INTERVIEWS		
January 12, 2017	Cell & Tissue Survival Assays	Ranjit Bindra	Smilow LL-505
January 19, 2017	Cell and Tissue Kinetics-#1	James Hansen	Smilow LL-505
January 26, 2017	Cell and Tissue Kinetics-#2	James Hansen	Smilow LL-505
February 02, 2017	Models of Cell Survival-#1	David Carlson	Smilow LL-505
February 09, 2017	Models of Cell Survival#2	David Carlson	Smilow LL-505
February 16, 2017	Solid Tumor Systems	Joseph Contessa	Smilow LL-505
February 23, 2017	General Discussion Re In-Service Exam	Bindra, Johung, Young	Smilow LL-505
March 02, 2017	IN-TRAINING EXAM		
March 09, 2017	Tumor Microenvironment	Zhong Yun	Smilow LL-505
March 16, 2017	Oxygen Effect	Zhong Yun	Smilow LL-505
March 23, 2017	Radiosensitizers, Bioreductive Drugs, Radioprotectors	William Summers	Smilow LL-505

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March 30, 2017	Therapeutic Ratio, Time–Dose, Fractionation	Joseph Contessa	Smilow LL-505
April 06, 2017	Low Dose Hypersensitivity, Bystander Effects, Genomic Instability	Sameer Nath	Smilow LL-505
April 13, 2017	Total Body Irradiation – Therapeutic & Accidental	Abhi Patel	Smilow LL-505
April 20, 2017	Biological Aspects of Alternative Dose Delivery Systems	Abhi Patel	Smilow LL-505
April 27, 2017	Biology of Brachytherapy	Melissa Young	Smilow LL-505
May 04, 2017	Interaction of RT with Chemotherapeutic Agents, PDT; MDR, Gene Therapy	Sameer Nath	Smilow LL-505
May 11, 2017	Clinically Relevant Normal Tissue Responses & Mechanisms	Shari Damast	Smilow LL-505
May 18, 2017	Cataracts; Radiation Effects in the Developing Embryo	Kimberly Johung	Smilow LL-505
May 25, 2017	Hyperthermia	Meena Moran	Smilow LL-505
June 01, 2017	General Discussion	Zhong Yun	Smilow LL-505

Lecture Instructions:

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 (amrit.dhawan@yale.edu) for uploading onto the Department Server BEFORE your lecture.
3. Please incorporate and/or provide practice questions for each lecture. Practice questions can be taken from the in-service exams and other study guides, some of which can be downloaded from the [Department Website](#).