APPENDIX XII.

PUBLICATIONS

by members of the Medical Physics Unit : 2004 calendar year
(*names of MPU staff members are underlined, students are indicated by †*)

1. S. Faria, M. Salah, M. David, L. Souhami, M. Duclos, G. Shenouda, F. DeBlois, C. Janicki, C.R. Freeman, *Biochemical failure as single abnormality in patients with prostate cancer following radical treatment with external radiotherapy: Follow-up without immediate treatment*, Int. Braz. J. Urol. **30**, 289-295 (2004).
2. K. Sultanem, H.J. Patrocinio, C. Lambert, R. Corns, R. Leblanc, W. Parker, G. Shenouda, L. Souhami, *The use of hypofractionated intensity-modulated irradiation in the treatment of glioblastoma multiforme: Preliminary results of a prospective trial*, Int. J. Radiat. Oncol. Biol. Phys. **58**, 247-252 (2004).
3. Y. Li, A. Owusu, S. Lehnert, *Treatment of intracranial rat glioma model with implant of radiosensitizer and biomodulator drug combined with external beam irradiation*, Int. J. Radiat. Oncol. Biol. Phys. **58**, 519-527 (2004).
4. T. Vuong, E. Franco, S. Lehnert, *Silverleaf nylon dressing to prevent radiation dermatitis in patients undergoing chemotherapy and external beam irradiation to the perineum*, Int. J. Radiat. Oncol. Biol. Phys. **59**, 809-814 (2004).
5. L. Souhami, W. Seiferheld, D. Brachman, E.B. Podgorsak, M. Werner-Wasik, R. Lustig, C.J. Schultz, W. Sause, P. Okunieff, J. Buckner, L. Zamorano, M.P. Mehta, W.J. Curran Jr., *Randomized comparison of stereotactic radiosurgery followed by conventional radiotherapy with carmustine to conventional radiotherapy with carmustine for patients with glioblastoma multiforme: Report of Radiation Therapy Oncology Group 93-05 Protocol*, Int. J. Rad. Onc. Biol. Phys. **60**, 853-860 (2004).
6. C. Janicki, J.P. Seuntjens, *Accurate determination of dose-point kernel functions close to the origin using Monte Carlo simulations*, Med. Phys. **31**, 814-818 (2004).
7. E.B. Podgorsak, D.W.O. Rogers, W.R. Hendee, *Physicists are better educated for a career in medical physics if they graduate from a specialized medical physics graduate program rather than from a more traditional physics graduate program*, Med. Phys. **31**, 955-957 (2004).
8. S. Devic, G. Hegyi, T. Vuong, T. Muanza, E.B. Podgorsak, *Comparative skin dose measurement in the treatment of anal canal cancer: Conventional versus conformal therapy*, Med. Phys. **31,** 1316-1321 (2004).
9. G. Stroian†, T. Falco, J.P. Seuntjens, *Elimination of ghost markers during dual sensor-based infrared tracking of multiple individual reflective markers*, Med. Phys. **31**, 2008-2019 (2004).
10. S. Devic, J.P. Seuntjens, G. Hegyi, E.B. Podgorsak, C.G. Soares, A.S Kirov, I. Ali, J.F. Williamson, A. Elizondo, *Dosimetric properties of improved GafChromic films for seven different digitizers*, Med. Phys. **31**, 2392-2401 (2004).
11. H. Bouchard, J.P. Seuntjens, *Ionization chamber-based reference dosimetry of intensity modulated radiation beams*, Med. Phys. **31**, 2453-2464 (2004).
12. E. Heath†, J.P. Seuntjens, D. Sheikh-Bagheri, *Dosimetric evaluation of the first commercial IMRT Monte Carlo treatment planning system at 6 MV*, Med. Phys. **31**, 2771-2779 (2004).
13. W. Abdel-Rahman, F. DeBlois, F. Verhaegen, J.P. Seuntjens, E.B. Podgorsak, *Validation of Monte Carlo calculated surface dose for megavoltage photon beams*, Med. Phys. **32**, 286-298 (2004).
14. A.I. Belenkov, G. Shenouda, E. Rizhevskaya, D. Cournoyer, J.P. Belzile, L. Souhami, S. Devic,

T.Y. Chow, *Erythropoietin induces cancer cell resistance to ionizing radiation and to cisplatin*, Mol. Cancer Ther. **12**, 1525-1532 (2004).

15. B. Reniers, F. Verhaegen, S. Vynckier, *The radial function of low energy brachytherapy seeds in different solid phantoms: Comparison between calculations with the EGSnrc and MCNP4C Monte Carlo codes and measurements*, Phys. Med. Biol. **49**, 1569-1582 (2004).
16. B. Reniers, S. Vynckier, F. Verhaegen, *Theoretical analysis of microdosimetric spectra and cluster formation for Pd-103 and I-125 emitters*, Phys. Med. Biol. **49**, 3781-95 (2004).
17. H. Palmans, R. Thomas, M. Simon, S. Duane, A. Kacperek, A. DuSautoy, F. Verhaegen, *A small-body portable graphite calorimeter for dosimetry in low-energy clinical proton beams*, Phys. Med. Biol. **49**, 3737-3749 (2004).
18. J. Medin, C.K. Ross, G. Stucki, N.V. Klassen, J.P. Seuntjens, *Commissioning of an NRC-type sealed water calorimeter at the METAS using cobalt-60 gamma rays*, Phys. Med. Biol. **49**, 4073–4086 (2004).
19. M. Fragoso, P. Love, F. Verhaegen, C. Nalder, M. Leach, S. Webb, *Calculations and measurement of the dose distribution delivered by low dose rate Cs-137 sources in intracavitary brachytherapy: Comparison of Monte Carlo, treatment planning and polymer gel*, Phys. Med. Biol. **49**, 5459-74 (2004).
20. M. Berrada, Z. Yang, S. Lehnert, *Tumor control by combined interstitial radio-/chemotherapy*, Radiat. Res. **162**, 64-70 (2004).
21. F. Verhaegen, B. Reniers, *Microdosimetric analysis of various mammography spectra: Lineal energy distributions and ionisation cluster analysis*, Rad. Res. **162**, 592-599 (2004).
22. F. Buffa, F. Verhaegen, *Backscatter and dose perturbations for low to medium energy electron point sources at the interface between materials with different atomic numbers*, Rad. Res. **162**, 693-701 (2004).
23. J. Barrett, G.B. Pike**,** T. Paus, *The role of the anterior cingulate cortex in pitch variation during sad affect*, Eur. J. Neurosci. **19**(2), 458-464 (2004).
24. J.G. Sled, I. Levesque†, C. Santos, S.J. Francis, S. Narayanan, S.D. Brass, D.L. Arnold, G.B. Pike, *Regional variations in normal brain shown by quantitative magnetization transfer imaging*, Magn. Reson. Med. **51**, 299-303 (2004).
25. A.P. Bagshaw, Y. Aghakhani, C-G. Bénar, E. Kobayashi, C. Hawco, F. Dubeau, G.B. Pike, J. Gotman, *EEG-fMRI of focal epileptic spikes: Analysis with multiple haemodynamic functions and comparison with Gadolinium-enhanced MR angiograms*, Human Brain Mapping **22**(3), 179-192 (2004).
26. B. Stefanovic, J. Warnking, G.B. Pike, Hemodynamic and metabolic responses to neuronal inhibition, NeuroImage, 771-778 (2004).
27. T.N. Townsend, N. Bernasconi, G.B. Pike, A. Bernasconi, Quantitative analysis of temporal lobe white matter T2 relaxation time in temporal lobe epilepsy, NeuroImage **23**, 318-324 (2004).
28. B. Stefanovic, G.B. Pike, *Human whole-blood relaxometry at 1.5T: Assessment of diffusioin and exchange models*, Magn. Reson. Med. B(4), 716-723 (2004).
29. J. Warnking, G.B. Pike, *Bandwidth-modulated adiabatic RF pulses for uniform selective saturation and inversion*, Magn. Reson. Med. **52**(5), 1190-1199 (2004).
30. C. Boudreau†, E. Heath†, W. Parker, O. Ballivy, J.P. Seuntjens, *La plannification des traitements de RCMI pour les cancers de la tete et du cou avec un systeme commercial Monte Carlo*, 72e Proceedings of the Congrès de l'Association francophone pour le savoir (l'Acfas), Colloque de physique médicale, Universite du Québec à Montréal, Montréal, Québec, May 13-17, 2004.
31. N. Tomic†, S. St-James†, C.J. Thompson, *Investigation of the PET block detectors*, Proceedings of the IEEE Nuclear Science Symposium and Medical Imaging Conference, Rome, Italy, M6-147 October 19-25, 2004.
32. S. Sirois, M.D.C. Evans, E. Roussin, C. Freeman, *An analysis of lung attenuator displacement for photon total body irradiation*, Proceedings of the 23rd European Society of Therapeutic Radiology, Amsterdam, Netherlands, October 25-28, 2004.