

APPENDIX IX.

PUBLICATIONS

by members of the Medical Physics Unit : 2020 calendar year (x 70)
(names of MPU staff members are underlined, students are indicated by †)

1. H.M. Patrick†, L. Souhami, J. Kildea, *Reduction of inter-observer contouring variability in daily clinical practice through a retrospective, evidence-based intervention*, Acta Oncologica, 1-8 Sep 2020. <https://doi.org/10.1080/0284186X.2020.1825801>. Online ahead of print.
2. M. Dadar, R. Camicioli, S. Duchesne, D.L. Collins, Alzheimer's Disease Initiative, *The temporal relationships between white matter hyperintensities, neurodegeneration, amyloid beta, and cognition*, Alzh. Dement. **12**(1), e12091. Doi: 10.1002/dad2.12091. PMID: 33083512. PMCID: PMC7552231.
3. E. Sepulveda†, H.M. Patrick†, C.R. Freeman, J. Kildea, *Implementation of a DVH registry to provide constraints and continuous quality monitoring for pediatric CSI treatment planning*, J. Appl. Clin. Med. Phys. **14** Dec 2020. <https://doi.org/10.1002/acm2.13131>,
4. H.M. Patrick†, T. Hijal, L. Souhami, C.R. Freeman, W. Parker, L. Joly, J. Kildea, *A Canadian response to the Coronavirus disease 2019 (COVID-19) pandemic: Is there a silver lining for radiation oncology patients?*, Adv. Radiat. Oncol. **5**(4), 774-776 (2020). doi: 10.1016/j.adro.2020.06.016. eCollection Jul-Aug 2020.
5. A. Pichet Binette, É. Vachon-Presseau, J. Morris, R. Bateman, T. Benzinger, D.L. Collins, J. Poirier, J.C.S. Breitner, S. Villeneuve, Dominantly Inherited Alzheimer Network (DIAN), PREVENT-AD Research Group, *Amyloid and tau pathology associations with personality traits, neuropsychiatric symptoms, and cognitive lifestyle in the preclinical phases of sporadic and autosomal dominant Alzheimer's disease*, Biol. Psych. 2020 Feb 6, S0006-3223(20)30058-5. Doi: 10.1016/j.biopsych.2020.01.023.
6. C.J. Anor, M. Dadar, D.L. Collins, M.C. Tartaglia, *The longitudinal assessment of neuropsychiatric symptoms in mild cognitive impairment and Alzheimer's disease and their association with white matter hyperintensities in the National Alzheimer's Coordinating Center's uniform data set*, Biol. Psych. Cogn. Neurosci. Neuroimaging **6**(1), 70-78 (2020). Doi: 10.1016/j.bpsc.2020.03.006. Epub 200 Apr 2. PMID: 32389747. PMCID: PMC7529680.
7. G. Famulari†, J. Alfieri, M. Duclos, T. Vuong, S.A. Enger, *Can intermediate-energy sources lead to elevated bone doses for prostate and head & neck high-dose-rate brachytherapy?*, Brachytherapy (2020) Jan 18. pii: S1538-4721(19)30653-1. doi: 10.1016/j.brachy.2019.12.004. [Epub ahead of print]
8. M. Dadar, A.L. Manera, L. Zinman, L. Korngut, A. Genge, S.J. Graham, R. Frzyne, D.L. Collins, S. Kalra, *Cerebral atrophy in amyotrophic lateral sclerosis parallels the pathological distribution of TDP43*, Brain Commun. **2**(2), fcaa061 (2020). Doi: 10.1093/braincomms/fcaa061. PMID: 33543125. PMCID: PMC7846188.
9. A. Pichet Binette, J. Gonneaud, J.W. Vogel, R. La Joie, P. Rosa-Neto, D.L. Collins, J. Poirier, J.C.S. Breitner, S. Ville neuve, E. Vachon-Presseau, Alzheimer's Disease Neuroimaging Initiative, PREVENT-AD Research Group, *Morphometric network differences in ageing versus Alzheimer's disease dementia*, Brain: J. Neurology **143**(2), 635-649 (2020).
10. J. Germann, M.M. Chakravarty, D.L. Collins, M. Petrides, *Tight coupling between morphological features of the central sulcus and somatotopic body representations: A combined anatomical and functional MRI study*, Cereb. Cortex **30**(3), 1843-1854 (2020). doi: 10.1093/cercor/bhz208. PMID: 31711125; PMCID: PMC7132904.
11. H. Acosta, K. Kantojärvi, N. Hashempour, J. Pelto, N.M. Scheinin, S.J. Lehtola, J.D. Lewis, V.S. Fonov, D.L. Collins, A.C. Evans, R. Parkkola, T. Lähdesmäki, J. Saunavaara, L. Karlsson, H. Merisaari, T. Paunio, H. Karlsson, J.J. Tuulari, *Partial support for an interaction between a polygenic risk score for major depressive disorder and prenatal maternal depressive symptoms on infant right amygdalar volumes*, Cereb. Cortex **30**(12), 6121-6134 (2020). Doi: 10.1093/cercor/bhaa158. PMID: 32675548.
12. É. Léger, J. Reyes, S. Drouin, T. Popa, J.A. Hall, D.L. Collins, M. Kersten-Oertel, *MARIN: An open-source mobile augmented reality interactive neuronavigation system*, Int. J. Comput. Assis. Radiol. Surg. **15**(6), 1013-1021 (2020).
13. A. Brignol, H.E. Gueziri, F. Cheriet, D.L. Collins, C. Laporte, *Automatic extraction of vertebral landmarks from ultrasound images: A pilot study*, Comput. Biol. Med. **122**, 103838 (2020).
14. X. Su, Y. Liu, M. Bakkar, O. ElKashty, M. El-Hakim, J. Seuntjens, S.D. Tran, *Labial stem cell extract mitigates injury to irradiated salivary glands*, J. Dent. Res. **99**(3), 293-301 (2020). doi: 10.1177/0022034519898138.
15. L. Montgomery†, A. Landry, G. Al Makdessi†, F. Mathew†, J. Kildea, *A novel MLEM stopping criterion for unfolding neutron fluence spectra in radiation therapy*, "Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers", Detec. Assoc. Equip. **957**, (2020). doi.org/10.1016/j.nima.2020.163400.
16. M. Chetvertkov, J.I. Monroe, J. Boparai, T.D. Solberg, D.H. Pafundi, R.L. Ruo, G.J. Gladstone, F.F. Yin, I.J. Chetty, S. Benedict, D.S. Followill, Y. Xiao, J.W. Sohn, *NRC oncology survey on practice and technology use in SRT and SBRT delivery*, Front. Oncol. 27 Nov 2020, 10:602607. Doi: 10.3389/fonc.2020.602607. eCollection 2020. PMID: 33330102.

17. P. Novosad, V.S. Fonov, D.L. Collins, Alzheimer's Disease Neuroimaging Initiative, *Accurate and robust segmentation of neuroanatomy in T1-weighted MRI by combining spatical priors with deep convolutional neural networks*, Hum. Brain Mapp. **41**(2), 309-327 (2020). Doi: 10.1002/hbm.24803. Epub 2019 Oct 21. PMID: 31633863. PMCID: PMC7267949.
18. T. Lefebvre†, L. Petitclerc, M. Hébert, L. Bilodeau, G. Sebastiani, D. Olivieri, Z.H. Gao, M.P. Sylvestre, G. Cloutier, A. Tang, *MRI cine-tagging of cardiac-induced motion for non-invasive staging of liver fibrosis*, J. Magn. Reson. Imag. **51**(5), 1570-1580 (2020). Doi: 10.1002/jmri.26935.
19. Y. Zou†, G. Bub, *Comparison of complexity and predictability of a cellular automaton model in excitable media cardiac wave propagation compared with a FitzHugh-Nagumo model*, McGill Science Undergraduate Research Journal, 66-71, 2019-2020 issue.
H.E. Gueziri, C. Santaguida, D.L. Collins, *The state-of-the-art in ultrasound-guided spine interventions*. Med. Image Anal. **65**, 101769. Doi: 10.1016/j.media.2020.101769. Epub 2020 Jun 26. PMID: 32668375.
20. G. Famulari†, M. Duclos, S.A. Enger, *A novel ¹⁶⁹Yb-based dynamic-shield intensity modulated brachytherapy delivery system for prostate cancer*, Med. Phys. **47**(3), 859-868 (2020). **Winner of the Jean Pouliot Prize, awarded by AQPMC.**
21. G. Famulari†, H.M. Linares Rosales, J. Dupere, D.C. Medich, L. Beaulieu, S.A. Enger, *Monte Carlo dosimetric characterization of a new high dose rate 169 Yb brachytherapy source and independent verification using a multipoint plastic scintillator detector*, Med. Phys. **47**(9), 4563-4573 (2020). PMID: 32686145. doi: 10.1002/mp.14336. [Epub ahead of print]
22. Z. Ahmed†, I.R. Levesque, *Pharmacokinetic modeling of dynamic contrast enhanced MRI using a reference region and the input function tail*, Magn. Reson. Med. **23**(1), 286-298 (2020). <https://doi.org/10.1002/mrm.27913>
23. M. Dadar, D.L. Collins, BISON, *Brain tissue segmentation pipeline using T1-weighted magnetic resonance images and a random forest classifier*, Magn. Reson. Med. **85**(4), 1881-1894 (2020). Doi: 10.1002/mrm.28547. Epub 2020 Oct 11. PMID: 33040404.
24. J. Renaud, A. Sarfehnia, J. Bancheri†, J. Seuntjens, *Absolute dosimetry of a 1.5 T MR-guided accelerator-based high energy photon beam in water and solid phantoms using Aerrow*, Med. Phys. **47**(3), 1291-1304 (2020).
25. J. Mullins†, M.A. Renaud†, M. Serban, J. Seuntjens, *Simultaneous trajectory generation and volumetric modulated arc therapy optimization*, Med. Phys. **47**(7), 3078-3090 (2020). doi: 10.1002/mp.14155.
26. J. Mullins†, M.A. Renaud†, V. Heng†, R. Ruo, F. DeBlois, J. Seuntjens, *Trajectory-based VMAT for cranial targets with delivery at shortened SAD*, Med. Phys. **47**(7), 3103-3112 (2020). doi: 10.1002/mp.14151.
27. S.W. Culberson, S.D. Davis, G.G.Y. Kim, J.R. Lowenstein, Z. Ouhib, M. Popovic, T.J. Waldron, H. Safigholi, S.J. Simiele, M.J. Rivard, *Dose-rate considerations for the INTRABEAM electronic brachytherapy system: Report from the American Association of Physicists in Medicine task group no. 292*, Med. Phys. **47**(8), e913-e919 (2020). doi: 10.1002/mp.14163.
28. L. Mirzakhani†, R. Bassalow, C. Huntzinger, J. Seuntjens, *Extending the IAEA-AAPM TRS-483 methodology for radiation therapy machines with field size down to 10 x 2 cm²*, Med. Phys. **47**(10), 5209-5221 (2020). doi: 10.1002/mp.14325.
29. M. Morcos†, M. Antaki†, A.N. Viswanathan, S.A. Enger, *A novel minimally invasive dynamic-shield, intensity-modulated brachytherapy system for the treatment of cervical cancer*, Med. Phys. (2020). doi: 10.1002/mp.14459. [Epub ahead of print]
30. S. Aldelaijan†, S. Devic, H. Bekerat, P. Papaconstadopoulos, J. Schneider†, J. Seuntjens, R.A. Cormack, I.M. Buzurovic, *Positional and angular tracking of HDR 192 Ir source for brachytherapy quality assurance using radiochromic film dosimetry*, Med. Phys. (2020). doi: 10.1002/mp.14540. Online ahead of print.
31. E. Kang, M. Popovic, G. Noel, *Integration of gross anatomy laboratory sessions into Medical Physics curriculum*, Med. Sci. Educ. **30**, 1765-1773 (2020). <https://doi.org/10.1007/s40670-020-01099-5>
32. M. Dadar, S.M. Fereshtehnejad, Y. Zeighami, A. Dagher, R.B. Postuma, D.L. Collins, *White matter hyperintensities mediate impact of dysautonomia on cognition in Parkinson's disease*, Mov. Disord. Clin. Pract. **7**(6), 639-647 (2020). Doi: 10.1002/mdc3.13003. PMID: 32775509. PMCID: PMC7396867.
33. M. Dadar, S.M. Fereshtehnejad, Y. Zeighami, A. Dagher, R.B. Postuma, D.L. Collins, Reply to: *Cerebral vasomotor reactivity in Parkinson's disease; A missing link between dysautonomia, white matter lesions, and cognitive decline?*, Mov. Disord. Clin. Pract. **7**(8), 996-998 (2020).doi: 10.1002/mdc3.13037. PMID: 33163575. PMCID: PMC7604642.
34. M. Dadar, S. Narayanan, D.L. Arnold, D.L. Collins, J. Maranzano, *Conversion of diffusely abnormal white matter to focal lesions is linked to progression in secondary progressive multiple sclerosis*, Mult. Scler. **27**(2), 208-219 (2020). Doi: 10.1177/1352458520912172. Epub 2020 Mar 23. PMID: 32202199.
35. G.A. Mandl, D. Van der Heggen, D.R. Cooper, J.J. Joos, J. Seuntjens, P.F. Smet, J.A. Capobianco, *On a local (de-)trapping model for highly doped Pr³⁺ radioluminescent and persistent luminescent nanoparticles*, Nanoscale **12**(40), 20759-20766 (2020). doi: 10.1039/d0nr06577c.
36. J. Maranzano, M. Dadar, M. Zhernovaia, D.L. Arnold, D.L. Collins, S. Narayanan, *Automated separation of diffusely abnormal white matter from focal white matter lesions on MRI in multiple sclerosis*, Neuroimage **123**, 116690 (2020). Doi: 10.1016/j.neuroimage.2020.116690.
37. A. Michaud, M. Dadar, M. Pelletier, Y. Zeighami, I. Garcia-Garcia, S. Iceta, Y. Yau, M. Naudea, S. Marceau, L. Nioertho, A. Tchernof, D.L. Collins, D. Richard, A. Dagher, *Neuroanatomical changes in white and grey matter after sleeve gastrectomy*, Neuroimage **123**, 116696 (2020).
38. S. Narayanan, K. Nakamura, V.S. Fonov, J. Maranzano, Z. Caramanos, P.S. Giacomini, D.L. Collins D.L. Arnold, *Brain volume loss in individuals over time: Source of variance and limits of detectability*, Neuroimage **214**, 116737 (2020).

39. A. Zandifar, V.S. Fonov, S. Ducharme, S. Belleville, D.L. Collins, Alzheimer's Disease Neuroimaging Initiative, *MRI and cognitive score complement each other to accurately predict Alzheimer's dementia 2 to 7 years before clinical onset*, Neuroim. Clin. **25**:102121. Doi: 10.1016/j.nicl.2019.102121. Epub 2019 Dec 16. PMID: 3193400. PMCID: PMC6957831.
40. A. Cárdenas de la Parra, J.D. Lewis, V.S. Fonov, K.N. Botteron, R.C. McKinstry, G. Gerig, J.R. Pruett Jr, S.R. Dager, J.T. Elliot, M.A. Styner, A.C. Evans, J. Piven, D.L. Collins: IBIS Network, *A voxel-wise assessment of growth differences in infants developing autism spectrum disorder*, Neuroim. Clin. **29**:102551. Doi: 10.1016/j.nicl.2020.102551. Epub ahead of print. PMID: 33421871. PMCID: PMC7806791.
41. H. Acosta, K. Kantojärvi, J.J. Tuulari, J.D. Lewis, N. Hashempour, N.M. Scheinin, S.J. Lehtola, V.S. Fonov, D.L. Collin, A.C. Evans, R. Parkkola, T. Lähdesmäki, J. Saunavaara, H. Merisaari, L. Karlsson, T. Paunio, H. Karlsson, *Sex-specific association between infant caudate volumes and a polygenic risk score for major depressive disorder*, J. Neurosci. Res. **98**(12), 2529-2540 (2020). Doi: 10.1002/jnr.24722. Epub 2020 Sep 9.
42. F. Mathew†, C. Chilian, L. Montgomery†, J. Kildea, *Development of a passive gold-foil nested neutron spectrometer to validate the active current-mode He-3 measurements in a high neutron fluence rate radiotherapy environment*, Nuclear Instruments & Methods in Physics Research – Section A: Accelerators, Spectrometers, Detectors & Associated Equipment **985**, 164662 (2020).
43. A. Chatterjee, M. Serban, S. Faria, L. Souhami, F. Cury, J. Seuntjens, *Novel knowledge-based treatment planning model for hypofractionated radiotherapy of prostate cancer patients*, Phys. Med. **69**, 36-43 (2020).
44. A. Chatterjee†, M. Vallières†, J. Seuntjens, *Over-looked pitfalls in multi-class machine learning classification in radiation oncology and how to avoid them*, Phys. Med. **70**, 96-100 (2020). doi: 10.1016/j.ejmp.2020.01.009. [Epub ahead of print]
45. M. Morcost, S.A. Enger, *Monte Carlo dosimetry study of novel rotating MRI-compatible shielded tandems for intensity modulated cervix brachytherapy*, Phys. Med. **71**, 178-184 (2020). doi: <https://doi.org/10.1016/j.ejmp.2020.02.014>
46. C.M. Lund†, G. Famulari†, L. Montgomery†, J. Kildea, *A microdosimetric analysis of the interactions of mono-energetic neutrons with human tissue*, Phys. Med. **73**, 29-42 (2020).
47. V.J. Heng†, M.A. Renaud†, K. Zerouali, R. Doucet, A. Diamant†, H. Bahig, F. DeBlois, J. Seuntjens, *Large-scale dosimetric assessment of Monte Carlo recalculated doses for lung robotic stereotactic body radiation therapy*, Phys. Med. **76**, 7-15 (2020). doi: 10.1016/j.ejmp.2020.06.006. [Epub ahead of print].
48. L. Carroll†, E. Croteau, G. Kertzscher, O. Sarrhini, V. Turgeon†, R. Lecomte, S.A. Enger. *Cross-validation of a non-invasive positron detector to measure the arterial input function for pharmacokinetic modelling in dynamic positron emission tomography*, Phys. Med. **76**, 92-99 (2020). DOI: 10.116/j.ejmp.2020.06.009.
49. B. Mofteh, S. Aldelajant, M. Shehadeh, F. Alzorkany, F. Alrumayan, G. Alsbeih, M. Alshabanah, J. Seuntjens, N. Tomic, S. Devic, *Calibration of MTT assay in proton beams using radiochromic films*, Phys. Med. **77**, 146-153 (2020). Doi: 10.1016/j.ejmp.2020.08.003.
50. Y. Zlateva†, B.R. Mui, I. El Naqa, J. Seuntjens, *Step-size effect on calculated photon and electron beam Cherenkov-to-dose conversion factors*, Phys. Med. **78**, 32-37 (2020). doi: 10.1016/j.ejmp.2020.08.015. Online ahead of print.
51. F. Mathew†, G. Almakdessi, L. Montgomery†, M.D.C. Evans, J. Kildea, *The impact of treatment parameter variation on secondary neutron spectra in high-energy electron beam radiotherapy*, Phys. Med. **80**, 125-133 (2020). doi: 10.1016/j.ejmp.2020.10.016. Online ahead of print. PMID: 33171382
52. L. Mirzakhani†, A. Sarfehnia, J. Seuntjens, *Experimental validation of recommended msr-correction factors for the calibration of Leksell Gamma Knife®™ unit following IAEA TRS-483*, Phys. Med. Biol. **65**(6), (2020). doi: 10.1088/1361-6560/ab6953. [Epub ahead of print]
53. S. Albert, D. Brivio, S. Aldelajant, E. Sajo, J. Hesser, P. Zygmanski, *Towards customizable thin-panel low-Z detector arrays: Electrode design for increased spatial resolution ion chamber arrays*, Phys. Med. Biol. **65**(8), (2020). o8NT02.
54. P. Andreo, D.T. Burns, R.P. Kapsch, M.R. McEwen, S. Vatnitsky, C.E. Andersen, F. Ballester, J. Borbinha, F. Delaunay, P. Francescon, M. Hanlon, L. Mirzakhani†, B.R. Muir, J. Ojala,, C.P. Oliver, M. Pimpinella, M. Pinto, L.A. de Prez, J. Seuntjens, L. Sommier, P. Teles, J.S. Tikkanen, J. Vijande, K. Zink, *Determination of consensus kQ values for megavoltage photon beams for the update of IAEA TRS-398*, Phys. Med. Biol. **65**(9), (2020).095011; doi: 10.1088/1361-6560/ab807b.
55. J. Bancher†, S. Ketelhut, L. Bueermann, J. Seuntjens, *Monte Carlo and water calorimetric determination of kilovoltage beam radiotherapy ionization chamber correction factors*, Phys. Med. Biol. **65**(10), (2020). 105001. Doi: 10.1088/1361-6560/ab82e7.
56. X.J. Wang†, B. Miguel, J. Seuntjens, J.M. Fernandez-Varea, *On the relativistic impulse approximation for the calculation of Compton scattering cross sections and photon interaction coefficients used in kV dosimetry*, Phys. Med. Biol. **65**(12), (2020).125010. doi: 10.1088/1361-6560/ab8108.
57. D.S. Ayala Alvarez†, P.G.F. Watson, M. Popovic, V.J. Heng†, M.D.C. Evans, J. Seuntjens, *Monte Carlo calculation of the relative TG-43 dosimetry parameters for the INTRABEAM electronic brachytherapy source*, Phys. Med. Biol. **65**(24) (2020). 245041. doi: 10.1088/1361-6560/abc6f1. Online ahead of print.
58. S. Faria, R. Ruo, M. Perna, F. Cury, M. Duclos, A. Sareshoji, L. Souhami, *Long-term results of moderate hypofractionation to prostate and pelvic nodes plus androgen suppression in high-risk prostate cancer*, Pract. Radiat. Oncol. **10**(6), e514-e520, (2020). Doi: 10.1016/j.prro.2020.06.012. Epub 29 Jul 2020. PMID: 32738465.
59. P.G.F. Watson, M. Popovic, L.H. Liang, N. Tomic, S. Devic, J. Seuntjens, *Clinical implication of dosimetry formalisms for electronic low-energy photon IORT*, Prac. Radiat. Oncol., (2020) DOI: <https://doi.org/10.1016/j.prro.2020.07.005>. [Journal Pre-Proof].

60. M. Serban, C. Kirisits, A. de Leeuw et al, *Ring versus ovoids and intracavitary versus intracavitary-interstitial applicators in cervical cancer brachytherapy: Results from the EMBRACE I study*, *Int. J. Radiat. Onc. Biol. Phys.* **106**(5), 1052-1062 (2020). DOI:<https://doi.org/10.1016/j.ijrobp.2019.12.019>.
61. X. Mao[†], J. Pineau, R. Keyes, S.A. Enger, *RapidBrachyDL: Rapid radiation dose calculations in brachytherapy via deep learning*, *Int. J. Radiat. Oncol. Biol. Phys.* (2020 May 12). DOIS: <https://doi.org/10.1016/j.ijrobp.2020.04.045>.
62. T. Lefebvre[†], M. Hébert, L. Bilodeau, G. Sebastiani, M. Cerny, D. Olivie, Z-H. Gao, M-P. Sylvestre, G. Cloutier, B.N. Nguyen, G. Gilbert, A. Tang, *Intravoxel incoherent motion diffusion-weighted MRI for the characterization of inflammation in chronic liver disease*, *Eur. J. Radiol.* 2020 Sep 2. doi: 10.1007/s00330-020-07203-y. Online ahead of print.
63. A. Diamant[†], V.J. Heng[†], A. Chatterjee[†], S. Faria, H. Bahig, E. Filion, R. Doucet, F. Khosrow-Khavar, I. El Naqa, J. Seuntjens, *Comparing local control and distant metastasis in NSCLC patients between CyberKnife and conventional SBRT*, *Radioth. Oncol.* **144**, 201-208 (20). doi.org/10.1016/j.radonc.2020.01.017.
64. P.J. van Houdt, J.F. Kallehauge, K. Tanderup, R. Nout, M. Zaletelj, T. Tadic, Z.J. van Kesteren, C.A.T. van den Berg, D. Georg, J-C. Côté, I.R. Levesque, J. Swamidas, E. Malinen, S. Telliskivi, P. Brynolfsson, F. Mahmood, U.A. van der Heide, EMBRACE Collaborative Group, *Phantom-based quality assurance for multicenter quantitative MRI in locally advanced cervical cancer*, *Radioth. Oncol.* **153**, 114-121 (2020). <https://doi.org/10.1016/j.radonc.2020.09.013> Online ahead of print.
65. H. Acosta, J.J. Tuulari, K. Kantojärvi, J.D. Lewis, N. Hashempour, N.M. Scheinin, S.J. Lehtola, V.S. Fonov, D.L. Collins, A. Evans, R. Parkkola, T. Lähdesmäki, J. Saunavaara, H. Merisaari, L. Karlsson, T. Paunio, H. Karlsson, *A variation in the infant oxytocin receptor gene modulates infant hippocampal volumes in association with sex and prenatal maternal anxiety*, *Psych. Res. Neuro.* 307:111207. Doi: 10.1016/j.psychres.2020.111207. Epub 2020 Oct 14. PMID: 33168330.
66. A.L. Manera, M. Dadar, V.S. Fonov, D.L. Collins, *Cerebral registration and manual correction of Mindbogg1-101 atlas for MNI-ICBM152 template*, *Sci. Data.* **7**(1), 237 (2020). Doi: 10.1038/s41597-0200557-9. PMID: 323669554. PMCID: PMC7363886.
67. S.A. Enger, J. Vijande, M. Rivard, *Model-based dose calculation algorithms for brachytherapy dosimetry*, *Sem. Radiat. Oncol.* **30**(1), 77-86 (2020).
68. K. Tanderup, N. Nesvacil, K. Kirchheiner, M. Serban, S. Spampinato, N.B.K. Jensen, M. Schmid, S. Smet, H. Westerveld, S. Ecker, U. Mahantshetty, J. Swamidas, S. Chopra, R. Nout, L.T. Tan, L. Fokdal, A. Sturdza, I. Jürgenliemk-Schultz, A. de Leeuw, J.C. Lindegaard, C. Kirisits, R. Pötter, *Evidence-based dose planning aims and dose prescription in image-guided brachytherapy combined with radiochemotherapy in locally advanced cervical cancer*, *Sem. Radn. Onc.* **30**, 311-327 (2020).
69. H.E. Gueziri, C.X.B. Yan, D.L. Collins, *Open-source software for ultrasound-based guidance in spinal fusion surgery*, *Ultrasound Med. Biol.* **46**, 3353-3368 (2020). Doi: 10.1016/j.ultrasmedbio.2020.08.005. Epub 2020 Sep 6. PMID: 32907772.
70. A. Winkler-Schwartz, R. Yilmaz, D.H. Tran, H.E. Gueziri, B. Wing, M. Tuznik, V.S. Fonov, D.L. Collins, D.A. Rudko, J. Li, P. Debergue, V. Pazos, R. Del Maestro, *Creating a comprehensive research platform for surgical technique and operative outcome in primary brain tumor neurosurgery*, *World Neurosurgery* **144**, e62-71 (2020). Doi.org/10.1016/j.wneu.2020.07.209.