

Joseph P. Dugas, Ph.D.

Medical Physicist, Director of Medical Physics Residency Program

EDUCATION AND TRAINING

CAMPEP Accredited Residency, Clinical Medical Physics, 2009-2011
The University of Texas Southwestern Medical Center, Dallas, TX

Ph.D., Physics, 2003
Washington University in St. Louis, St. Louis, MO

A.M., Physics, 1999
Washington University in St. Louis, St. Louis, MO

B.S., Physics (*Magna Cum Laude*), 1997
Louisiana State University, Baton Rouge, LA

EMPLOYMENT

Director of Medical Physics Residency Program Oct. 2016 – present
Willis-Knighton Cancer Center, Shreveport, LA

Deputy Director of Medical Physics Residency Program Feb. 2016 – Oct. 2016
Willis-Knighton Cancer Center, Shreveport, LA

Adjunct Assistant Professor, Oct. 2016 – present (pending)
Louisiana Tech University, Department of Physics, Ruston, LA

Medical Physicist, Feb. 2016 – present
Willis-Knighton Cancer Center, Shreveport, LA

Adjunct Assistant Professor, Jan. 2012 – present
Louisiana State University, Department of Physics & Astronomy, Baton Rouge, LA

Deputy Medical Physics Residency Program Director, Oct. 2012 – Feb. 2016
Mary Bird Perkins Cancer Center, Baton Rouge, LA

Academic Medical Physicist, Aug. 2011 – Feb. 2016
Mary Bird Perkins Cancer Center, Baton Rouge, LA

Postdoctoral Researcher in Medical Physics, Mar. 2005 – Jun. 2009
Louisiana State University, Department of Physics & Astronomy, Baton Rouge, LA

Postdoctoral Fellow, Aug. 2004 – Feb. 2005
Northwestern University Feinberg School of Medicine, Department of Radiology, Chicago, IL

Postdoctoral Researcher, Dec. 2003 – Feb. 2005
Evanston Northwestern Healthcare Research Institute, Center for Basic MR Research, Evanston, IL

Graduate Research Assistant, May 1999 – Nov. 2003
Washington University in St. Louis, Department of Physics, St. Louis, MO

Graduate Teaching Assistant, Aug. 1997 – May 1999
Washington University in St. Louis, Department of Physics, St. Louis, MO

Undergraduate Research Assistant / Research Associate, Aug. 1992 – Aug. 1997
Louisiana State University, Department of Physics & Astronomy, Baton Rouge, LA

CERTIFICATIONS

American Board of Radiology, 2012
Therapeutic Medical Physics

PROFESSIONAL AFFILIATIONS

American Society for Radiation Oncology (ASTRO, April 2011 - present)
American College of Medical Physics (ACMP, 2009 – 2012 when absorbed by AAPM)
The American Association of Physicists in Medicine (AAPM, 2005 - present)
Society for Neuroscience (SfN, 2004 - 2005)
Phi Kappa Phi (inducted 1996)
Society of Physics Students (1994 - 1997)
Sigma Pi Sigma (1995 - present)

PUBLICATIONS

1. Diane Alvarez, Kenneth L. Matthews II, Kyungmin Ham, Marie E. Varnes, Thomas A.D. Brown, Joseph P. Dugas, and Kenneth R. Hogstrom. *Impact of IUdR on Rat 9L Glioma Cell Survival for 25-35 keV Photon-Activated Auger Electron Therapy*. 2014. *Radiat Res* 182(6):607-617.
2. T. A. D. Brown, K. R. Hogstrom, D. Alvarez, K. L. Matthews II, K. Ham, J. P. Dugas. *Dose-Response Curve of EBT, EBT2, and EBT3 Radiochromic Films to Synchrotron-Produced Monochromatic X-Ray Beams*. 2012. *Med Phys* 39(12):593-598.
3. Qinan Bao, Brian A. Hrycushko, Joseph P. Dugas, Frederick H. Hager, Timothy D. Solberg. 2012. *A Technique for Pediatric Total Skin Electron Irradiation*. 2012. *Radiation Oncology* 7(40).
4. Nazanin Majdzadeh, Sheena K. Jain, Mike C. Murphy, Joseph P. Dugas, Frederick Hager, Ramzi Abdulrahman. 2011. *Total Skin Electron Beam Radiation in a Pediatric Patient with Leukemia Cutis: A case report*. 2012. *Journal of Pediatric Hematology/Oncology* 34(7):556-558.
5. Joseph P. Dugas, Marie E. Varnes, Erno Sajo, Christopher E. Welch, Kyungmin Ham, Kenneth R. Hogstrom. 2011. *Dependence of Cell Survival on IUdR Concentration in 35 keV Photon-activated Auger Electron Radiotherapy*. *International Journal of Radiation Oncology Biology Physics* 79(1): 255-261.
6. Joseph P. Dugas, Scott D. Oves, Erno Sajo, Kenneth L. Matthews II, Kyungmin Ham, and Kenneth R. Hogstrom. 2008. *Monochromatic Beam Characterization for Auger Electron Dosimetry and Radiotherapy*. *European Journal of Radiology* 68S: S137-S141.
7. Scott D. Oves, Kenneth R. Hogstrom, Kyungmin Ham, Erno Sajo, and Joseph P. Dugas. 2008. *Dosimetry intercomparison using a 35-keV X-ray synchrotron beam*. *European Journal of Radiology* 68S: S121-S125.

8. Joseph P. Dugas, Joel R. Garbow, Dale K. Kobayashi, Mark S. Conradi. 2004. *Hyperpolarized ^3He MRI of Mouse Lung*. Magnetic Resonance in Medicine 52(6):1310-1317.
9. Joel R. Garbow, Joseph P. Dugas, Sheng-Kwei Song, Mark S. Conradi. 2004. ***A simple, robust hardware device for passive or active respiratory gating in MRI and MRS experiments.*** Concepts in Magnetic Resonance Part B: Magnetic Resonance Engineering 21B(1):40-48.
10. Joel R. Garbow, Joseph P. Dugas, Mark S. Conradi. *Respiratory Gating for MRI and MRS in Rodents*. 2003. Proceedings of the Third IEEE Symposium on BioInformatics and BioEngineering (BIBE'03), p. 126.
11. P. Deines-Jones, A. Aranas, M.L. Cherry, J. Dugas, D. Kudzia, B.S. Nilsen, K. Sengupta, C.J. Waddington, J.P. Wefel, B. Wilczynska, H. Wilczynski, B. Wosiek. 1997. *Automated track recognition and event reconstruction in nuclear emulsion*. Nuclear Instruments and Methods in Physics Research Section A - Accelerators Spectrometers Detectors and Associated Equipment 390(1-2):219-232.