Department of Radiation Oncology

The Department of Radiation Oncology (http://radonc.wustl.edu) was created on July 1, 2001, having been part of the Mallinckrodt Institute of Radiology for many decades. The department has a broad academic program that focuses on excellence in patient care and the development of new treatment paradigms; innovative research in each of the four divisions of clinical, physics, biology and bioinformatics; and teaching for residents in radiation oncology, medical students and allied health personnel. The department is one of the largest, most academically balanced and best equipped in the country, and is responsible for all radiation therapy procedures at Washington University Medical Center. Our faculty have gained international recognition for innovative technological advances in physics and treatment planning, biological research, computer applications and clinical investigation.

Milestones

- Implementation of novel respiratory gating algorithms
- Development of biomarkers of DNA repair capacity of tumors
- Demonstrated the use of proton therapy
- Implementation of first Mevion S250 single room proton therapy system
- Implementation of real-time MRI guidance for radiation therapy treatment with the ViewRay system. Real-time MRI guidance provides the ability to see tumors move in real-time during a patient's entire treatment. This helps ensure that tumor targets are hit and healthy tissue is spared.
- Acquisition of high intensity focused ultrasound (HIFU) with MRI thermometry mapping

The Department of Radiation Oncology currently occupies a large and convenient clinical facility on the lower level of the Center for Advanced Medicine. The downtown clinical facility includes nine linear accelerator rooms, three simulator rooms, and a brachytherapy center with two high dose-rate treatment units. Furthermore, the facility houses the latest Gamma Knife Perfexion unit. We have advanced treatment planning computer systems for 3-D conformal and intensity-modulated radiation therapy. We have five linear accelerators with on-board CT imaging capability. The brachytherapy suite includes capability for high dose-rate remote afterloading and for image-guided permanent prostate seed implants. Interstitial and external hyperthermia treatments are also available. We recently implemented a new type of proton treatment facility, using a superconducting synchrocyclotron mounted on a gantry, and also recently implemented the world's first MRI-guided radiation therapy treatment program. Additionally, the department provides radiation therapy treatment at BJ South County, BJ West County, BJ Christian Hospital Northeast, and BJ St. Peters.

The Physics faculty have research laboratories and offices on the fourth floor of the Clinical Sciences Research Building plus designated areas adjacent to the clinical facility in the CAM building. The Radiation Biology laboratory and faculty offices are housed at the 4511 Forest Park Building and Wohl Hospital Building.

Website: http://radonc.wustl.edu

Degrees & Requirements

While the Department of Radiation Oncology does not offer its own degree, some of the department's courses are open to students in the MD and MSTP (MD/PhD) programs. Further information about the MD and MSTP degrees can be found in the Degrees & Programs Offered (http://bulletin.wustl.edu/medicine/degrees) section of this Bulletin.

Research

Please visit the Department of Radiation Oncology website (http://radonc.wustl.edu/research) for more information about current research in the department.

Faculty

Department Head

Dennis Hallahan, MD

Clerkship Director

Maria Thomas, MD

Visit our website for more information about our faculty (http://radonc.wustl.edu/healthcareteam.aspx) and their appointments.

A

Christopher Abraham, MS, MD
Assistant Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)
MS Washington Univ in St. Louis 2011
MD Saint Louis University 2006
BS Medical College Georgia 2005

Michael Bernard Altman, PHD
Assistant Professor of Radiation Oncology (primary appointment)
PHD University of Chicago 2010

Anthony John Apicelli III, MD, PHD
Assistant Professor of Radiation Oncology (primary appointment)
MD Washington Univ in St. Louis 2009
PHD Washington Univ in St. Louis 2009
BS Princeton University 1999

Abdelkareem Azab, PHD
Assistant Professor of Radiation Oncology (primary appointment)
PHD Hebrew University 2007

Kathy Baglan
Instructor in Clinical Radiation Oncology (primary appointment)

Brian Christopher Baumann, MD
Assistant Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)
MD University of Pennsylvania 2012
BA Princeton University 2003

Walter R Bosch, PHS, MS, BE
Associate Professor of Radiation Oncology (primary appointment)
PHS Washington Univ in St. Louis 1990
MS Washington Univ in St. Louis 1983
BE Washington Univ in St. Louis 1980

Jeffrey D Bradley, MD
S. Lee Kling Professor of Radiation Oncology (primary appointment)
BA Drury College 1989
MD University of Arkansas 1993

Bin Cai, PHD
Instructor in Radiation Oncology (primary appointment)
PHD Ohio University 2011

Jochen Cammin, PHD
Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)
PHD University of Bonn 2004

David T Curiel, PHD, MD
Distinguished Professor of Radiation Oncology (primary appointment)
Professor of Medicine
Professor of Obstetrics and Gynecology
PHD University of Groningen 2000
BA West Georgia College 1978
MD Emory University 1982

Mackenzie Daly, MD
Assistant Professor of Radiation Oncology (primary appointment)
MD University of MO Kansas City 2005

Arash Darafsheh, PHD, MS, PHD, MS
Assistant Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)
PHD University of NC Charlotte 2013
MS University of NC Charlotte 2011
PHD University of Pennsylvania 2015
BS University of Tehran 2004
MS Shahid Beheshti University 2007

Venkata Rao Devineni, MD
Associate Professor of Clinical Radiation Oncology (primary appointment)
MD Osmania Medical College 1973

Todd Alan DeWees, MSSP, PHD
Assistant Professor of Radiation Oncology (primary appointment)
MSSP Arizona State University 2003
BA Dana College 2001
PHD University of MO Columbia 2009

Igor Dmitriev, PHD
Assistant Professor of Radiation Oncology (primary appointment)
PHD SRC Vector 1994

H Michael Gach, PHD
Associate Professor of Radiation Oncology (primary appointment)
Associate Professor of Radiology
PHD University of Pittsburgh 1998

Jose L Garcia, MS
Assistant Professor of Radiation Oncology (primary appointment)
MS Finch Univ of Health Sciences 1997
BS University of Puerto Rico 1995

Hiram Alberto Gay, MD
Associate Professor of Radiation Oncology (primary appointment)
BS University of Puerto Rico 1996
MD University of Puerto Rico 2000

Sreekrishna M Goddu, MS, PHD
Associate Professor of Radiation Oncology (primary appointment)
PHD Andhra University 1991

Olga Leonidovna Green, MS, PHD
Assistant Professor of Radiation Oncology (primary appointment)
MS Washington Univ in St. Louis 2004
PHD Washington Univ in St. Louis 2008
BS Washington Univ in St. Louis 2002

Perry W Grigsby, MS, MD, MBA
Professor of Radiation Oncology (primary appointment)
Professor of Obstetrics and Gynecology
Professor of Radiology
BS University of Kentucky 1974
MS University of Kentucky 1978
MD University of Kentucky 1982
MBA Washington Univ in St. Louis 1990

Yuxing Gu, PHD
Assistant Professor of Radiation Oncology (primary appointment)
PHD University of MO St Louis 2014

Lannis Hall, M PH, MD
Assistant Professor of Clinical Radiation Oncology (primary appointment)  
BA University of Michigan 1988  
M PH Saint Louis University 1995  
MD Howard University 1992  
Dennis E Hallahan, MD  
Professor of Radiation Oncology (primary appointment)  
Elizabeth H and James S McDonnell III Distinguished Professor of Medicine  
Head of the Department of Radiation Oncology  
Professor of Biomedical Engineering  
Professor of Cell Biology and Physiology  
Professor of Molecular Microbiology  
Professor of Pathology and Immunology  
BS University of Illinois 1980  
MD Rush University 1984  
Jiayi Huang, MD  
Assistant Professor of Radiation Oncology (primary appointment)  
MD University of Massachusetts 2007  
Geoffrey Douglas Hugo  
Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)  
K  
James Alexander Kavanaugh, MS  
Instructor in Radiation Oncology (primary appointment)  
MS Louisiana St University 2011  
BS University of Saint Thomas 2008  
Rao Fawwad Khan, PHD, MD  
Associate Professor of Radiation Oncology (primary appointment)  
Associate Professor of Biomedical Engineering  
PHD McMaster University 2003  
MD Quaid-Azam University 1997  
Hyun Kim, MD  
Assistant Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)  
BS University of California 2006  
MD University of Pittsburgh 2012  
Nels C Knutson, PHD, MS  
Instructor in Radiation Oncology (primary appointment)  
PHD Univ of Massachusetts Lowell 2016  
MS Louisiana St University 2012  
BS University of Montana Missoula 2009  
L  
Hua Li, PHD  
Assistant Professor of Radiation Oncology (primary appointment)  
BS Huazhong University of Science 1994  
PHD Huazhong University of Science 2001  
Hui Li, PHD, MS  
Associate Professor of Radiation Oncology (primary appointment)  
BS Huashong University of Science 1992  
PHD Friedrich-Alexander Universit 2001  
MS Chinese Academy of Sciences 1995  
Hsiu-San Lin, MD, PHD  
Professor Emeritus of Radiation Oncology (primary appointment)  
MD National Taiwan University 1960  
PHD University of Chicago 1968  
M  
Stephanie Markovina, MD  
Assistant Professor of Radiation Oncology (primary appointment)  
MD University of Wisconsin-Madiso 2010  
Thomas Rolf Mazur, PHD  
Instructor in Radiation Oncology (primary appointment)  
BS Union College New York 2007  
PHD University of Texas Austin 2014  
Jeff Michael Michalski, MBA, MD  
Carlos Perez Distinguished Professor of Radiation Oncology (primary appointment)  
Vice Chairman of Radiation Oncology  
BS Univ of Wisconsin Madison 1982  
MBA Washington Univ in St. Louis 2001  
MD Univ of Wisconsin Madison 1986  
Timothy John Mitchell, PHD, MS, PHD  
Instructor in Radiation Oncology (primary appointment)  
BS John Carroll University 2005  
PHD Washington Univ in St. Louis 2011  
MS Washington Univ in St. Louis 2007  
PHD University of MO St Louis 2014  
Daniel F Mullen, DDENT, MS  
Assistant Professor of Radiation Oncology (primary appointment)  
DDENT University of Missouri 1977  
MS University of Missouri 1984  
BS University of Missouri 1972  
Sasa Mutic, PHD, MS  
Professor of Radiation Oncology (primary appointment)  
Vice Chair Medical Physics and Clinical Strategy in Radiation Oncology  
BS Cameron University 1994  
PHD University of MO Columbia 2011  
MS University of Colorado Boulder 1996  
Robert J Myerson, PHD, MD  
Professor Emeritus of Radiation Oncology (primary appointment)  
BA Princeton University 1969  
PHD University of California 1974  
MD University of Miami 1980  
P  
Parag J. Parikh, MD
Chunjoo Park, BE, PHD, ME
Associate Professor of Radiation Oncology (primary appointment)
BE Hanyang University Hospital 2007
PHD University of CA Berkeley 2013
ME The Catholic Univ of Korea 2009

Stephanie Mabry Perkins, MD
Associate Professor of Radiation Oncology (primary appointment)
BS Union University 2001
MD University of Tenn Memphis 2005

James Vernon Piephoff, MD
Instructor in Clinical Radiation Oncology (primary appointment)
BS Citadel 1985
MD University of South Carolina 1989

James A Purdy, MA, PHD
Emeritus Professor of Radiation Oncology (primary appointment)
MA University of Texas Austin 1969
PHD University of Texas Austin 1971
BS Lamar University 1967

Michael Reilly, MS, PHD
Instructor in Radiation Oncology (primary appointment)
BS Univ of IL -Urbana-Champaign 2003
MS Univ of IL-Urbana-Champaign 2005
PHD Univ of IL-Urbana-Champaign 2009

Francisco Javier Reynoso, PHD, MS
Instructor in Radiation Oncology (Pending Dean's Approval)
(PH primary appointment)
PHD Georgia Tech 2014
MS Georgia Tech 2008

Michael Charles Roach, MD
Assistant Professor of Radiation Oncology (primary appointment)
BS Vanderbilt University 2007
MD Duke University 2011

Clifford Grant Robinson, MD
Associate Professor of Radiation Oncology (primary appointment)
MD Case Western Reserve Univ 2004
BS University of Pittsburgh 2000

Buck Edward Rogers, PHD, MA
Professor of Radiation Oncology (primary appointment)
Adjunct Professor of Chemistry (Courtesy Affiliation)
Professor of Radiology
PHD Washington Univ in St. Louis 1995

BS Loyola University Chicago 1989
MA Washington Univ in St. Louis 1991

Maria A Thomas, MD, PHD
Assistant Professor of Radiation Oncology (primary appointment)
MD Saint Louis University 2008
BS Creighton University 2000
PHD Saint Louis University 2006

Wade L Thorstad, MD
Associate Professor of Radiation Oncology (primary appointment)
BS Trinity University 1986
MD University of Texas Austin 1991

Dinesh Thotala, PHD, MS
Assistant Professor of Radiation Oncology (primary appointment)
PHD Bangalore University 1998
BS Bangalore University 1990
MS Bangalore University 1993

Amaris Renee Tippey, PHD
Assistant Professor of Clinical Radiation Oncology (primary appointment)
PHD East Carolina University 2014

Christina Irene Tsien, MD
Professor of Radiation Oncology (primary appointment)
BS John Abbot College 1990
MD McGill University 1995

Gregory Riccardo Vlacich, MD, PHD
Assistant Professor of Radiation Oncology (primary appointment)
MD University of Chicago 2009
PHD University of Chicago 2007

Bruce J Walz, MD
Associate Professor of Clinical Radiation Oncology (primary appointment)
BA Washington Univ in St. Louis 1962
MD Washington Univ in St. Louis 1966

Xiaowei Wang, PHD
Associate Professor of Radiation Oncology (primary appointment)
BS Nankai University 1993
PHD Tufts University 2000

Jeffrey F Williamson
Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)

Deshan Yang, MS, PHD
Associate Professor of Radiation Oncology (primary appointment)
BS Tsinghua University, China 1992
MS Illinois Institute of Technol 2001
PHD Univ of Wisconsin Madison 2005

Qin Yang, MD, PHD
Associate Professor of Radiation Oncology (primary appointment)
MD West China University 1983
PHD Heidelberg University 1997

Jin Zhang, PHD, MS
Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)
PHD University of Connecticut 2012
MS Tianjin Polytech University 2008
BS Tianjin University 2005

Tiezhi Zhang, MS, PHD
Assistant Professor of Radiation Oncology (primary appointment)
MS Drexel University 1999
BS Jilin Medical University 1994
PHD Univ of Wisconsin Madison 2004

Tianyu Zhao, PHD, MS
Assistant Professor of Radiation Oncology (primary appointment)
BS Shanghai Jiao Tong University 1998
PHD Washington Univ in St. Louis 2010
MS Shanghai Jiao Tong University 2001

Imran Zoberi, MD
Professor of Radiation Oncology (primary appointment)
BS University of South Dakota 1992
MD Washington Univ in St. Louis 1996

Jacqueline Esthappan Zoberi, PHD
Associate Professor of Radiation Oncology (primary appointment)
PHD University of Chicago 2000
BA University of Chicago 1995

Courses
For course information, please visit the Radiology page (http://bulletin.wustl.edu/medicine/departments/radiology/#courses) of this Bulletin.