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RADIATION ONCOLOGY

BRIEF DESCRIPTION

The Department of Radiation Oncology offers a broad range of technologically advanced services for patients of UNC Hospitals. The department conducts comprehensive consultations in close cooperation with other oncology specialists and referring physicians constituting an integrated approach to the treatment of cancer patients. The department, presently located in a 42,000 square-foot building, is fully equipped to address patients' radiation oncology needs; specifically, in regard to optimizing radiation dose to the targeted area and minimizing the dose to the surrounding normal tissues. In Summer 2009, we will be moving into the new North Carolina Cancer Center. There, we will have 380,000 square feet of space and updated facilities.

The Department of Radiation Oncology welcomes requests for consultations regarding external beam therapy, interstitial and intracavitary radioisotope treatment, eye plaque, brachytherapy, conventional radiation treatment planning, three-dimensional radiation treatment planning, stereotactic radiosurgery, fractionated stereotactic radiotherapy, intra-operative radiation, image-guided radiation therapy (IGRT), intensity-modulated radiation therapy, and adaptive radiation therapy.

Department facilities include five megavolt treatment units: three 15/6 MeV linear accelerators capable of both photon and a range of electron beam treatments, a dedicated intra-operative linear accelerator housed in the main operating suite, and CyberKnife dedicated to stereotactic radiosurgery. For accurate tumor and normal tissue localization, a dedicated Radiation Oncology CT scanner is available for 3-dimensional treatment planning. We have a dedicated CT scanner with the treatment room for verification of treatment accuracy. A computerized, high-dose rate remote-controlled afterloading unit is used for specified implant patients.

The staff includes eight attending physicians and four residents, with excellent physics, radiobiology, and ancillary support personnel. On-going radiobiology research efforts expedite a more rapid integration of laboratory developments into the clinical setting.

SPECIAL SERVICES

A variety of individually tailored techniques can be applied to manage complex oncological conditions. These include interstitial implant radiation procedures afterloaded with Iridium-192 for head and neck, breast, and gynecological cancers; Iodine-125 seed implantation for prostate, and head and neck cancers, and Cesium-137 for gynecological malignancies. Other special services include treatment with multiple fractions per day, the combined use of radiation and chemotherapy, high-dose rate implants and total body irradiations for bone marrow transplants. The department participates in several national cooperative clinical research trials and also has in-house research treatment protocols.

HOW TO CONTACT US

PHONE (919) 966-7700

FAX: (919) 966-7681

MAILING ADDRESS

Department of Radiation Oncology

CB# 7512

University of North Carolina

School of Medicine

Chapel Hill, N. C. 27599-7512

WEB SITE: <http://www.med.unc.edu/radonc/>

CHAIR

Lawrence B. Marks, M.D.

Robert D. Adams, Ed.D., M.P.H.

Assistant Professor

Work Phone: (919) 966-1101

Procedures/Research:

Radiotherapy and medical dosimetry education.

Certifications:

Medical Dosimetry - *Board Certified* (1995)

Radiation Therapy - *Board Certified* (1985)

Radiography - *Board Certified* (1980)

Medical School: North Carolina State University, Raleigh, NC, 1999

University of North Carolina, Chapel Hill, NC, 1995



Rodger F. Anderson, Jr. M.D.

Clinical Appointment Phone: (919) 784-3018



Edward L. Chaney, Ph.D., F.A.C.R.

Professor

Work Phone: (919) 843-7586

Procedures/Research:

Image processing and display for radiotherapy treatment design.

Certifications:

Radiological Physics - *Board Certified* (1974)

Medical School: University of Tennessee, Knoxville, Tennessee, 1969



Xiao Sha Chang, Ph.D.

Associate Professor, Head, Physics and Computing Divisions

Work Phone: (919) 966-0400

Procedures/Research:

Radiotherapy physics, radiotherapy treatment optimization and delivery, nanotechnology based novel irradiation and imaging systems for cellular and animal model studies.

Medical School: Clark, 1989



Ronald C. Chen, M.D.

Assistant Professor

Clinical Appointment Phone: (919) 966-7700



Adrienne D. Cox, Ph.D.

Associate Professor of Radiation Oncology and Pharmacology, Head, Division of Cancer Research

Work Phone: (919) 966-7712

Procedures/Research:

Ras oncogene superfamily and signal transduction; lipid modification of proteins and cancer treatment; mechanisms of radiation resistance.

Medical School: Eastern Virginia Medical School, Norfolk, VA, 1987



Jim Fiordalisi, Ph.D.

Assistant Professor

Work Phone: (919) 966-7711

Procedures/Research:

Rho family GTPases, PRL phosphatases, invasion and metastasis.

Medical School: Washington University, St. Louis, MO, 1994

Fellowship: University of North Carolina, 1999-2002, Cell Biology and Biochemistry

University of North Carolina, 1996-1999, Biochemistry



Mark Foskey, Ph.D.

Assistant Professor

Work Phone: (919) 966-1101

Procedures/Research:

Mathematical and computational issues in three-dimensional radiation treatment planning.

Medical School: University of California at San Diego, La Jolla, CA, 1994

Postdoctoral Research Associate: University of North Carolina, 2001-2002, Computer Science



Jan S. Halle, M.D.

Associate Professor

Work Phone: (919) 417-0725

Work Phone: (919) 966-7700

Procedures/Research:

Breast, lung and esophageal cancers.

Certifications:

Radiation Oncology - *Board Certified* (1982)

Medical School: Tufts University, 1975

Residency: UNC, 1975-1981, Radiation Oncology



Leroy G. Hoffman, Jr. M.D.

Associate Professor

Clinical Appointment Phone: (919) 784-3018

Certifications:

Pediatrics - *Board Certified* (1980)

Radiation Oncology - *Board Certified* (1985)

Medical School: N.C. Baptist Hospital, Winston-Salem, NC, 1982-1985, Radiation Therapy

Internship and Residency: N.C. Baptist Hospital, 1978-1980, Pediatrics

Residency: N.C. Baptist Hospital, 1982-1985, Radiation Therapy



Kevin Karbowski, M.P.H., C.P.A.

Assistant Chair for Administration

Work Phone: (919) 966-0400

Graduate School: University of Michigan, Ann Arbor, MI, 1992, Health Administration



Catherine G. Lee, M.D.

Associate Professor

Clinical Appointment Phone: (919) 784-3018

Certifications:

Radiation Oncology - *Board Certified* (1993)

Medical School: University of South Florida, Tampa, Florida, 1984-1988

Residency and Fellowship: Memorial Sloan-Kettering Cancer Center, 1989-1992, Radiation Oncology



Jun Lian, Ph.D.

Assistant Professor

Work Phone: (919) 966-1101

Procedures/Research:

Intensity-modulated radiotherapy (IMRT), biological modeling based optimization, medical image processing.

Certifications:

Therapeutic Radiologic Physics - *Board Certified* (2006)

Medical School: Case Western Reserve University, Cleveland, OH, 2002

Fellowship: Stanford, 2001-2003, Medical Physics



Lawrence B. Marks, M.D.

Chair, Professor

Work Phone: (919) 966-0400

Procedures/Research:

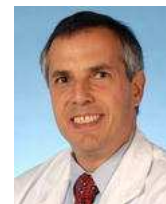
Breast and lung cancer. Use of technology to minimize risk to normal tissues.

Certifications:

Therapeutic Radiology - *Board Certified* (1989)

Medical School: University of Rochester, Rochester, NY, 1981-1985

Residency: Massachusetts General Hospital - Dept. of Radiation Medicine, 1986-1989



David E. Morris, M.D.

Associate Professor; Co-director, Neuro-oncology Multi-disciplinary Program

Work Phone: (919) 966-7700

Procedures/Research:

Cyberknife radiosurgery, brain and skull base tumors, lymphomas, pediatric malignancies, lung cancer, palliative care, radiosurgery, intraoperative radiation, ophthalmologic malignancies, dermatologic malignancies and health services research.

Certifications:

Radiation Oncology - *Board Certified* (1999)

Medical School: Georgetown University, Washington, DC, 1994



Robert D. Ornitz, M.D.

Associate Professor

Clinical Appointment Phone: (919) 784-3018

Medical School: University of Oklahoma, Oklahoma City, Oklahoma, 1967-1971

Residency: Duke University, 1972-1975, Therapeutic Radiology



James A. Raleigh, Ph.D.

Professor Emeritus

Work Phone: (919) 260-6398

Procedures/Research:

Tumor physiology and radiation biochemistry.

Medical School: Massachusetts Institute of Technology, 1967



Julian G. Rosenman, M.D., Ph.D.

Professor

Work Phone: (919) 966-7700

Procedures/Research:

Prostate, head and neck, and lung cancers; 3-D treatment planning, and image processing.

Certifications:

Radiation Oncology - *Board Certified* (1982)

Medical School: University of Texas, Dallas, Texas, 1977

University of Texas, Austin, TX, 1971

Residency: Massachusetts General, 1977-1981, Radiation Oncology



Carolyn I. Sartor, M.D.

Professor

Work Phone: (919) 966-7700

Procedures/Research:

Breast cancer therapy and research.

Certifications:

Radiation Oncology - *Board Certified* (1997)

Medical School: University of Michigan, 1992

Residency: University of Michigan, 1993-1997, Radiation Oncology



Charles W. Scarantino, M.D., Ph.D.

Associate Professor

Clinical Appointment Phone: (919) 784-3018

Certifications:

American Board of Radiologists - *Board Certified* (1978)

Doctoral: St. John's University, 1970, Cell Physiology

Medical School: Bowman-Gray School of Medicine, Winston-Salem, NC, 1973

Residency: University of Rochester, 1974-1976, Radiation Oncology



Eric C. Schreiber, Ph.D.

Assistant Professor

Work Phone: (919) 966-1101

Procedures/Research:

Monte Carlo modeling and simulation of radiation therapy. Development of novel radiation therapy devices and treatment modalities.

Medical School: Duke University, Durham, NC, 2000



Lily Tang, Ph.D.

Assistant Professor

Work Phone: (919) 966-0400

Procedures/Research:

Image guided radiotherapy, patient safety.

Doctoral: Rensselaer Polytechnic Institute, 2000-2005, Electrical Engineering

M.S.: University of Waterloo, 2000, Electrical Engineering



Joel E. Tepper, M.D.

Hector MacLean Distinguished Professor of Cancer Research

Work Phone: (919) 966-0400

Procedures/Research:

Gastrointestinal oncology, bone and soft tissue sarcomas, radiation treatment planning.

Certifications:

Radiation Oncology - *Board Certified* (1976)

Medical School: Washington University, St. Louis, MO, 1972

Residency: Massachusetts General, 1973-1977, Radiation Oncology



Mahesh A. Varia, M.B., Ch.B., F.A.C.R.

Professor

Work Phone: (919) 966-7700

Procedures/Research:

Gynecological cancers, interstitial implants, radiosurgery, intra-abdominal P-32, remote after-loading high dose rate techniques, tumor hypoxia and physiology, radiation treatment planning.

Certifications:

Radiation Oncology - *Board Certified* (1976)

Medical School: University of Liverpool Medical School, 1967

University of Liverpool Medical School, 1967



Andrew Z. Wang

Clinical Appointment Phone: (919) 966-7700



Justin Wu, M.D.

Associate Professor

Clinical Appointment Phone: (919) 784-3018



Certifications:

Radiation Oncology - *Board Certified* (2006)

Residency: Duke University, 1992-1996, Radiation Oncology

Medical School: Duke University, Durham, NC, 1990

Elaine M. Zeman, Ph.D.

Associate Professor

Work Phone: (919) 843-7950

Procedures/Research:

Teaching of radiation and cancer biology



Jian Zhang, Ph.D.

Assistant Professor

Work Phone: (919) 966-1101



Medical School: University of North Carolina, Chapel Hill, NC, 2005

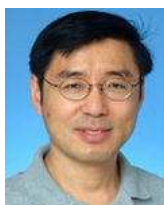
Yanping Zhang, Ph.D.

Associate Professor

Work Phone: (919) 966-7713

Procedures/Research:

Molecular mechanisms of oncogenes and tumor suppressor genes.



Medical School: University of Nebraska, Lincoln, NE, 1992

Fellowship: University of North Carolina, 1997-2000, Molecular Biology

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