Radiobiology Course for Radiation Oncology Residents 2015

Sept 14: Physics and Chemistry of Radiation Absorption—Chapter 1
Sept 21: Irradiation Induced DNA Damage—Chapter 2
Sept 28: DNA Repair—Chapter 2
Oct. 5: Cell Survival Curves—Chapter 3
Oct. 12: Radiosensitivity and Cell Age in the Mitotic Cycle—Chapter 4
Oct. 19: Fractionated Radiation and Dose Rate Effect—Chapter 5
Oct. 26: Oxygen Effect, and Reoxygenation—Chapter 6
Nov. 2: Linear Energy Transfer and Relative Biologic Effectiveness—Chapter 7
Nov. 9: Acute Radiation Syndrome—Chapter 8
Nov. 16: Radioprotectors.—Chapter 9
Nov. 30: Radiation Carcinogenesis—Chapter 10
Dec. 7: Heritable Effects of Radiation—Chapter 11
Dec 14: Effects of Radiation on the Embryo and Fetus—Chapter 12
Dec 21: Radiation Cataractogenesis and Radiologic Terrorism—Chapter 13 and Chapter 14
Jan. 4: Doses and Risks in Diagnostic Radiology, Interventional Radiology and Cardiology and Nuclear Medicine—Chapter 16
Jan. 11: Radiation Protection—Chapter 17
Jan. 18: Cancer Biology—Chapter 18
Jan. 25: Dose-Response Relationship for Model Normal Tissues—Chapter 19
Feb. 1: Clinical Response of Normal Tissues—Chapter 20
Feb. 8: Model Tumor Systems—Chapter 21
Feb. 15: Cell, Tissue and Tumor Kinetics—Chapter 22
Feb. 22: Time, Dose and Fractionation—Chapter 23
Feb. 29: Retreatment after Radiotherapy: The Possibilities and the Perils—Chapter 24
March 7: Alternative Radiation Modalities—Chapter 25
March 14: The Biology and Exploitation of Tumor Hypoxia—Chapter 26
March 21: Chemotherapeutic Agents from the Perspective of the Radiation Biologist—Chapter 27
March 28: Hyperthermia—Chapter 28
April 4: Final