

**Syllabus: Radiobiology for Residents 2008-2009**  
**Time of Meeting: Thursdays, 1:00 – 2:00 pm**

<u>Date</u>	<u>Topic</u>	<u>Instructor</u>	<u>Room</u>
September 25, 2008	Introduction to course / Molecular-Techniques	Yilun Liu	WWW, Rm 201
October 2, 2008	Molecular – Techniques II	Yilun Liu	WWW, Rm 201
October 9, 2008	DNA Strand Breaks and Chromosomal Aberrations	Brooks Low	WWW, Rm 201
October 16, 2008	Molecular Mechanisms of DNA Damage	Dean Rupp	WWW, Rm 201
October 23, 2008	Molecular Mechanisms of DNA Repair	Dean Rupp	WWW, Rm 201
October 30, 2008	Repair at the Cellular Level	Dean Rupp	WWW, Rm 201
<b>November 6, 2008</b>	<b>Exam</b>	<b>Yilun Liu Dean Rupp, Brooks Low</b>	WWW, Rm 201
November 13, 2008	Mechanisms of Cell Death	Doug Brash	WWW, Rm 201
November 20, 2008	Molecular Signaling	Doug Brash	WWW, Rm 201
<b>November 27, 2008</b>	<b>HOLIDAY</b>	<b>HOLIDAY</b>	<b>HOLIDAY</b>
December 4, 2008	Molecular Signaling	Doug Brash	WWW, Rm 201
December 11, 2008	Cancer	William Summers	WWW, Rm 201
December 18, 2008	Cancer	William Summers	HRT, Rm 317
<b>January 1, 2009</b>	<b>HOLIDAY</b>	<b>HOLIDAY</b>	<b>HOLIDAY</b>
January 8, 2009	Radiation Carcinogenesis	William Summers	WWW, Rm 201
<b>January 15, 2009</b>	<b>Exam</b>	<b>Doug Brash, William Summers</b>	<b>WWW, Rm 201</b>
January 22, 2009	Tumor Microenvironment	Zhong Yun	WWW, Rm 201
January 29, 2009	Cell and Tissue Survival Assays	Sara Rockwell	WWW, Rm 201
February 5, 2009	Solid Tumor Systems	Sara Rockwell	WWW, Rm 201
February 12, 2009	Models of Cell Survival	Sara Rockwell	WWW, Rm 201
February 19, 2009	Oxygen Effect	Zhong Yun	WWW, Rm 201
February 26, 2009	Cell and Tissue Kinetics	Sara Rockwell	WWW, Rm 201
<b>March 5, 2009</b>	<b>Exam</b>	<b>Sara Rockwell, Zhong Yun</b>	WWW, Rm 201

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March 12, 2009	Radiosensitizers, Bioreductive drugs, Radioprotectors	Sara Rockwell	WWW, Rm 201
March 19, 2009	Time Body Irradiation	Kenneth Roberts	WWW, Rm201
March 26, 2009	Clinically relevant Normal tissue responses	Susan Higgins	WWW, Rm 201
April 2, 2009	Radiobiological aspects Of alternative dose delivery systems	Joanne Weidhaas	WWW, Rm 201
April 9, 2009	Time, Dose, Fractionation	Joanne Weidhaas	WWW, Rm 201
April 16, 2009	Radiation effects in developing embryo	Kenneth Roberts	WWW, Rm 201
April 23, 2009	Therapeutic Ratio	Joanne Weidhaas	WWW, Rm 201
<b>April 30, 2009</b>	<b>Exam</b>	<b>Joanne Weidhaas, Kenneth Roberts, Sara Rockwell</b>	WWW, Rm 201
May 7, 2009	Brachtherapy	Susan Higgins	WWW, Rm 201
May 14, 2009	Mechanisms of normal tissue response	Susan Higgins	WWW, Rm 201
May 21, 2009	Hyperthermia	Meena Moran	WWW, Rm 201
May 28, 2009	Chemotherapeutic agents and radiation therapy and gene therapy	Junjie Chen	WWW, Rm 201
June 4, 2009	Heritable Effects of Radiation	Junjie Chen	WWW, Rm 201
June 11, 2009	Radiation and Cataracts	Bryan Chang	WWW, Rm 201
June 18, 2009	Reserved in case we need a make up day		WWW, Rm 201
<b>June 25, 2009</b>	<b>Exam</b>	<b>Susan Higgins, Junjie Chen, Meena Moran Bryan Chang</b>	<b>WWW, Rm 201</b>

- 1. Lectures last for one hour.**
- 2. Handouts are to be given for each lecture. Handouts can be the slides. Please cite references in the handouts.**
- 3. Provide a PowerPoint file of your lecture to Amrit Dhawan for uploading onto the Department Server.**
- 4. Please give practice questions for each lecture. Practice questions can be taken from the in-service exam and other exam books.**
- 5. Please e-mail exam questions to [Amrit Dhawan \(amrit.dhawan@yale.edu\)](mailto:amrit.dhawan@yale.edu) one week prior to the exam date. 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. Include the answers on a separate sheet, along with the points to be given for each answer.**
- 6. Zhong/Yilun will grade the exams and report on the results.**