

# RADIATION ONCOLOGY

*Emeriti:* Malcolm A. Bagshaw, Peter Fessenden, Don R. Goffinet, George M. Hahn, Kendric Smith

*Chair:* Richard T. Hoppe

*Professors:* J. Martin Brown, Sarah S. Donaldson, Amato J. Giaccia, Steven L. Hancock, Richard T. Hoppe, Quynh-Thu Le, Daniel S. Kapp, Steven A. Liebel

*Associate Professors:* Iris C. Gibbs, Paul Keall, Christopher R. King, Susan J. Knox, Gary Luxton, Lei Xing

*Assistant Professors:* Laura Attardi, Daniel Chang, Nicholas Denko, Edward Graves, Albert C. Koong

*Consulting Professor:* Robert M. Sutherland

Courses given in Radiation Oncology have the subject code RADO. For a complete list of subject codes, see Appendix.

Radiation Oncology focuses on the use of radiation for cancer therapy and research. The department does not offer degrees; however, its faculty teach courses open to medical students, graduate students, and undergraduates. The department also accepts students in other curricula as advisees for study and research. Graduate students in Biophysics and Cancer Biology may perform their thesis research in the department. Undergraduates may arrange individual research projects under supervision of faculty.

At the present time, the major areas of basic research investigation in the department include: DNA repair in mammalian cells after ionizing irradiation; studies of the mechanism of tumor hypoxia in animal tumors; development of new anti-cancer drugs to exploit tumor hypoxia; cytogenetic and molecular methods of predicting the sensitivity of individual tumors to cancer therapy; radiolabeled monoclonal antibodies for cancer detection and treatment; studies of oxygen levels in human tumors using polarographic electrodes; clinical trials of a new hypoxic cytotoxic agent (tirapazamine); studies of the late effects of cancer therapy; and techniques of conformal and intensity modulated radiation therapy.

## COURSES

Course and lab instruction in the Department of Radiation Oncology conforms to the "Policy on the Use of Vertebrate Animals in Teaching Activities," the text of which is available at <http://www.stanford.edu/dept/DoR/rph/8-2.html>.

The following are open to undergraduates and graduate students.

### **RADO 101. Readings in Radiation Biology**

*1-18 units, Aut, Win, Spr, Sum (Staff)*

**RADO 199. Undergraduate Research**—Investigations sponsored by individual faculty members. Prerequisite: consent of instructor.

*1-18 units, Aut, Win, Spr, Sum (Staff)*

**RADO 299. Directed Reading in Radiation Oncology**—Prerequisite: consent of instructor.

*1-18 units, Aut, Win, Spr, Sum (Staff)*

**RADO 399. Graduate Research**—Investigations sponsored by individual faculty members. Prerequisite: consent of instructor.

*1-18 units, Aut, Win, Spr, Sum (Staff)*

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