

## APPENDIX XIII.

### PUBLICATIONS

by members of the Medical Physics Unit : 2007 calendar year  
(names of MPU staff members are underlined, students are indicated by †)

1. M.J. Kutryk, M.A. Kuliszewski, R. Jaffe, R.O. Tio, C. Janicki, W.L. Sweet, J.D. Sparkles, B.H. Strauss, *Low-energy gamma-emitting stents inhibit intimal hyperplasia with minimal "edge effects" in a pig coronary artery model*, Cardiovasc. Revasc. Med. **8**(1), 28-37 (2007).
2. B. Reniers, F. Verhaegen, *The microdosimetry of low energy photons in radiotherapy*, Radiat. Prot. Dosim. **122**(1-4), 401-403 (2007).
3. T. Vuong, S. Devic, E.B. Podgorsak, *High dose rate endorectal brachytherapy as a neoadjuvant treatment for patients with resectable rectal cancer*, Clinical Oncology **19**, 701-705 (2007).
4. S. Appenzeller, G.B. Pike, A.E. Clark, *Magnetic resonance imaging in the evaluation of central nervous system manifestations in systematic lupus erythematosus*, Clin. Rev. Allergy Immunol. (E-pub ahead of print) (December 15, 2007).
5. T. Vuong, N. Kopek, T. Ducruet, L. Portelance, S. Faria, B. Bahoric, S. Devic, *Conformal therapy improves the therapeutic index of patients with anal canal cancer treated with combined chemotherapy and external beam radiotherapy*, Int. J. Rad. Oncology Biol. Phys. **67**, 1394-1400 (2007).
6. M.E.R. Poli, W. Parker, H.J. Patrocinio, L. Souhami, G. Shenouda, L.L. Campos, E.B. Podgorsak, *An assessment of PTV margin definitions for patients undergoing conformal 3D external beam radiation therapy for prostate cancer based on an analysis of 10,327 pretreatment daily ultrasound localizations*, Int. J. Rad. Oncology Biol. Phys. **67**, 1430-1437 (2007).
7. W. Parker, E. Filion, D. Roberge, C.R. Freeman, *Intensity modulated radiotherapy for craniospinal irradiation: Target volume considerations, dose constraints, and competing risks*, Int J Radiat Oncol Biol Phys. **69**, 251-257, (2007).
8. J-F. Carrier, M. D'Amours, F. Verhaegen, B. Reniers, A.G. Martin, E. Vigneault, L. Beaulieu, *Postimplant dosimetry using a monte carlo dose calculation engine: A new clinical standard*, Int. J. Radiat. Oncol. Biol. Phys. **68**, 1190-1198 (2007). E-pub April 2007.
9. W. Parker, M.E.R. Poli, H.J. Patrocinio, L. Souhami, G. Shenouda, E.B. Podgorsak, *In reply to Dr. Scarborough et al.*, Int J Radiat Oncol Biol Phys. **68**, 1579-80 (2007).
10. S.A. Choudhury, P. Kauler, S. Devic, *Silencing of endo-exonuclease expression sensitizes mouse B16F10 melanoma cells to DNA damaging agents*, Invest New Drugs **25**, 399-410 (2007).
11. M.D.C. Evans, S. Devic, E.B. Podgorsak, *High dose-rate brachytherapy source position quality assurance using radiochromic film*, Med. Dosim. **32**, 13-15 (2007).
12. S. Devic, N. Tomic, Z. Pang, J.P. Seuntjens, E.B. Podgorsak, C.G. Soares, *Absorption spectroscopy of EBT model GAFCHROMICTM film*, Med. Phys. **34**, 112-118 (2007).
13. A. Sarfehnia†, K. Jabbari†, J.P. Seuntjens, E.B. Podgorsak, *Experimental verification of beam quality in high-contrast imaging with orthogonal bremsstrahlung photon beams*, Med. Phys. **34**, 2896-2906 (2007).
14. E. Heath†, D.L. Collins, P.J. Keall, L. Dong, J. Seuntjens, *Quantification of accuracy of the automated nonlinear image matching and anatomical labeling (ANIMAL) nonlinear registration algorithm for 4D CT images of lung*, Med. Phys. **34**(11), 4409-4421 (2007).
15. S. Devic, T. Vuong, B. Moftah, M.D.C. Evans, E.B. Podgorsak, *Image-guided high dose rate endorectal brachytherapy*, Med. Phys. **34**, 4451-4458 (2007).

16. K. Al-Yahya†, F. Verhaegen, J.P. Seuntjens, *Design and dosimetry of a few leaf electron collimator for energy modulated electron therapy*, Med. Phys. **34**, 4782-91 (2007).
17. I.J. Chetty, B. Curran, J.E. Cygler, J.J. DeMarco, G. Ezzell, B.A. Faddegon, I. Kawrakow, P.J. Keall, H. Liu, C.M. Ma, D.W. Rogers, J. Seuntjens, D. Sheikh-Bagheri, J.V. Siebers, Report of the AAPM Task Group No. 105: *Issues associated with clinical implementation of Monte Carlo-based photon and electron external beam treatment planning*, Med. Phys. **34**(12), 4818-4853 (2007).
18. A. Sarfehnia†, K. Stewart†, J.P. Seuntjens, *An absorbed dose to water standard for HDR 192Ir brachytherapy sources based on water calorimetry: Numerical and experimental proof-of-principle*, Med. Phys. **34**(12), 4957-4961 (2007).
19. S.J. Lupien, A. Evans, C. Lord, J. Miles, M. Pruessner, G.B. Pike, *Hippocampal volume is as variable in young as in older adults: Implications for the notion of hippocampal atrophy in humans*, NeuroImage **15** (34:2), 479-485 (2007).
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23. K. Jabbari†, A. Sarfehnia†, E.B. Podgorsak, J.P. Seuntjens, *Monte Carlo feasibility study of orthogonal bremsstrahlung beams for improved radiation therapy imaging*, Phys. Med. Biol. **52**(4), 1171-1184 (2007). E-pub January 2007.
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25. K.J. Stewart†, A. Elliott, J. Seuntjens, *Development of a guarded liquid ionization chamber for clinical dosimetry*, Phys. Med. Biol. **52**(11), 3089-3104 (2007). E-pub May 2007.
26. N. Tomic, M. Gosselin, J.F. Wan, U. Saragovi, E.B. Podgorsak, M.D.C. Evans, S. Devic, *Verification of cell irradiation dose deposition using a radiochromic film*, Phys. Med. Biol. **52**, 3121-3131 (2007).
27. A. Alexander†, F. DeBlois, G. Stroian, K Al-Yahya†, E. Heath†, J.P. Seuntjens, *MMCTP: A radiotherapy research environment for Monte Carlo and patient-specific treatment planning*, Phys. Med. Biol. **52**(13), N297-N308 (2007). E-pub June 2007.
28. M. Bazalova†, F. Verhaegen, *Monte Carlo simulation of a computed tomography x-ray tube*, Phys. Med. Biol. **52**(19), 5945-5955 (2007). E-pub September 2007.
29. M. Pruessner, J.C. Pruessner, D.H. Hellhammer, G.B. Pike, S.J. Lupien, *The associations among hippocampal volume cortisol reactivity and memory performance in young healthy men*, Psychiatry Research **15** (155:1), 1-10 (2007).
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32. R.B. Richardson, H.L. Nie, D.R. Chettle, *Monte Carlo simulation of trabecular bone remodeling and absorbed dose coefficients for tritium and 14C*, **10**, 1093/rpd/ncm364 (2007).