

## APPENDIX IX.

### PUBLICATIONS

by members of the Medical Physics Unit : 2015 calendar year (x 84)  
(names of MPU staff members are underlined, students are indicated by †)

1. M. Boccardi, M. Bocchetta, F.C. Morency, D.L. Collins, M. Nishikawa, R. Ganzola, M.J. Grothe, D. Wolf, A. Redolfi, M. Pievani, L. Antelmi, A. Fellgiebel, H. Matsuda, S. Teipel, S. Duchesne, C.R. Jack, G.B. Frisoni, *Training labels for hippocampal segmentation based on the EADC-ADNI harmonized hippocampal protocol*, *Alzheimer's & Dementia* **11**(2), 175-183 (2015).
2. L. French, C. Gray, G. Leonard, M. Perron, G.B. Pike et al, *Early cannabis use, polygenic risk score for schizophrenia and brain maturation in adolescence*, *J. Amer. Med. Assoc.-Psychiatry* **72**(10), 1002-11 (2015).
3. M.A. Hobson, S.D. Davis, Comparison between an in-house 1D profile correction method and a 2D correction provided in *Varian's PDPC package for improving the accuracy of portal dosimetry images*, *J. Appl. Clin. Med. Phys.* **16**, 43-50 (2015).
4. P. Watson†, E. Mainegra-Hing, N. Tomic, J. Seuntjens, *Implementation of an efficient Monte Carlo calculation for CBCT scatter correction: phantom study*, *J. Appl. Clin. Med. Phys.* **16**(4), 216-227 (2015).
5. A. Toltz†, N. Shin†, E. Mitrou†, C. Laude, C.R. Freeman, J. Seuntjens, W. Parker, D. Roberge, *Late radiation toxicity in Hodgkin lymphoma patients: Proton therapy's potential*, *J. Appl. Clin. Med. Phys.* **16**(5), 5386 (2015).
6. O.M. Maria†, A.M. Maria, N. Ybarra, K. Jeyaseelan, S. Lee†, J. Perez†, M.Y. Shalaby, S. Lehnert, S. Faria, M. Serban, J. Seuntjens, I. El Naqa, *Mesenchymal stem cells adopt lung cell phenotype in normal and radiation-induced lung injury conditions*, *Appl. Immunohist. Mol. Morphol.* (July 2015, e-pub ahead of print).
7. S. Asgharizadeh†, H. Bekerat, A. Syme, S. Aldelaijan, F. DeBlois, T. Vuong, M. Evans, J. Seuntjens, S. Devic, *Radiochromic film-based quality assurance for CT-based high-dose-rate brachytherapy*, *Brachy.* **14**(4), 578-85 (2015).
8. K. Marečková, M.M. Chakravarty, C. Lawrence, G. Leonard, D. Perusse, M. Perron, G.B. Pike, L. Richer, S. Veillette, Z. Pausova, T. Paus, *Identifying craniofacial features associated with prenatal exposure to androgens and testing their relationship with brain development*, *Brain Struct. Funct.* **220**(6), 3233-44 (2015).
9. K. Weier, B. Banwell, A. Cerasa, D.L. Collins, A. Dogonowski, H. Lassmann, A. Quattrone, M.A. Sahraian, H.R. Siebner, T. Sprenger, *The role of the cerebellum in multiple sclerosis*, *Cerebellum* **14**(3), 364-74 (2015).
10. Y. Xiao, V.S. Fonov, S. Beriault, F. Al Soubaie, M.M. Chakravarty, A.F. Sadikot, G.B. Pike, D.L. Collins, *Multi-contrast unbiased MRI atlas of a Parkinson's disease population*, *Int. J. Comput. Assist. Radiol. Surg.* **10**(3), 329-41 (2015).
11. H. Rivaz, D.L. Collins, *Deformable registration of pre-operative MR, pre-resection ultrasound and post-resection ultrasound: Comparing three approaches*, *Int. J. Comp. Assist. Radiol. Surg.* **10**(7), 1017-28 (2015).
12. Y. Xiao, V.S. Fonov, S. Beriault, I. Gerard, A.F. Sadikot, G.B. Pike, D.L. Collins, *Patch-based label fusion segmentation of brainstem structures with dual-contrast MRI for Parkinson's disease*, *Int. J. Comput. Assist. Radiol. Surg.* **10**(7), 1029-41 (2015).
13. I. Gerard, D.L. Collins, *An analysis of tracking error in image guided neurosurgery*, *Int. J. Compu. Assist. Radiol. Surg.* **10**(10), 1579-88 (2015).
14. R. Zemann, S. Beriault, M.M. Marinho, K. Mok, J.A. Hall, N. Guizard, C. Haegelen, A. Olivier, G.B. Pike, D.L. Collins, *Improving recorded volume in mesial temporal lobe by optimizing stereotactic intracranial electrode implantation planning*, *Int. J. Comput. Assist. Radiol. Surg.* **10**(10), 1599-615 (2015).
15. M. Kersten-Oertel, I. Gerard, S. Drouin, K. Mok, D. Sirhan, D. Sinclair, D.L. Collins, *Augmented reality in neurovascular surgery: Feasibility and first uses in the operating room*, *Int. J. Comput. Assist. Radiol. Surg.* **10**(11), 1823-36 (2015).

16. T. Vuong, S. Devic, *High-dose-rate pre-operative endorectal brachytherapy for patients with rectal cancer*, J. Contemp. Brachy. **7**(2), 183-8 (2015). doi: 10.5114/jcb.2015.51402. Epub 2015 May 6. Review.
17. A. Rabinovich, L. Bernard, A.V. Ramanakumar, G. Strojian, W.H. Gotlieb, S. Lau, B. Bahoric, *Para-aortic and pelvic extended-field radiotherapy for advanced-stage uterine cancer: Dosimetric and toxicity comparison between the four-field box and intensity-modulated techniques*, Curr. Oncol. **22**(6), 405-411 (2015).
18. N. Stikov, J.S. Campbell, T. Stroh, M. Lavelée, S. Frey, J. Novek, S. Nuara, M.K. Ho, B.J. Bedell, R.F. Dougherty, I.R. Leppert, M. Boudreau, S. Narayanan, T. Duval, J. Cohen-Ada, P.A. Picard, A. Gasecka, D. Côté, G.B. Pike, *Quantitative analysis of the myelin g-ratio from electron microscopy images of the macaque corpus callosum*, Data Brief **17**(4), 368-73 (2015).
19. T. Paus, Z. Pausova, M. Abrahamowicz, D. Gaudet, G. Leonard, G.B. Pike, L. Richer, *Saguenay youth study: A multi-generational approach to studying virtual trajectories of the brain and cardio-metabolic health*, Dev. Cogn. Neurosci. **11**, 129-44 (2015).
20. J.R. Pruett, Jr., S. Kandala, S. Hoertel, A.Z. Snyder, J.T. Elison, T. Nishino, E. Feczko, N.U.F. Dosenbach, B. Nardos, J.D. Power, B. Adeyemo, K.N. Botteron, R.C. McKinstry, A.C. Evans, H.C. Hazlett, S.R. Dager, S. Paterson, R.T. Schultz, D.L. Collins, V.S. Fonov, M. Styner, G. Gerig, S. Da, P. Kostopoulos, J.N. Constantino, A.M. Estes, The IBIS Network, S.E. Petersen, B.L. Schlaggar, J. Piven, *Accurate age classification of 6 and 12 month-old infants based on resting-state functional connectivity magnetic resonance imaging data*, Dev. Cogn. Neurosci. **12C**, 123-133 (2015).
21. Y. Zeighami, M. Ulla, Y. Iturria-Medina, M. Dadar, Y. Zhang, K.M. Larcher, V. Fonov, A.C. Evans, D.L. Collins, A. Dagher, *Network structure of brain atrophy in de novo Parkinson's disease*, Elife **4**, e08440 (2015).
22. B. Nitzsche, S. Frey, D.L. Collins, J. Seeger, D. Lobsien, A. Dreyer, H. Kirsten, M.H. Stoffel, V.S. Fonov, J. Boltze, *A stereotaxic, population-averaged T1w ovine brain atlas including cerebral morphology and tissue volumes*, Front. Neuro. **9**, 69 (2015).
23. M.M. Chakravarty, J. Rapoport, J. Giedd, A. Raznahan, P. Shaw, D.L. Collins, J. Lerch, N. Gogtay, *Striatal shape abnormalities as novel neurodevelopmental endophenotypes in schizophrenia: A longitudinal study*, Hum. Br. Mapp. **36**(4), 1458-69 (2015).
24. P. Coupé, V.S. Fonov, C. Bernard, A. Zandifar, S.F. Eskildsen, C. Helmer, J.V. Manjón, H. Amieva, J.F. Dartigues, M. Allard, G. Catheline, D.L. Collins, *Detection of Alzheimer's disease signature in MR images seven years before conversion to dementia: Toward an early individual prognosis*, Hum. Br. Mapp. **36**(12), 4758-70 (2015).
25. C.A. Beers, R.J. Williams, I. Gaxiola-Valdez, D.J. Pittman, A.T. Kang, Y. Aghakhani, G.B. Pike, B.G. Goodyear, P. Federico, *Patient specific hemodynamic response functions associated with interictal discharges recorded via simultaneous intracranial EEG-fMRI*, Hum. Br. Mapp. **36**(12), 5252-64 (2015).
26. E. Alonso-Ortiz†, I.R. Levesque, G.B. Pike, *MRI-based myelin water imaging: A technical review*, Magn. Reson. Med. **73**(1), 70-81 (2015).
27. N. Stikov, M. Boudreau, I.R. Levesque, C.L. Tardif, J.K. Barral, G.B. Pike, *On the accuracy of T1 mapping: Searching for common ground*, Magn. Reson. Med. **73**(2), 514-522 (2015).
28. T. Zhang, J.M. Pauly, I.R. Levesque, *Accelerating parameter mapping with a locally low rank constraint*, Magn. Reson. Med. **73**(2), 655-661 (2015).
29. Y. Ma, A.J. Berman, G.B. Pike, *The effect of dissolved oxygen on the relaxation rates of blood plasma: Implications for hyperoxia calibrated BOLD*, Magn. Reson. Med. **74**(6), (2015). DOI: 10.1002/mrm.26069.
30. G. Aldosary†, A. Nobah, F. Al-Zorkani, S. Devic, B. Mofteh, *A practical method of modelling a treatment couch using cone-beam computed tomography for intensity-modulated radiation therapy and RapidArc treatment delivery*, Med. Dosim. **40**(4), 304-313 (2015). pii: S0958-3947(15)00033-3. doi: 10.1016/j.meddos.2015.03.008.
31. M.A. Renaud†, D. Roberge, J. Seuntjens, (2015) *Latent uncertainties of the pre-calculated track Monte Carlo method*, Med. Phys. **42**, 479 (2015).
32. S. Lee†, N. Ybarra, K. Jeyaseelan, S. Faria, N. Kopek, P. Brisebois, J.D. Bradley, C. Robinson, J. Seuntjens, I. El Naqa, *Bayesian network ensemble as a multivariate strategy to predict radiation pneumonitis risk*, Med. Phys. **42**(5), 2421-2430 (2015). doi: 10.1118/1.4915284.
33. J.R. Hiatt, S.D. Davis, M.J. Rivard, *A revised dosimetric characterization of the model S700 electronic brachytherapy source containing an anode-centering plastic insert and other components not included in the 2006 model*, Med. Phys. **42**, 2764-2776 (2015).

34. J. Seuntjens, L. Beaulieu, D.L. Collins, P. Despres, S. Devic, I. El Naqa, J. Nadeau, G.B. Pike, A. Reader, *MO-DE-BRA-04: The CREATE Medical Physics Research Training Network: Training of new generation innovators*, Med Phys. **42**(6), 3557 (2015).
35. D. Lewis, S. Devic, *Correcting scan-to-scan response variability for a radiochromic film-based reference dosimetry system*, Med. Phys. **42**, 5692 (2015). doi: 10.1118/1.4929563.
36. H. Bouchard, Y. Kamio†, H. Palmans, J. Seuntjens, S. Duane, *Detector dose response in megavoltage small photon beams: II-Pencil beam perturbation effects*, Med. Phys. **42**(10), 6048-6061 (2015).
37. H. Bouchard, J. Seuntjens, S. Duane, Y. Kamio†, H. Palmans, *Detector dose response in megavoltage small photon beams: I-Theoretical concepts*, Med. Phys. **42**(10), 6033-6047 (2015).
38. R. Maglieri†, A. Lincea, M. Evans, J. Seuntjens, J. Kildea, *Measuring neutron spectra in radiotherapy using the nested neutron spectrometer*, Med. Phys. **42**, 6162- 6169 (2015).
39. J. Renaud†, A. Sarfehnia, K. Marchant, M.R. McEwen, C. Ross, J. Seuntjens, *Direct measurement of electron beam quality conversion factors using water calorimetry*, Med. Phys. **42**(11), 6357-6368 (2015).
40. D. Roberge, C. Leclerc-Champagne, R. Doucet, J. Seuntjens, *How low should you go: Choice of minimum dose prescription in cranial radiosurgery*, Cureus, J. Med. Sci. **7**(6), e282 (2015).
41. K. Weier, C. Till, V. Fonov, E.A. Yeh, D.L. Arnold, B. Banwell, D.L. Collins, *Contribution of the cerebellum to cognitive performance in children and adolescents with multiple sclerosis*, J. Mult. Scler. July 22, 2015: Epub ahead of print.
42. N. Akbar, B. Aubert-Broche, B.L. Banwell, C. Till, D.L. Collins, *Altered resting-state functional connectivity in cognitively preserved pediatric-onset MS patients and relationship to structural damage and cognitive performance*, J. Mult. Scler. Journal, September 11, 2015: Epub ahead of print.
43. K. Weier, V. Fonov, B. Aubert-Broche, D.L. Arnold, B. Banwell, D.L. Collins, *Impaired growth of the cerebellum in pediatric-onset acquired CNS demyelinating disease*, J. Mult. Scler. November 9, 2015: Epub ahead of print.
44. W. Poon, X. Zhang, D. Bekah†, J.G. Teodoro, J.L. Nadeau, *Targeting B16 tumors in vivo with peptide-conjugated gold nanoparticles*, Nanotech. **26**(8), 285101 (2015). Epub June 26, 2015.
45. D.P. Hibar et al, G.B. Pike et al, P.M. Thompson, S.E. Medland, *Common genetic variants influence human subcortical brain structures*, Nature **520**(7546), 224-9 (2015).
46. S.F. Eskildsen, P. Coupé, V.S. Fonov, J.C. Pruessner, D.L. Collins, *Alzheimer's disease neuroimaging initiative, Structural imaging biomarkers of Alzheimer's disease: Predicting disease progression*, Neurobiol. Aging **36**, S23-31 (2015).
47. B.S. Khundrakpam, J. Tohka, A.C. Evans, Brain Development Cooperative Group (D.L. Collins et al.), *Prediction of brain maturity based on cortical thickness at different spatial resolutions*, Neuroimage **111**, 350-9 (2015).
48. N. Guizard, P. Coupé, V.S. Fonov, J.V. Manjón, D.L. Arnold, D.L. Collins, *Rotation-invariant multi-contrast non-local means for MS lesion segmentation (RMNMS)*, NeuroImage: Clinical **8**, 376-89 (2015).
49. K. Nakamura, R.A. Brown, S. Narayanan, D.L. Collins, D.L. Arnold, *Diurnal fluctuations in brain volume: Statistical analyses of MRI from large populations*, Neuroimag. **118**, 126-132 (2015).
50. N. Stikov, J.S. Campbell, T. Stroh, M. Lavelée, S. Frey, J. Novek, S. Nuara, M.K. Ho, B.J. Bedell, R.F. Dougherty, I.R. Leppert, M. Boudreau, S. Narayanan, T. Duval, J. Cohen-Adad, P.A. Picard, A. Gasecka, D. Côté, G.B. Pike, *In vivo histology of the myelin g-ratio with magnetic resonance imaging*, Neuroimage **118**, 397-405 (2015).
51. D.M. Cash, C. Frost, L.O. Ithme, D. Ünay, M. Kandemir, J. Fripp, O. Salvado, P. Bourgeat, M. Reuter, B. Fischl, M. Lorenzi, G.B. Frisoni, X. Pennec, R. Pierson, J.L. Gunter, M.L. Senjem, C.R. Jack Jr, N. Guizard, V.S. Fonov, D.L. Collins et al, *Assessing atrophy measurement techniques in dementia: Results from the MIRIAD atrophy challenge, Part 1: Methodology, repeatability and symmetry*, NeuroImage **123**, 149-164 (2015).
52. D.M. Cash, C. Frost, L. O. Ithme, D. Ünay, M. Kandemir, J. Fripp, O. Salvado, P. Bourgeat, M. Reuter, B. Fischl, M. Lorenzi, G.B. Frisoni, X. Pennec, R. Pierson, J.L. Gunter, M.L. Senjem, C.R. Jack Jr, N. Guizard, V.S. Fonov, D.L. Collins et al, *Assessing atrophy measurement techniques in dementia: Results from the MIRIAD atrophy Challenge, Part 2: Comparison of required sample sizes for clinical trials*, NeuroImage **123**, 149-164 (2015).
53. S.A. Grover, B. Aubert-Broche, D. Fetco, D.L. Collins, D.L. Arnold, M. Finlayson, B.L. Banwell, R.W. Motl, E.A. Yeh, *Lower physical activity is associated with higher disease burden in pediatric multiple sclerosis*, Neurology **85**(19), 1663-9 (2015).

54. N. Faridi, S. Karama, M. Burgaleta, M.T. White, A.C. Evans, V.S. Fonov, D.L. Collins, D.P. Waber, *Neuroanatomical correlates of behavioral rating versus performance measures of working memory in typically developing children and adolescents*, *Neuropsych.* **29**(1), 82-91 (2015).
55. J. Ansado, D.L. Collins, V.S. Fonov et al., *A new template to study callosal growth shows specific growth in anterior and posterior regions of the corpus callosum in early childhood*, *Eur. J. Neurosci.* **42**, 1675-1684 (2015).
56. I.J. Gerard, J.A. Hall, K. Mok, D.L. Collins, *New protocol for skin landmark registration in image-guided neurosurgery: Technical note*, *Neurosurg.* **11**(3), 376- 81 (2015).
57. M. Hatt, M. Majdoub, M. Vallières†, F. Tixier, C.C. Le Rest, D. Groheux, E. Hindié, A. Martineau, O. Pradier, R. Hustinx, R. Perdrisot, R. Guillevin, I. El Naqa, D. Visvikis, *18F-FDG PET uptake characterization through texture analysis: investigating the complementary nature of heterogeneity and functional tumor volume in a multi-cancer site patient cohort*, *J. Nucl. Med.* **56**(1), 38-44 (2015). doi: 10.2967/jnumed.114.144055. Epub 2014 Dec 11.
58. A. Bezdjian, M.A. Mujica-Mota, S. Devic, S.J. Daniel, *The effect of radiotherapy on gentamicin ototoxicity: An animal model*, *Otolaryn. Head Neck Surg.* **152**(6), 1094-1101 (2015).
59. L. Beaulieu, I. El Naqa, P. Després, J. Seuntjens, *Special section: Selected papers from the Fifth International Workshop on Monte Carlo Techniques in Medical Physics*, *Phys. Med. Biol.* **60**(13), 4947-4950 (2015).
60. M. Vallières†, C.R. Freeman, S.R. Skamene, I. El Naqa, *A radiomics model from joint FDG-PET and MRI texture features for the prediction of lung metastases in soft-tissue sarcomas of the extremities*, *Phys. Med. Biol.* **60**, 471 (2015). Editors's Choice.
61. M. Serban, J. Seuntjens, E. Roussin, A. Alexander, J-R. Tremblay, W. Wierzbicki, *Patient-specific compensation for Co-60 TBI treatments based on Monte Carlo design: A feasibility study*, *Physica Medica* **32**: pp. 67-75, (2015).
62. S. Aldelajjan, F. Alzorkany, B. Moftah, I. Buzurovic, J. Seuntjens, N. Tomic, S. Devic, *Use of a control film piece in radiochromic film dosimetry*, *Physica Medica: Eur. J. Med. Phys.* **32**(1), 202-207 (2015). doi: 10.1016/j.ejmp.2015.12.004.
63. M. Bernal, M.C. Bordage, J. Brown, M. Davidkova, M. Delage, Z. El Bitar, S.A. Enger, Z. Francis, S. Guatelli, V. Ivantchenko, M. Karamitros, I. Kyriakou, L. Maigne, S. Meylan, K. Murakami, S. Okada, H. Payno, Y. Perrot, T. Pham, H. Tran, T. Sasaki, V. Stepan, C. Villagrasa, S. Incerti, *Track structure modeling in liquid water: A review of the Geant4-DNA very low energy extension of the Geant4 Monte Carlo simulation toolkit*, *Physica Medica: Eur. J. Med. Phys.* **31**, 861-874 (2015).
64. N. Guizard, V.S. Fonov, D. Garcia-Lorenzo, K. Nakamura, B. Aubert-Broche, D.L. Collins, *Spatio-temporal regularization for longitudinal registration to subject-specific 3D template*, *PLoS ONE* **10**(8), e0133352 (2015).
65. M. Lecavalier-Barosum, L. Souhami, F. Cury, M. Duclos, R. Ruo, S. Faria, *Pelvic lymph node displacement in high-risk prostate cancer patients treated with image guided intensity modulated radiation therapy with 2 independent target volumes*, *Pract. Radiat. Oncol.* **5**(6), 406-10 (2015).
66. S. Shrivastava, J.J. Mansure, W. Almajed, F. Cury, G. Ferbeyre, M. Popovic, J. Seuntjens, W. Kassouf, *The role of HMGB1 in radio-resistance of bladder cancer*, *Mol. Can. Therap.*, e-pub December 2015.
67. T. Vuong, R.A. Nout, T.M. Niazi, A. Garant, A. Bujold, A.G. Martin, S. Ferland, G. Stroian, J. Thebaut, A. Syme, S. Devic, *Radiation therapy as a curative modality for patients with rectal cancer*, *Int. J. Radiat. Oncol. Biol. Phys.* **93**(3), e168-e169 (2015). DOI:10.1016/j.ijrobp.2015.07.982.
68. G.M. Videtic, C. Hu, A.K. Singh, J.Y. Chang, W. Parker, K.R. Olivier, S.E. Schild, R. Komaki, J.J. Urbanic, H. Choy, *A randomized phase 2 study comparing 2 stereotactic body radiation therapy schedules for medically inoperable patients with stage I peripheral non-small cell lung cancer*, *NRG Oncology RTOG 0915 (NCCTG N0927)*, *Int. J. Radiat. Oncol. Biol. Phys.* **93**(4), 757-64 (2015). doi: 10.1016/j.ijrobp.2015.07.2260. Epub 2015 Jul 17.
69. C.M. Poole, A. Ahnesjö, S.A. Enger, *Determination of subcellular compartment sizes for estimating dose variations in radiotherapy*, *Radiat. Prot. Dosim.* **166**(1-4), 361-364 (2015).
70. A. Nobah, M. Mohiuddin, S. Devic, B. Moftah, *Effective spatially fractionated GRID radiation treatment planning for a passive grid block*, *Br. J. Radiol.* **88**, 20140363 (2015); doi: 10.1259/bjr.20140363.
71. J. Coates†, A.K. Jeyaseelan, N. Ybarra, M. David, S. Faria, L. Souhami, F. Cury, M. Duclos, I. El Naqa, *Contrasting analytical and data-driven frameworks for radiogenomic modeling of normal tissue toxicities in prostate cancer*, *Radiother. Oncol.* **115**(1), 107-13 (2015). pii: S0167-8140(15)00142-5. doi: 10.1016/j.radonc.2015.03.005.

72. D. Fang, S. Hu, Y. Liu, V-H Quan, J. Seuntjens, S.D. Tran, *Identification of the active components in bone marrow soup: A mitigator against irradiation-injury to salivary glands*, *Sci. Rep.* **5**, 16017 (2015).
73. R. Harmouche, N.K. Subbanna, D.L. Collins, D.L. Arnold, T. Arbel, *Probabilistic multiple sclerosis lesion classification based on modelling regional intensity variability and local neighbourhood information*, *IEEE Trans. Biomed. Eng.* **62**(5), 1281-92 (2015).
74. H. Rivaz, S.J.S Chen, D.L. Collins, *Automatic deformable MR-ultrasound registration for image-guided neurosurgery*, *IEEE Trans. Med. Imag.* **34**(2), 366-80 (2015).
75. Z. Karimaghloo, H. Rivas, D.L. Collins, D.L. Arnold, T. Arbel, *Temporal hierarchical adaptive texture CRF for automatic detection of Gadolinium-enhancing multiple sclerosis lesions in brain MRI*, *IEEE Trans. Med. Imag.* **34**(6), 1227-41 (2015).
76. B.H. Menze, A. Jakab, S. Bauer, J. Kalpathy-Cramer, K. Farahani, J. Kirby, Y. Burren, N. Porz, J. Slotboom, R. Wiest, L. Lanczi, E. Gerstner, M. Weber, T. Arbel, B. B. Avants, N. Ayache, P. Buendia, D. L. Collins, et al, *The multimodal brain tumor image segmentation benchmark (BRATS)*, *IEEE Trans. Med. Imag.* **34**(10), 1993-2024 (2015).
77. S. Beriault, Y. Xiao, D.L. Collins, G.B. Pike, *Automatic SWI venography segmentation using conditional random fields*, *IEEE Trans. Med. Imag.* **34**(12), 2478-2491 (2015).
78. H. Rivaz, D.L. Collins, *Near real-time robust non-rigid registration of volumetric ultrasound images for neurosurgery*, *Ultra. Med. Biol.* **41**(2), 574-587 (2015).
79. D. Stoyanov, D.L. Collins, I. Sakuma, P. Abolmaesumi, P. Jannin, *Information processing in computer-assisted interventions: 5th international conference, 2014* in "International Journal of Computer Assisted Radiology and Surgery", pp. 1355- 1356, Springer International Publishing.
80. B. Aubert-Broche, V. Fonov, K. Weier, S. Narayanan, D.L. Arnold, B. Banwell, D.L. Collins, *Is it possible to differentiate the impact of pediatric monophasic demyelinating disorders and multiple sclerosis after a first episode of demyelination?*, in "Spatio-temporal Image Analysis for Longitudinal and Time-Series Image Data: Lecture Notes in Computer Science", pp. 38-45, Springer International Publishing.
81. S. Drouin, M. Kersten-Oertel, D.L. Collins, *Interaction-based registration corection for improved augmented reality overlay in neurosurgery, Augmented environments for computer assisted interventions' (Proceedings of MICCAI AE-CAI Workshop 2015)*, *Lecture Notes in Computer Science*, Volume 9365, 21–29 (2015).
82. M. Kersten-Oertel, I.J. Gerard, S. Drouin, K. Mok, D. Sirhan, D.S. Sinclair, D.L. Collins, *Augmented reality for specific neurovascular surgical tasks: Augmented environments for computer assisted interventions (Proceedings of MICCAI AE-CAI Workshop 2015)*, *Lecture Notes in Computer Science*, Volume 9365:92-103 (2015).
83. S. Lee†, I. El Naqa, *Machine learning methodology*, in I. El Naqa, R. Li, M.J. Murphy, "Machine Learning in Radiation Oncology", pp. 21-39 (2015), Springer International Publishing.
84. K. Kudinov, D. Cooper†, P. Tyagi, D. Bekah†, D. Bhattacharyya, C. Hill, H.J. Kin, J.L. Nadeau, S.G. Bradforth, *Evidence of energy transfer in nanoparticle-porphyrins conjugates for radiation therapy enhancement*, *Proc. SPIE* **9338** Colloidal Nanoparticles for Biomedical Applications X 93380H (March 12, 2015); doi:10.1117/12.2077985.