

APPENDIX XV.

CONFERENCE & SEMINAR PRESENTATIONS

by members of the Medical Physics Unit : 2009 calendar year

(presenter is indicated by an asterisk *)

(the names of staff members of the MPU are underlined, students are indicated by †)

1. G. Stroian, *Local correlation between radiation dose and post radiotherapy complications in lung cancer patients*, Radiation oncology retreat, Jewish General Hospital, Montréal, Québec, February 2009.
2. G. Stroian, *Respiratory gating*, Jewish General Hospital, Montréal, Québec, February 2009.
3. N. Tomic,* J. F. Wan, U. Saragovi, S. Devic, Output Calibration of Radiobiological Experiments Using radiochromic Film, 4th International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology, Geneva, Switzerland, March 11-13, 2009 (abstract #: 222).
4. E.B. Podgorsak, *Teaching of medical physics in Canada and Quebec*, Annual meeting of the Association québécoise des physiciens médicaux cliniques (AQPMC), Québec, Québec, April 17-18, 2009.
5. E.B. Podgorsak, *Education, training and certification of medical physicists in Canada*, 26th annual meeting of the American College of Medical Physics (ACMP), Virginia Beach, Virginia, May 02-05, 2009.
6. C. Janicki " Post-Modern Physics and the New Consciousness: How Quantum Mechanics is used to explain Mind-Body Healing, Homeopathy and other Miracles" Health Fusion 2009, The Canadian Association of Naturopathic Doctors, Montreal, Quebec, Canada, June 5-7, 2009.
7. K. Asiev†, *Monte Carlo treatment planning*. Jewish General Hospital Radiation Oncology Department presentation, June 2009.
8. N. Tomic, J. Seuntjens, F. DeBlois, S. Devic, *2D CBCT dosimetry using XR-QA model GAFCHROMIC film*, 55th Annual Meeting of the CCPM [Poster-Wed Eve-21], Victoria, BC, July 21-24, 2009,
9. A. Sarfehnia†, J. Seuntjens, *Realizing absorbed dose directly for HDR 192Ir brachytherapy: Water Calorimetry and comparison to ion chamber, Gafchromic film, and TG-43*, Proceedings of the 55th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Victoria, British Columbia; July 22-24, 2009; pp. 73.
10. S. Devic, N. Tomic, F. DeBlois, E.P. Reynard†, *Commissioning of brachytherapy TPS using EBT model GafChromic Film*, Proceedings of the 55th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP) Annual Scientific Meeting, July 22-24, 2009.
11. S. Devic, N. Tomic, F. DeBlois, *Brachytherapy TPS QA Using EBT Model GafChromic Film*, 51st Annual Meeting of the AAPM, Anaheim, California, July 26-30, 2009.
12. N. Tomic, J. Seuntjens, F. DeBlois, S. Devic, *Reference dosimetry during CBCT acquisition using radiochromic film*, 51st Annual Meeting of the AAPM, Anaheim, California, July 26-30, 2009.
13. W. Abdel-Rahman, L. Liang, I AlDahlawi†, J. Seuntjens, *Practical aspects of commissioning and calibration of clinical orthovoltage units*, 51st Annual Meeting of the AAPM, Anaheim, California, July 26-30, 2009.
14. J. Thebaut*, F. DeBlois, J. Seuntjens, *Measurement driven, electron beam modeling and commissioning for Monte Carlo treatment planning system with improved accuracy*, General Poster Presentation, AAPM 51st annual meeting, Anaheim, California, July 27, 2009.
15. N. Tomic "Cone beam computed tomography in radiation therapy", Montreal General Hospital, Radiation Oncology Monday Morning Rounds, Sept.21, 2009, Montreal, Quebec, Canada.
16. Appenzeller S, **Pike GB**, Leonard G, Veilleux M, Clarke AE. *Prevalence and types of cognitive impairment in young women with systemic lupus erythematosus (SLE)*. American College of Rheumatology, Philadelphia, October 17-21, 2009
17. Appenzeller S, **Pike GB**, Leonard G, Veilleux M, Clarke AE. *Thalamic volumes predict cognitive impairment evaluated by speed processing tasks in systemic lupus erythematosus*. American College of Rheumatology, Philadelphia, October 17-21, 2009.

18. C. Janicki "La radioprotection en médecine vétérinaire au Québec" 68e congrès annuel, Ordre des médecins vétérinaires du Québec, Saint- Hyacinthe, 12 au 14 novembre 2009.
19. G. Stroian*, S. Devic, T. Niazi, K. Sultanem, B. Bahoric, F. Deblois, *L'effet dosimétrique de la quantité de matériel de rétrodiffusion pour la curiethérapie à haut débit pour les traitements superficiels*, AQPMC workshop, Montréal, Québec, December 2009.
20. A. Alexander†, F. DeBlois, J. Seuntjens, *Energy modulated electron therapy using few leaf collimator: Plan optimization*, Med. Phys. **36**, 2554 [SU-FF-T-149] (2009).
21. J Thebaut†, F. DeBlois, A. Alexander†, J. Seuntjens, *Measurements driven, electron beam modeling and commissioning for Monte Carlo treatment planning with improved accuracy*, Med. Phys. **36**, 2621 [SU-FF-T-432] (2009).
22. E. Chung†, H. Bouchard, J Sutherland, J. Seuntjens, *Advanced techniques to determine plan-class specific reference field correction factors for accurate dosimetry of nonstandard beams*, Med. Phys. **36**, 2731 [TU-D-BRB-02] (2009).
23. J. Seuntjens, J Gibbons, I Das, *New dosimetry measurements: New developments*, Med. Phys. **36**, 2752 [WE-A-211A-01] (2009).
24. A. Sarfehnia, J. Seuntjens, *Towards an absorbed dose-based calibration for Ir-192 brachytherapy dosimetry-development of a primary standard water calorimeter*, Med. Phys. **36**, 2810 [TH-D-BRB-04] (2009).
25. Verhaeghe J, Gravel P, Mio R, Fukasawa R, Rosa-Neto P, Soucy J-P, Thompson CJ and Reader AJ "Motion- compensated fully 4D PET reconstruction using PET data supersets" (2009) IEEE Nuclear Science Symposium Conference Record, art. No. 5401590, pp. 3000-3004. (Oral presentation, Orlando 2009)
26. Verhaeghe J and Reader AJ "PET projection data supersets for reconstruction with acquisition motion" (2009) IEEE Nuclear Science Symposium Conference Record, art. No. 5401586, pp. 3005-3011. (Oral presentation, Orlando 2009)
27. Gravel P, Verhaeghe J and Reader AJ "Impact of Fully 4D Reconstruction on Kinetic Parameter Estimates" (2009) IEEE Nuclear Science Symposium Conference Record, art. No. 5401812, pp. 3546-3549 (Poster presentation, Orlando 2009)
28. †Levesque I, Pike GB. *Characterizing white matter pathology with quantitative magnetization transfer imaging: insight from a four-pool model*. Proceedings of the 17th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, p. 182, April 18-24, 2009.
29. Caramanos Z, Leppert I, Narayanan S, Pike GB, Arnold DL. *MRI evidence that gadolinium-enhancing lesions seen twelve weeks after commencing rituximab treatment are associated with lower blood-brain-barrier disruption than those seen prior to treatment in patients with relapsing-remitting multiple sclerosis*. 17th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, multimedia E-Poster, Honolulu, Hawaii, April 18-24, 2009.
30. †Cohalan Claire, Chen JJ, Pike GB. *Neuronal activity-induced cerebral blood volume changes in humans: measurements with VASO and VERVE*. 17th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, April 18-24, 2009.
31. Chen JJ, Pike GB. *Does global cerebral oxygen metabolism change during hypocapnia and hypercapnia in awake humans?* 17th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, April 18-24, 2009.
32. Caramanos Z, Leppert I, Narayanan S, Pike GB, Arnold DL. *MRI evidence for decreased blood-brain-barrier disruption in the cerebral lesions of patients with multiple sclerosis following treatment with rituximab*. 4th Annual CIHR Neuroinflammation Symposium, May 22, 2009.
33. Chen JJ, Pike GB. *BOLD-specific flow-volume relationship during hypercapnia and hypocapnia in humans*. 17th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, April 18-24, 2009.
34. Affleck W, Deslauriers C, Palmour N, Doyon J, Pike GB, Kimmelman J, Racine E. *Informed Consent for Functional Neuroimaging Research: Review of Canadian Practices*. Canadian Bioethics Annual Meeting, Hamilton, June 11-14, 2009.
35. †Chen JJ, Pike GB. *Evidence of CMRo2 invariability during end-tidal CO2 manipulations in humans*. 15th Annual Meeting of the Organization for Human Brain Mapping, San Francisco, June 18-23, 2009.
36. †Chen JJ, Pike GB. *Venous CBF-CBV relationship during end-tidal CO2 manipulations in humans and its significance for BOLD fMRI*. 15th Annual Meeting of the Organization for Human Brain Mapping, San Francisco, June 18-23, 2009.

37. Lotfipour S, Ferguson E, Leonard G, Perron M, **Pike GB**, Richer L, Séguin JR, Toro R, Veillette S, Pausova Z, Paus T. *Orbitofrontal Cortex and Drug Use during Adolescence: Role of Prenatal Exposure to Maternal Smoking and BDNF Genotype*. 15th Annual Meeting of the Organization for Human Brain Mapping, San Francisco, June 18-23, 2009.
38. Fonov VS, Leppert IR, **Pike GB**, Collins DL. *Voxel-wise T2 Relaxometry of Normal Pediatric Brain Development*. 15th Annual Meeting of the Organization for Human Brain Mapping, San Francisco, June 18-23, 2009.
39. Caramanos Z, Leppert I, Narayanan S, **Pike GB**, Arnold DL. *Semi-quantitative magnetic-resonance-imaging evidence that rituximab decreases blood-brain-barrier disruption in lesions that form on treatment in patients with relapsing-remitting MS*. 25th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS), Düsseldorf, Germany, September 9-12, 2009, Multiple Sclerosis, 15(suppl.9), S102.
40. Deslauriers C, Bell E, Palmour N, Doyon J, **Pike GB**, Racine E. *Perspectives of Researchers on Ethics Review of Neuroimaging Research in Canada*. Brain Matters: New Directions in Neuroethics International Conference, Halifax, NS, September 24-26, 2009.
41. Klepousniotou E, **Pike GB**, Pell MD. *A neuroimaging investigation of anger and fear in speech prosody*. 1st Neurobiology of Language Conference, Chicago, IL, October 15-16, 2009.
42. Klepousniotou E, **Pike GB**, Pell MD. *Anger and fear in speech prosody: An fMRI investigation*. Neuroscience 2009, Chicago, IL, October 17-21, 2009.
43. Appenzeller S, **Pike GB**, Leonard G, Veilleux M, Clarke AE. *Prevalence and types of cognitive impairment in young women with systemic lupus erythematosus (SLE)*. American College of Rheumatology, Philadelphia, October 17-21, 2009.
44. Appenzeller S, **Pike GB**, Leonard G, Veilleux M, Clarke AE. *Thalamic volumes predict cognitive impairment evaluated by speed processing tasks in systemic lupus erythematosus*. American College of Rheumatology, Philadelphia, October 17-21, 2009.

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1. H. Mohammed,* S. Aldelaijan, N. Tomic, J. Seuntjens, F. De Blois, S. Faria and S. Devic, “Definition of Uptake Volume Histograms for NSCLC Using FDG PET-CT Data,” International Conference on Radiation Medicine: Clinical Applications and Innovative Approaches, KFSH&RC, Riyadh, Saudi Arabia, March 1-4, 2010.
 2. N. Tomic,* T. Vuong, T. Niazi, L. Lihang, F. DeBlois and S. Devic, “Treatment Shifts and Doses Measurements During daily CBCT Based IGRT,” International Conference on Radiation Medicine: Clinical Applications and Innovative Approaches, KFSH&RC, Riyadh, Saudi Arabia, March 1-4, 2010.
 3. A. Sarfehnia, B. Clasié, E. Chung, HM Lu, J. Flanz, E. Cascio, M. Engelsman, H. Paganetti, J. Seuntjens (2010) *A Water Calorimetry-Based Dosimetry Standard for Direct Measurement of Absolute Absorbed Dose in Scanning Proton Beam Delivery*, 56th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Ottawa, Ontario, June 15 – 19 [Poster–Thur Eve–64].
 4. H. Patrocínio, M. Evans, R. Roo, E. Soisson, I. AlDahlawi, J. Seuntjens (2010) *Use of a Micro Liquid Ionization Chamber for Commissioning of Radiosurgery Beams*, 56th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Ottawa, Ontario, June 15 – 19 [Poster–Thur Eve–57].
 5. S. Lee, G. Stroian, J. Seuntjens *Image-Based Scoring of Radiation Injury in Lung: Analysis of Sources of Uncertainties*, 56th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Ottawa, Ontario, June 15 – 19 [WE-C-204B-04] (2010).

6. A. Alexander, E. Soisson, D. DeBlois, J. Seuntjens (2010) *Dynamic Aperture Optimization in MERT Using Direct Aperture Optimization*, 56th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Ottawa, Ontario, June 15 – 19 [Poster–Thur Eve–01].
7. E Chung, E Soisson, H Bouchard, and J Seuntjens, Sci-Fri PM: *Delivery — 03: Application of Advanced Dosimetry Techniques to Nonstandard Field Deliveries*, 56th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Ottawa, Ontario, June 15 – 19 [Sci-Fri PM] (2010).
8. S. Aldelaijan,* H. Mohammed, N. Tomic, J. Seuntjens, F. DeBlois, L. Liang, and S. Devic, “Impact of water immersion on dose measurement accuracy for the EBT-2 model radiochromic film,” ESTRO 29, September 12-16, 2010, Barcelona, Spain.
9. H Bouchard, I Kawrakow, J Carrier, F Lacroix, E Chung, and J Seuntjens *Improving Reference Dosimetry of Nonstandard Beams*, Med. Phys. **37**, 3454 [TH-C-BRB-08] (2010).
10. E. Chung, E. Soisson, H. Bouchard, J. Seuntjens *Advanced Dosimetry Techniques for Accurate Dose Measurement of Small and Nonstandard Fields Improving Reference Dosimetry of Nonstandard Beams*, Med. Phys. **37**, 3454 [TH-C-BRB-06] doi:10.1118/1.3469490 (2010).
11. T. Connell, J. Seuntjens, M Evans *Experimental Feasibility Study on the Use of Scattering Foil Free Beams for Energy Modulated Electron Therapy*, Med. Phys. **37**, 3436 [WE-E-BRA-03] doi:10.1118/1.3469425 (2010).
12. M. Serban, J. Seuntjens, E. Roussin, J. Tremblay, M. Chevrier, N. Khaouam, W. Wierzbicki, *Computer Aided Design and Monte Carlo Validation of a Patient-Specific Co-60 TBI Treatment Unit*, Med. Phys. **37**, 3353 [MO-E-BRA-02] http://online.medphys.org/mphy6/v37/i6/p3353_s1 (2010).
13. S. Aldelaijan, H. Muhammed, N. Tomic, J. Seuntjens, F. DeBlois, L. Liang, S. Devic *Impact of Post-Irradiation Time on the Accuracy of Dose Measurements for EBT-2 Model GAFCHROMIC™ Film*, Med. Phys. **37**, 3265 [SU-GG-T-346] (2010).
14. E. Chung, J. Seuntjens *Comparison of Characteristics of Two Liquid-Filled Ionization Chambers*, Med. Phys. **37**, 3265 [SU-GG-T-344] (2010).
15. N. Tomic, T. Vuong, T. Niazi, B. Bahoric, L. Liang, F. DeBlois, J. Seuntjens, S. Devic *Evaluation of Treatment Shifts for Prostate and Rectum Patients Undergoing CBCT Guided IGRT Using KV CBCT*, Med. Phys. **37**, 3159 [SU-GG-J-63] (2010).
16. A. Sarfehnia, B. Clasio, E. Chung, H. Lu, J. Flanz, E. Cascio, M. Engelsman, H. Paganetti, J. Seuntjens, *Direct Measurement of Absolute Absorbed Dose in scanning Proton Beams Based on Water Calorimetry*, Med. Phys. **37**, 3095 [SU-EE-A2-01] (2010).
17. D.M. Gilles, G. Jarry, S. Devic, J. Seuntjens, P. Mondalek, F. DeBlois, N. Tomic *Comparison of Dose Deposition from KV X-Rays during CBCT Scans between Two Commercially Available on-Line Imaging Systems*, Med. Phys. **37**, 3092 [SU-DD-A4-04] (2010).
18. S. Lee, G. Stroian, I. El Naqa, J. Seuntjens *Image-Based Scoring of Radiation Injury in Lung for Dose-Effect Correlations: Analysis of Sources of Uncertainties*, Med. Phys. **37**, 3423 [WE-C-204B-04] (2010).
19. L. Schubert, E. Soisson, D. Westerly, R. Tolakanahalli, W. Tome *Effects of Target replacement On Helical MVCT Images for Use in Adaptive Radiotherapy*, Med. Phys. **37**, 3191 [SU-GG-T-34] (2010).
20. Eunah Chung, Emilie Soisson, Hugo Bouchard, Jan Seuntjens *Advanced dosimetry techniques for accurate verification of nonstandard beams*, Proceedings of IAEA International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (2010).
21. Sarfehnia A, Stewart K, Ross C, McEwen M, Seuntjens J, *Primary water calorimetry for clinical electron beams, scanned proton beams and 192Ir brachytherapy*, Proceedings of IAEA International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (2010).
22. Mark CI, Slessarev M, Ito S, Han J, Fisher JA, **Pike GB**. *Hyperoxic (HO) versus hypercapnic (HC) BOLD calibration under precise control of end-tidal carbon dioxide and oxygen*. Joint Annual Meeting ISMRM-ESMRM, Stockholm, Sweden, May 1-7, 2010.
23. †Levesque IR, Sled JG, **Pike GB**. *A simple iterative reduction method for optimization of quantitative magnetization transfer imaging*. Joint Annual Meeting ISMRM-ESMRM, Stockholm, Sweden, May 1-7, 2010.
24. Campbell J, Leppert IR, Frey S, Petrides M, **Pike GB**. *Diffusion MRI and anatomical tracer tractography of association pathways in the same brain*. Joint Annual Meeting ISMRM-ESMRM, Stockholm, Sweden, May 1-7, 2010.

25. Tardif CL, Richardson JB, Lepage C, Collins DL, Evans AC, **Pike GB**. *Profile-based cortical parcellation for detection of cortical multiple sclerosis lesions*. Joint Annual Meeting ISMRM-ESMRM, Stockholm, Sweden, May 1-7, 2010.
26. †Jelescu I, Leppert IR, Narayanan S, Arnold DL, **Pike GB**. *Effects of temporal resolution on blood-brain barrier permeability measurement with Dynamic Contrast Enhanced MRI in multiple sclerosis enhancing lesions*. Joint Annual Meeting ISMRM-ESMRM, Stockholm, Sweden, May 1-7, 2010.
27. Mark CI, Fisher J, **Pike GB**. *Hyperoxic versus Hypercapnic calibration (m)-values under precise control of end-tidal CO₂ and O₂*. 16th Annual Meeting of OHBM (Organization for Human Brain Mapping), Barcelona, Spain, June 6-10, 2010.
28. Mark CI, **Pike GB**. *Improved Hyperoxic and Hypercapnic Calibration for fMRI Study of Neurovascular-Metabolism Coupling*. 16th Annual Meeting of OHBM (Organization for Human Brain Mapping), Barcelona, Spain, June 6-10, 2010.
29. Madjar C, Gauthier CJ, **Pike GB**, Monchi O, Doyon J, Hoge RD. *Effect of Scanner Upgrade on an Arterial Spin Labeling (ASL) Longitudinal Study*. 16th Annual Meeting of OHBM (Organization for Human Brain Mapping), Barcelona, Spain, June 6-10, 2010.
30. Voss P, **Pike GB**, Zatorre R. *Grey Matter concentration and myelin content in the occipital cortex of blind individuals predict performance in auditory and tactile tasks*. Society for Neuroscience Annual Meeting, San Diego, CA, November 13-17, 2010.