



Robin Stern, Ph.D.

Clinical Interests	Dr. Stern is a medical physicist with broad clinical interest in radiation oncology treatment and treatment planning. While supporting all treatment modalities, she specializes in brachy therapy, both high-dose-rate CHDRJ and low-dose-rate CLDRJ, and intra-cranial and body stereotactic treatment using both Gamma Knife and linear accelerator systems. She is particularly interested in improving patient safety through the use of quality assurance/quality control/quality improvement tools and methodologies.
Title	Chief Clinical Physicist Professor
Specialty	Cancer , Radiation Oncology
Department	Radiation Oncology
Division	Radiation Oncology
Center/Program Affiliation	UC Davis Comprehensive Cancer Center
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Education	Ph.D., University of Michigan, Ann Arbor, Michigan, 1987 B.A., Rice University, Houston, Texas, 1981 M.S., University of Michigan, Ann Arbor, Michigan, 1984
Fellowships	Duke University, Durham, North Carolina, 1987-1989 University of Michigan, Ann Arbor, Michigan, 1989-1991
Board Certifications	American Board of Radiology, 1997
Professional Memberships	American Association of Physicists in Medicine American College of Radiology American Society of Therapeutic Radiology and Oncology San Francisco Bay Area Chapter, American Association of Physicists in Medicine
Honors and Awards	Fellow, American Association of Physicists in Medicine, 2007 Who's Who in America, 2005 Sigma Pi Sigma, 1981 Phi Beta Kappa, 1981



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Select Recent Publications

- Perks JR, Stanic S, Stern RL, Henk B, Nelson MS, Harse RD, Mathai M, Purdy JA, Valicenti RK, Siefkin AD, Chen AM. Failure Mode and Effect Analysis for Delivery of Lung Stereotactic Body Radiation Therapy. *Int J Radiat Oncol Biol Phys*. 2011 Dec 22. [Epub ahead of print]
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- Stern RL, Liu T. Dwell position inaccuracy in the Varian GammaMed HDR ring applicator. *J Appl Clin Med Phys*. 2010 Sep 7;11(4):3158.
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- Berglund SR, Rocke DM, Dai J, Schwietert CW, Santana A, Stern RL, Lehmann J, Hartmann Siantar CL, Goldberg Z. Transient genome-wide transcriptional response to low-dose ionizing radiation in vivo in humans. *70(1)*: 229-234. 2008.
- Stern RL, Perks JR, Pappas CT, Boggan JE, Chen AY. The option of linac-based radiosurgery in a Gamma Knife radiosurgery center. *Clin Neurol Neurosurg*, 110: 968-972. 2008.
- Perks JR, Lehmann J, Chen AM, Yang CC, Stern RL, Purdy JA Comparison of peripheral dose from image-guided radiation therapy (IGRT) using kV cone beam CT to intensity modulated radiation therapy (IMRT). *Radiother Oncology*, 89: 304-310. 2008.
- J. Lehmann, R.L. Stern, T.P. Daly, D.M. Rocke, C.W. Schwietert, G.E. Jones, M.L. Arnold, C. Hartmann Siantar, and Z. Goldberg. Dosimetry for quantitative analysis of the effects of low-dose ionizing radiation in radiation therapy patients. *Radiation Research*, 165(2): 240-247. 2006.
- Luo, C., Yang, C.L., Narayan, S., Stern, R.L., Perks, J., Goldberg, Z., Ryu, J., Purdy, J.A, Vijayakumar, S. Use of benchmark DVHs for the selection of the optimal technique between 3D-CRT and IMRT in prostate cancer. *International Journal of Radiation Oncology, Biology, Physics*. *International Journal of Radiation Oncology, Biology, Physics*, 66(4): 1253-1262. 2006.
- A.W. Lightstone, S.H. Benedict, F.J. Bova, T.D. Solberg, R.L. Stern. Intracranial Stereotactic Positioning Systems: Report of the American Association of Physicists in Medicine Radiation Therapy Committee Task Group No. 68. *Med Phys*, 32: 2380-2398. 2005.
- Lehman, J., R.L. Stern, T. Daly, C.L. Hartmann, Siantar, and Z. Goldberg. Radiation Phantom with Humanoid Shape and Adjustable Thickness (RPHAT). *Physics in Medicine and Biology*, 49(9): N125 - N129, 2004.



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