



Peter Chul Park, Ph.D.

Philosophy of Care	Dr. Park is a board certified medical physicist. He has special interest and expertise in Stereotactic body radiation therapy (SBRT), Image guided radiation therapy (IGRT), High dose rate brachytherapy (HDR), and proton therapy. He has expertise in treatment of gastrointestinal cancer.
Clinical Interests	Dr. Park is a medical physicist and expert in radiation therapy procedures and protocols. His provides specialized physics consult to radiation oncologists, medical dosimetrists, and radiation therapists.
Research/Academic Interests	Dr. Park's research focuses on improving the diagnosis and treatment of liver and pancreatic cancer, especially through new methods of image processing and data-driven classification and pattern recognition in conjunction of developing novel radiation treatment planning strategies.
Title	Associate Professor
Specialty	Radiology Physics
Department	Radiation Oncology
Division	Radiation Oncology
Center/Program Affiliation	UC Davis Comprehensive Cancer Center
Address/Phone	UC Davis Comprehensive Cancer Center, 4501 X St. Suite 0140 Sacramento, CA 95817 Phone: 800-362-5566
Additional Phone	Clinic Referral Phone: 916-734-3255 Physician Referrals: 800-4-UCDAVIS (800-482-3284)
Education	Ph.D., Medical Physics, University of Texas MD Anderson Cancer Center, Houston TX 2012 B.S, Physics, UC San Diego, La Jolla CA 2008
Residency	Radiation Oncology/Medical Physics, Emory University, Atlanta GA 2013-2014
Fellowships	Radiation Physics/Postdoctoral Fellow, University of Texas, MD Anderson Cancer Center, Houston TX 2012-2013
Board Certifications	American Board of Radiology, Therapeutic Radiological Physics California State Authorized Calibration Physicist
Professional Memberships	American Association of Medical Physicist American Society for Radiation Oncology (ASTRO)



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Select Recent Publications

Cazoulat G, Elganainy D, Anderson BM, Zaid M, Park PC, Koay EJ, Brock KK. Vasculature-Driven Biomechanical Deformable Image Registration of Longitudinal Liver Cholangiocarcinoma Computed Tomographic Scans. *Adv Radiat Oncol*. 2019 Oct 17;5(2):269-278. doi:10.1016/j.adro.2019.10.002. PMID:32280827.

Li H, Zhang X, Park P, Liu W, Chang J, Liao Z, Frank S, Li Y, Poenisch F, Mohan R, Gillin M, Zhu R. Robust optimization in intensity-modulated proton therapy to account for anatomy changes in lung cancer patients. *Radiother Oncol*. 2015 Mar;114(3):367-72. doi:10.1016/j.radonc.2015.01.017. Epub 2015 Feb 20. PMID:25708992.

Park PC, Cheung JP, Zhu XR, Lee AK, Sahoo N, Tucker SL, Liu W, Li H, Mohan R, Court LE, Dong L. Statistical assessment of proton treatment plans under setup and range uncertainties. *Int J Radiat Oncol Biol Phys*. 2013 Aug 1;86(5):1007-13. doi:10.1016/j.ijrobp.2013.04.009. Epub 2013 May 18. PMID:23688812.

Liu W, Frank SJ, Li X, Li Y, Park PC, Dong L, Ronald Zhu X, Mohan R. Effectiveness of robust optimization in intensity-modulated proton therapy planning for head and neck cancers. *Med Phys*. 2013 May;40(5):051711. doi:10.1118/1.4801899. PMID:23635259.

Park PC, Zhu XR, Lee AK, Sahoo N, Melancon AD, Zhang L, Dong L. A beam-specific planning target volume (PTV) design for proton therapy to account for setup and range uncertainties. *Int J Radiat Oncol Biol Phys*. 2012 Feb 1;82(2):e329-36. doi:10.1016/j.ijrobp.2011.05.011. Epub 2011 Jun 22. PMID:21703781.

Yang M, Zhu XR, Park PC, Titt U, Mohan R, Virshup G, Clayton JE, Dong L. Comprehensive analysis of proton range uncertainties related to patient stopping-power-ratio estimation using the stoichiometric calibration. *Phys Med Biol*. 2012 Jul 7;57(13):4095-115. doi:10.1088/0031-9155/57/13/4095. Epub 2012 Jun 7. PMID:22678123.



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