Julian R. Perks, Ph.D.

Clinical Interests

Dr. Perks is a physicist whose clinical interests include stereotactic radiotherapy as well as radiosurgery planning and treatment delivery. In particular, he has been focusing on the commissioning and clinical integration of a new gamma-knife system for the treatment of intra-cranial lesions. He also is working to expand the department's intensity-modulated radiotherapy (IMRT) capabilities. Dr. Perks's research activities include the comparison of linear accelerator and gamma knife-based radiosurgery procedures, optimizing imaging protocols, and the retrospective analysis of cone beam CR predictive outcome models to develop data for UC Davis. As a researcher, he does not see patients.

Title

Physicist

Specialty

Cancer, Radiation Oncology

Department

Radiation Oncology

Division

Radiation Oncology

Center/Program Affiliation

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Education

Ph.D., University of Birmingham, Birmingham UK 1996
B.Sc., University of Birmingham, Birmingham UK 1993

Select Recent Publications

Liu R, Fan M, Candas D, Qin L, Zhang X, Eldridge A, Zou JX, Zhang T, Juma S, Jin C, Li RF, Perks J, Sun LQ, Vaughan AT, Hai CX, Gius DR, Li JJ. CDK1-Mediated SIRT3 Activation Enhances Mitochondrial Function and Tumor Radioresistance. Mol Cancer Ther. 2015 Sep;14(9):2090-102.

Perks JR, Lucero S, Monjazeb AM, Li JJ. Anthropomorphic Phantoms for Confirmation of Linear Accelerator-Based Small Animal Irradiation. Cureus. 2015 Mar 5;7(3):e254.

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Daly ME, Perks JR, Chen AM. Patterns-of-care for thoracic stereotactic body radiotherapy among practicing radiation oncologists in the United States. J Thorac Oncol. 2013 Feb;8(2):202-7.

Healy E, Anderson S, Cui J, Beckett L, Chen AM, Perks J, Stern R, Mayadev J. Skin dose effects of postmastectomy chest wall radiation therapy using brass mesh as an alternative to tissue equivalent bolus. Pract Radiat Oncol. 2013 Apr-Jun;3(2):e45-53.

Chen AM, Farwell DG, Luu Q, Donald PJ, Perks J, Purdy JA. Evaluation of the planning target volume in the treatment of head and neck cancer with intensity-modulated radiotherapy: what is the appropriate expansion margin in the setting of daily image guidance? Int J Radiat Oncol Biol Phys. 2011 Nov 15;81(4):943-9.

Chen AM, Marsano J, Perks J, Farwell G, Luu Q, Donald PJ, Purdy JA. Comparison of IMRT techniques in the radiotherapeutic management of head and neck cancer: is tomotherapy 'better' than step-and-shoot IMRT? *Technol Cancer Res Treat*. 2011 Apr;10(2):171-7.

Yi BS, Perks J, Houston R, Stern R, Purdy JA, Chen AM. Changes in position and volume of lung cancer target volumes during stereotactic body radiotherapy (SBRT): is image guidance necessary? *Technol Cancer Res Treat*. 2011 Oct;10(5):495-504.

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