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

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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
BS Princeton University 1999
PHD Washington Univ in St. Louis 2009

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

B

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BA Princeton University 2003
MD University of Pennsylvania 2012

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MD University of Arkansas 1993
BA Drury College 1989

C

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PHD University of Bonn 2004

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Professor of Medicine
Professor of Obstetrics and Gynecology
MD Emory University 1982
BA West Georgia College 1978
PHD University of Groningen 2000

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MS University of NC Charlotte 2011
MS Shahid Beheshti University 2007
BS University of Tehran 2004
PHD University of NC Charlotte 2013

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MD Osmania Medical College 1973

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PHD University of MO Columbia 2009

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PHD SRC Vector 1994

G

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Associate Professor of Radiology
PHD University of Pittsburgh 1998

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MS Finch Univ of Health Sciences 1997
BS University of Puerto Rico 1995

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MD University of Puerto Rico 2000
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PHD Andhra University 1991

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BS Washington Univ in St. Louis 2002

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Professor of Radiology
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BS University of Kentucky 1974
MD University of Kentucky 1982
MBA Washington Univ in St. Louis 1990

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PHD University of MO St Louis 2014

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Professor of Cell Biology and Physiology
Professor of Molecular Microbiology
Professor of Pathology and Immunology
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MD Rush University 1984

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MD University of Massachussetts 2007

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K

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BS University of Saint Thomas 2008
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MD University of Pittsburgh 2012
BS University of California 2006

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BS University of Montana Missoula 2009
PHD Univ of Massachusetts Lowell 2016

L

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BS Huazhong University of Science 1994
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MS Chinese Academy of Sciences 1995
PHD Friedrich-Alexander Universit 2001
BS Huashong University of Science 1992

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PHD University of Chicago 1968
MD National Taiwan University 1960

M

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BS Cameron University 1994
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MD University of Miami 1980
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P

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BS Union University 2001
MD University of Tenn Memphis 2005

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PHD University of Texas Austin 1971
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BS Lamar University 1967

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PHD Univ of IL-Urbana-Champaign 2009
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MS Georgia Tech 2008
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BS Vanderbilt University 2007
MD Duke University 2011

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Professor of Radiology
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MA Washington Univ in St. Louis 1991
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PHD Wayne State University 2003
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BS Tsinghua University, China 1992
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BS Tianjin University 2005
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Courses
For course information, please visit the Radiology page (http://bulletin.wustl.edu/medicine/departments/radiology/#courses) of this Bulletin.