

**HARVARD MEDICAL SCHOOL**  
**Joint Program in Nuclear Medicine**  
**Didactic Curriculum**  
**2008**

- TITLE:** Radiation Biology and Radionuclide Therapy
- INSTRUCTORS:** S.J. Adelstein, MD, PhD, A.I. Kassis, PhD, R.A. Powsner, MD, and A.D. Van den Abbeele, MD
- TEXTBOOK:** F.A. Mettler, Jr. and R.D. Moseley, Jr. Medical Effects of Ionizing Radiation, Grune and Stratton, Orlando, 1985.
- A.I. Kassis. Radiotargeting agents for cancer therapy. *Expert Opin. Drug Deliv.* **2**, 981–991 (2005). (offprints will be distributed upon request).
- E.J. Hall. Radiobiology for the Radiologist, 5nd edition. Lippincott Williams & Wilkins, Philadelphia, 2000.
- Nuclear Oncology, 2001, I Khalkhali, JC Maublant, SJ Goldsmith
- OBJECTIVES:** To provide a background in the fundamentals of radiation biology and its application to radiation risk and targeted radionuclide therapy.
- TIME:** 8:00 am - 9:00 am
- LOCATION:** **Kassis & Adelstein:** Armenise Bldg. Rm 136, Harvard Medical School  
**Van den Abbeele:** Nuclear Medicine L2 Conference Room, DFCI  
**Powsner:** Nuclear Medicine Conference Room, VA Boston Medical Center

Guidelines for successful completion of the course: Residents will be expected to demonstrate that they understand the radiobiology principles underlying the therapeutic use of radionuclides by passing the exam given at the end of the course. If a resident fails to demonstrate mastery of the material, the resident will be given reading material and will be re-examined.

**SCHEDULE**  
2008

<u>Date</u>	<u>Topic</u>	<u>Faculty</u>
March 24	Cellular and Tissue Effects 1	A.I. Kassis
March 26	Cellular and Tissue Effects 2	A.I. Kassis
March 28	Radiobiology of Radionuclide Therapy	A.I. Kassis
April 2	Thyroid Cancer and Neuroendocrine Tumors	R.A. Powsner
April 4	Carcinogenesis	S.J. Adelstein
April 7	Alleviation of Bone Pain/RIT	A.D. Van den Abbeele
April 9	Inheritable Changes and Fetal Effects	S.J. Adelstein
April 11	Final Examination	A.I. Kassis