

Mr. Martin Carrier-Vallières

Correspondence language: English

Contact Information

The primary information is denoted by (*)



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Mr. Martin Carrier-Vallières

Language Skills

Language
English
French

Degrees

- 2017/9 Doctorate, Doctor of Philosophy (Ph.D.), McGill University
- 2012/12 Master's Thesis, Master of Science (M.Sc.), McGill University
- 2010/5 Bachelor's, Baccalauréat en Ingénierie (B.Ing.), École Polytechnique de Montréal

Recognitions

- 2019/12 Roblat Medal - 2018 citation prize - <https://doi.org/10.1088/0031-9155/60/14/5471>
Physics in Medicine & Biology (PMB) journal
Citation
- 2010/8 Undergraduate Student Research Award
Natural Sciences and Engineering Research Council of Canada (NSERC)
Prize / Award
- 2016/8 Expanding Horizons Travel Grant
American Association of Physicists in Medicine (AAPM)
Prize / Award
- 2013/8 Institute Community Support (ICS) Travel Award
Canadian Institutes of Health Research
Prize / Award
- 2015/8 Bourse de formation de doctorat
Fonds de recherche du Québec - Santé (FRQS)
Prize / Award

Mention d'Excellence - Baccalauréat
École Polytechnique de Montréal
Honor

Abstract selected for "Science Council Session"
American Association of Physicists in Medicine
Distinction

1st prize: Rising Star in Medical Physics Symposium awardee
Medical Physics Research Training Network (MPRTN)
Distinction

- 2010/5 Excellence Internal Awards
École Polytechnique de Montréal
Prize / Award
- 2020/6 Postdoctoral fellowship
Healthy Brains for Healthy Lives - McGill University
Prize / Award
- 2016/8 Graduate Excellence Fellowship Travel Award
McGill University
Prize / Award
- 2012/8 Bourse de maîtrise en recherche
Fonds de recherche du Québec - Nature et technologies (FRQNT)
Prize / Award
- 2016/8 Studentship – Faculty of Medicine
McGill University
Prize / Award
- 2016/8 Studentship – Research Institute
McGill University Health Centre
Prize / Award
- 2007/8 Undergraduate Student Research Award
Natural Sciences and Engineering Research Council of Canada (NSERC)
Prize / Award
- 2012/8 Bourse de formation de maîtrise
Fonds de recherche du Québec - Santé (FRQS)
Prize / Award
- 2011/8 Alexander Graham Bell Canada Graduate Scholarship (CGS M)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Prize / Award
- 2017/12 Top 100 - Read Articles - 2017 - <http://dx.doi.org/10.1038/s41598-017-10371-5>
Scientific Reports journal
Distinction
- 2015/8 Alexander Graham Bell Canada Graduate Scholarship (CGS D)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Prize / Award
- 2008/8 Undergraduate Student Research Award
Natural Sciences and Engineering Research Council of Canada (NSERC)
Prize / Award
- 2009/8 Student Mobility Travel Grant
Ministère de l'Éducation, du Loisir et du Sport du Québec (MELS)
Prize / Award
- 2020/3 Postdoctoral fellowship (PDF)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Prize / Award

User Profile

Research Interests: The main motivation of my current research is to develop an end-to-end, fully open-source computation platform for integrative data modeling in oncology: *MEDomicsLab*. Via advanced deep learning and machine learning methods based on graph theory, this platform will aim at efficiently integrating the

heterogeneous data obtained from medical images, structured information, and unstructured information of our hospitals' databases into comprehensive prediction models dedicated to improved precision oncology. Overall, the construction of such open-source platform will represent an unprecedented advance in the development of artificial intelligence in oncology.

Research Specialization Keywords: deep learning, machine learning, multi-omics data integration, natural language processing, radiomics

Research Disciplines: Biomedical Engineering and Biochemical Engineering, Computer Science, Oncology

Areas of Research: Biomedical Technologies, Computer Science and Statistics, Data mining, Radiotherapy

Employment

2020/4	Assistant Professor Université de Sherbrooke
2018/7 - 2020/4	Postdoctoral fellow McGill University
2018/9 - 2019/8	Postdoctoral fellow University of California, San Francisco
2017/7 - 2018/6	Postdoctoral fellow INSERM UMR 1101, Brest, France
2012/9 - 2016/5	Graduate Teaching Assistant McGill University

Research Funding History

Awarded [n=2]

Principal Applicant	Canada CIFAR AI Chair, Research Chair Funding Sources: CIFAR CIFAR Pan-Canadian Artificial Intelligence Strategy Total Funding - 250,000
Principal Applicant	Postdoctoral fellowship, Scholarship Funding Sources: McGill University Health Brains for Healthy Lives Total Funding - 120,000

Completed [n=6]

Principal Applicant	Expanding Horizons Travel Grant, Scholarship Funding Sources: American Association of Physicists in Medicine (AAPM) Total Funding - 1,000
Principal Applicant	Samuel S. Lerner Memorial Award, Scholarship Funding Sources: McGill University Total Funding - 250
Principal Applicant	Studentship – Faculty of Medicine, Scholarship

Funding Sources:

McGill University
Total Funding - 12,000

Principal Applicant Alexander Graham Bell Canada Graduate Scholarship (CGS D), Scholarship

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)
Total Funding - 105,000

2015/9 - 2016/8
Co-applicant Texture Imaging: A novel technique to guide treatment and improve quality of life in patients with Non-Small Cell Lung Carcinoma (NSCLC), Grant

Funding Sources:

Rosy Cancer Network
CQI Research Fund
Total Funding - 25,000

2015/9 - 2016/8
Co-applicant Marching Ahead: Imaging Biomarkers, a new revolution in patient management and care for Human Papilloma Virus (HPV) Positive Oropharyngeal Cancer, Grant

Funding Sources:

Rosy Cancer Network
CQI Research Fund
Total Funding - 25,000

Declined [n=3]

Principal Applicant Studentship – Research Institute, Scholarship

Funding Sources:

McGill University Health Centre (MUHC)
Total Funding - 8,925

Principal Applicant Bourse de formation de doctorat, Scholarship

Funding Sources:

Fonds de recherche du Québec - Santé (FRQS)
Total Funding - 60,000

Principal Applicant Postdoctoral fellowship (PDF), Scholarship

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)
Total Funding - 90,000

Under Review [n=2]

Co-investigator Secure Data Analysis Platform of Sherbrooke (SDAPS): A FAIR and trustworthy way into the future of precision medicine, Grant

Funding Sources:

Canadian Foundation for Innovation
John R. Evans Leaders Fund
Total Funding - 891,328

2020/9 - 2023/8
Co-investigator Modèles de prédiction résilients basés sur l'imagerie quantitative, Grant

Funding Sources:

Fonds Québécois de la Recherche sur la Nature et les Technologies (FQRNT)
Projets de recherche en équipe
Total Funding - 180,000

Courses Taught

- 2019/03/28 , McGill University
Course Title: MDPH 702 – Advanced Topics in Radiation Oncology Physics
Course Level: Graduate
- 2018/04/23 , L'Institut de Recherche en Santé de l'Université de Nantes (IRS-UN)
Course Title: Radiomique en TEP/DM: promesses, limites méthodologiques et perspectives
Course Level: Graduate
- 2016/04/25 , McGill University
Course Title: MDPH 702 – Advanced Topics in Radiation Oncology Physics
Course Level: Graduate

International Collaboration Activities

- 2018/8 Co-leader of the MEDomics consortium, United States
The main motivation of this project is to develop an integrated, end-to-end, fully open-source computation platform for integrative data modeling in oncology: *MEDomicsLab*. During the last year, the initial development of *MEDomicsLab* has been secured by a consortium of four centers: (i) Medical Physics Unit of McGill University (PI: Jan Seuntjens); (ii) University California San Francisco (UCSF, PI: Olivier Morin); (iii) Maastricht University in the Netherlands (PI: Philippe Lambin); and (iv) Oncoray Research group in Germany (PI: Steffen Löck). This collaborative work is currently supported by the internal funds of the four institutions, and the Medical Physics Unit of McGill University is playing a major co-leading role with UCSF in all methodological developments. The official co-leading PIs are Martin Carrier-Vallières (McGill) and Olivier Morin (UCSF).
- 2017/12 Developer of the Radiomics Ontology (IBSI radiomics expert), Netherlands
This is an ongoing collaboration with the research group of André Dekker at the MAASTRO clinic, Maastricht, Netherlands. The major goal of the project is to create a Semantic Web Ontology for Radiomics analyses. Our aim is to properly describe the radiomics computation details of the Image Biomarker Standardisation Initiative (IBSI) and provide a "triple store" (list of subject-predicate-object statements) for researchers to be able to remotely examine and utilize radiomics analyses via SPARQL queries. The current beta version of the ontology is available online: <https://bioportal.bioontology.org/ontologies/RO>
- 2017/7 Radiomics and machine learning expert, France
This is an ongoing collaboration with my former postdoctoral supervisor (Mathieu Hatt) that started in July 2017. The goal of the project is to develop advanced image analysis techniques to combine radiomics methods with convolutional neural networks.
- 2016/9 Co-leader of the Image Biomarker Standardisation Initiative (IBSI), Germany
The Image Biomarker Standardisation Initiative (IBSI) currently regroups approximately 70 scientists from 25 institutions in 8 countries. The major goal of this ongoing initiative is to provide the medical imaging community with standardized methodological guidelines and benchmarks for the computation of radiomic features. I am currently co-leading this initiative with Alex Zwanenburg from the Oncoray Research group in Dresden, Germany.

Presentations

1. (2019). Oral Presentation: "MEDomicsLab: an open-source computation platform for integrative data modeling in medicine". Practical Big Data Workshop 2019 (PBDW 2019), Ann Harbor, United States
2. (2019). Educational Lecture: "Radiomics: the Image Biomarker Standardisation Initiative (IBSI)". The International Conference on the Use of Computers in Radiation Therapy (ICCR 2019), Montreal, Canada
3. (2019). Educational Lecture: "Radiomics: the Image Biomarker Standardisation Initiative (IBSI)". 3rd ESTRO Physics Workshop – Science in development. Session: Multi-source data fusion for decision support systems in radiation oncology: opportunities, methodologies, standardization and clinical translation, Budapest, Hungary
4. (2019). Oral Presentation: "MEDomics: synergie entre analyse d'images médicales, apprentissage automatique, apprentissage profond, traitement automatique des langues naturelles et apprentissage distribué". Séminaire du département de médecine nucléaire et de radiobiologie du Centre Hospitalier Universitaire de Sherbrooke (CHUS), Sherbrooke, Canada
5. (2019). Oral Presentation: "Radiomics: the Image Biomarker Standardisation Initiative (IBSI)". Seminar of the Stanford Center for Biomedical Informatics Research, Palo Alto, United States
6. (2018). Educational Lecture: "Radiomics: the Image Biomarker Standardisation Initiative (IBSI)". Big Data 4 Imaging 2018 Workshop, Masstricht, Netherlands
7. (2018). Educational Lecture: "Introduction to convolutional neural networks (CNNs)". Big Data 4 Imaging 2018 Workshop, Maastricht, Netherlands
8. (2018). Oral Presentation: "Investigating the complementarity of radiomics and clinical information for predicting treatment failure in multiple cancer types". American Association of Physicists in Medicine (AAPM) 60th Annual Meeting, Nashville, United States
9. (2018). Educational Lecture: "Radiomics in MRI: Getting started". Joint annual meeting ISMRM-ESMRMB 2018, Paris, France
10. (2017). Oral Presentation: "Radiomics: Enabling Factors Towards Precision Medicine". RMP Radiomics Symposium Princess Margaret Hospital (PMH), Toronto, Canada
11. (2017). Oral Presentation: "Enhancement of multimodality texture-based prediction models via optimization of PET and MR image acquisition protocols: a proof of concept". Congrès National d'Imagerie du Vivant (CNIV) 2017, Paris, France
12. (2017). Oral Presentation: "IBSI: Current status and beyond". Radiomics Retreat 2017, Clearwater, FL, United States
13. (2016). Oral Presentation: "Analyse texturale pour l'évaluation de l'agressivité des tumeurs". Séminaire du département de radiothérapie du Centre hospitalier de l'Université de Montréal (CHUM), Montréal, Canada
14. (2016). Oral Presentation: "Assessing the risk of tumour recurrences and metastases in head and neck cancer by combining radiomics and clinical variables via imbalance-adjusted machine learning". Radiomics Retreat 2016, Clearwater, FL, United States
15. (2015). Oral Presentation: "Statistical methods for the construction of texture-based prediction models". Radiomics Retreat 2015, Clearwater, FL, United States
16. (2015). Oral Presentation: "Radiomics: Mais Ou Et Donc Car Ni Or (who, what, when, where, when)?". Medical Physics Research Training Network (MPRTN) CREATE: Rising Stars in Medical Physics, Montréal, Canada
17. (2012). Oral Presentation: "Prediction of tumour outcomes by wavelet image fusion and texture analysis". Seminar of the Montreal Neurological Institute (MNI), Montréal, Canada

18. (2012). Oral Presentation: "PET/MR imaging for prediction of tumor outcomes by wavelet image fusion and texture analysis". PET/MR and SPECT/MR: New Paradigms for Combined Modalities in Molecular Imaging Conference (PSMR2012), La Biodola, Elba Island, Italy

Publications

Journal Articles

1. Zwanenburg A*, Vallières M*, Abdalah MA, Aerts HJWL, Andrearczyk V, Apte A, Ashrafinia S, Bakas S, Beukinga RJ, Boellaard R, Bogowicz M, Boldrini L, Buvat I, Cook GJR, Davatzikos C, Depeursinge A, Desseroit M-C, Dinapoli N, Viet Dinh C, Echegaray S, El Naqa I, Fedorov AY, Gatta R, Gillies RJ, Goh V, Guckenberger M, Götz, Ha SM, Hatt M, Isensee F, Lambin P, Leger S, Leijenaar RTH, Lenkiewicz J, Lippert F, Losnegård A, Maier-Hein KH, Morin O, Müller H, Napel S, Nioche C, Orlhac F, Pati S, Pfaehler EAG, Rahmim A, Rao AUK, Scherer J, Siddique MM, Sijtsema NM, Fernandez JS, Spezi E, Steenbakkens RJHM, Tanadini-Lang S, Thorwarth D, Troost EGC, Upadhaya T, Valentini V, van Dijk LV, van Griethuysen J, van Velden FHP, Whybra P, Richter C*, and Löck S*. (2020). The Image Biomarker Standardization Initiative: standardized quantitative radiomics for high-throughput image-based phenotyping. *Radiology*. : N/A.
Accepted
2. Ibrahim A, Vallières M, Woodruff H, Primakov S, Beheshti M, Keek S, Refaee T, Sanduleanu S, Walsh S, Morin O, Lambin P, Hustinx R, Mottaghy FM. (2019). Critical Review: "Radiomics analysis for clinical decision support in nuclear medicine". *Seminars in Nuclear Medicine*. : N/A.
In Press
3. Upadhaya T*, Vallières M*, Chatterjee A, Lucia F, Bonaffini PA, Masson I, Mervoyer A, Reinhold C, Schick U, Seuntjens J, Cheze Le Rest C, Visvikis D, Hatt M. (2019). Original Research: "Comparison of radiomics models built through machine learning in a multicentric context with independent testing: identical data, similar algorithms, different methodologies". *IEEE Transactions on Radiation and Plasma Medical Sciences*. 3(2): 192-200.
Published
4. Nair JR, Vallières M, Mascarella M, Sabbagh EN, Duchatellier CF, Zeitouni A, Shenouda G, Chankowsky J. (2019). Original Research: "MRI texture analysis predicts recurrence in patients with nasopharyngeal carcinoma". *Canadian Association of Radiologists*. : N/A.
In Press
5. Lee I, Wang R, Cai Y, Purkayastha S, Wu J, Chang K, Liu H, Xi X, Vallières M, Huang T, Huang R, States L, Ou J, Zhang P, Yang L, Xiao E, Zhang Z, and Bai HX. (2019). Deep learning to differentiate benign from malignant ovarian lesion based on routine magnetic resonance imaging. *Nature Communications*. : N/A.
Submitted
6. Wei L, Rosen B, Vallières M, Chotchutipan T, Mierzwa M, Eisbruch A, El Naqa I. (2019). Original Research: "Automatic recognition of streak artifacts in head and neck CT region of interest using gradient-based features and impact of streak artifacts for radiomic analysis". *Physics and Imaging in Radiation Oncology*. 10: 49-54.
Published
7. Morin O, Chen WC, Nassiri F, Susko M, Magill ST, Vasudevan HN, Wu A, Vallières M, Gennatas ED, Valdes G, Pekmezci M, Alcaide-Leon P, Choudhury A, Interian Y, Mortezaei S, Turgutlu K, Bush NAO, Solberg TD, Braunstein SE, Sneed PK, Perry A, Zadeh G, McDermott MW, Villanueva-Meyer JE, and Raleigh DR. (2019). Original Research: "Integrated models incorporating radiologic and radiomic features predict meningioma grade, local failure, and overall survival". *Neuro-Oncology Advances*. : N/A.
In Press

8. Bourbonne V, Fournier G, Vallières M, Lucia F, Doucet L, Tissot V, Cuvelier G, Hue S, Le Penn Du H, Perdriel L, Bertrand N, Staroz F, Visvikis D, Pradier O, Hatt M, Schick U. (2019). Original Research: "External validation of an MRI-derived radiomics model to guide post-operative management for high-risk prostate cancer". *Radiology*. : N/A.
Submitted
9. Diamant A, Chatterjee A, Vallières M, Shenouda G, Seuntjens J. (2019). Original Research: "Deep learning in head & neck cancer outcome prediction". *Scientific Reports*. 9: 2764.
Published
10. Avanzo M, Wei L, Stancanello J, Vallières M, Rao A, Morin O, Mattonen S, El Naqa I. (2019). Critical Review: "Machine and deep learning methods for radiomics". *Medical Physics*. : N/A.
In Press
11. Lucia F, Visvikis D, Vallières M, Desseroit M-C, Miranda O, Robin P, Bonaffini PA, Alfieri J, Masson I, Mervoyer A, Reinhold C, Pradier O, Hatt M, Schick U. (2019). Original Research: "External validation of a combined PET and MRI radiomics model for prediction of recurrence in cervical cancer patients treated with chemotherapy". *European Journal of Nuclear Medicine and Molecular*. 46(4): 864-867.
Published
12. Chatterjee A, Vallières M, Dohan A, Levesque IR, Ueno Y, Bist V, Saif S, Reinhold C, Seuntjens J. (2019). Original Research: "An empirical approach for avoiding false discoveries when applying high-dimensional radiomics to small datasets". *IEEE Transactions on Radiation and Plasma Medical Sciences*. : 201-209.
Published
13. Zhou H, Chang K, Bai HX, Xiao B, Su C, Bi WL, Zhang PJ, Senders JT, Vallières M, Kavouridis VK, Boaro A, Arnaout O, Yang L, Huang RY. (2019). Original Research: "Machine learning reveals multimodal MRI patterns predictive of isocitrate dehydrogenase and 1p/19q status in diffuse low- and high-grade gliomas". *Journal of Neuro-Oncology*. 142(2): 299-307.
Published
14. Bourbonne V, Vallières M, Lucia F, Doucet L, Visvikis D, Tissot V, Pradier O, Hatt M, and Schick U. (2019). Original Research: "MRI-derived radiomics to guide post-operative management for high-risk prostate cancer". *Frontiers in Oncology*. 9: 807.
Published
15. Chatterjee A, Vallières M, Dohan A, Levesque IR, Ueno Y, Bist V, Saif S, Reinhold C, Seuntjens J. (2019). Original Research: "Creating robust predictive radiomic models for data from independent institutions using normalization". *IEEE Transactions on Radiation and Plasma Medical Sciences*. 3(2): 210-215.
Published
16. Vallières M, Serban M, Benzyane I, Ahmed Z, Xing S, El Naqa I, Levesque IR, Seuntjens J, Freeman CR. (2018). Original Research: "Investigating the role of functional imaging in the management of soft-tissue sarcomas of the extremities". *Physics and Imaging in Radiation Oncology*. 6: 53-60.
Published
17. Morin O, Vallières M, Jochems A, Woodruff HC, Valdes G, Braunstein SE, Wildberger JE, Villanueva-Meyer JE, Kearney V, Yom SS, Solberg TD, Lambin P. (2018). Critical Review: "A deep look into the future of quantitative imaging in oncology: a statement of working principles and proposal for change". *International Journal of Radiation Oncology • Biology • Physics*. : S0360-3016(18)33638.
Published
18. Vallières M, Zwanenburg A, Badic B, Cheze Le Rest C, Visvikis D, Hatt M. (2018). Editorial: "Responsible radiomics research for faster clinical translation". *Journal of Nuclear Medicine*. 59(2): 189-193.
Published
19. Vallières M, Laberge S, Diamant A, El Naqa I. (2017). Original Research: "Enhancement of multimodality texture-based prediction models via optimization of PET and MR image acquisition protocols: a proof of concept". *Physics in Medicine and Biology*. 62(22): 8536-8565.
Published

20. Vallières M, Kay-Rivest E, Jean Perrin L, Liem X, Furstoss C, Aerts HJWL, Khaouam N, Nguyen-Tan PF, Wang C-S, Sultanem K, Seuntjens J, El Naqa I. (2017). Original Research: "Radiomics strategies for risk assessment of tumour failure in head-and-neck cancer". *Scientific Reports*. 7: 10117.
Published
21. Zhou H*, Vallières M*, Bai HX, Su C, Tang H, Oldridge D, Zhang Z, Xiao B, Liao W, Tao Y, Zhou J, Zhang P, Yang L. (2017). Original Research: "MR imaging features predict survival and molecular markers in diffuse lower-grade gliomas". *Neuro-Oncology*. 19(6): 862-870.
Published
22. Vallières M, Freeman CR, Skamene SR, El Naqa I. (2015). Original Research: "A radiomics model from joint FDG-PET and MRI texture features for the prediction of lung metastases in soft-tissue sarcomas of the extremities". *Physics in Medicine and Biology*. 60(14): 5471-5496.
Published
23. Hatt M, Majdoub M*, Vallières M*, Tixier F, Cheze Le Rest C, GroheuxD, Hindié E, Martineau A, Pradier O, Hustinx R, Perdrisot R, Guillevin R, El Naqa I, Visvikis D. (2015). Original Research: "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". *Journal of Nuclear Medicine*. 56(1): 38-44.
Published
24. Rivard M, Laliberté M, Bertrand-Grenier A, Harnagea C, Pfeffer CP, Vallières M, St-Pierre Y, Pigolet A, Khakani MAE, Légaré F. (2011). Original Research: "The structural origin of second harmonic generation in fascia". *Biomedical Optics Express*. 2(1): 26-36.
Published
25. Harnagea C, Vallières M, Pfeffer CP, Wu D, Olsen BR, Pigolet A, Légaré F, Gruverman A. (2010). Original Research: "Two-dimensional nanoscale structural and functional imaging in individual collagen type-I fibrils". *Biophysical Journal*. 98(12): 3070-3077.
Published
26. Patskovsky S, Vallières M, Maisonneuve M, Song I-H, Meunier M, Kabashin AV. (2009). Original Research: "Designing efficient zero calibration point for phase-sensitive surface plasmon resonance biosensing". *Optics Express*. 17(4): 2255-2263.
Published

Working Papers

1. (Zwanenburg A, Leger S, Vallières M, Löck S). (2016). Image biomarker standardisation initiative. : 123.

Conference Publications

1. Vallières M, Chatterjee A, Lucia F, Bourbonne V, Bonaffini P, Masson I, Mervoyers A, Reinhold C, Visvikis D, Schick U, Seuntjens J, Morin O, Hatt M. (2018). Investigating the complementarity of radiomics and clinical information for predicting treatment failure in multiple cancer types. *Medical Physics*. American Association of Physicists in Medicine (AAPM) 60th Annual Meeting (E679),
In Press
2. Vallières M, Visvikis D, Hatt M. (2018). Dependency of a validated radiomics signature and potential corrections. *Journal of Nuclear Medicine*. Society of Nuclear Medicine and Molecular Imaging (SNMMI) 2018 Annual Meeting (640),
In Press

3. Vallières M, Freeman CR, Ahmed Z, Turcotte R, Hickeson M, Skamene S, Jeyaseelan K, Hathout L, Serban M, Xing S, Powell TI, Seuntjens J, Levesque IR, El Naqa I. (2015). Early assessment of tumor aggressiveness using joint FDG-PET/MRI textural features: prediction of prospective cohort and potential improvements using hypoxia and perfusion biomarkers. *International Journal of Radiation Oncology Biology Physics*. American Society for Radiation Oncology (ASTRO) 57th Annual Meeting (S6), Published
4. Vallières M, Boustead A, Laberge S, Levesque IR, El Naqa I. (2015). A machine learning approach for creating texture-preserved MRI tumor models from clinical sequences. *Medical Physics*. American Association of Physicists in Medicine (AAPM) 57th Annual Meeting (3323-3324), Published
5. Vallières M, Freeman CR, Skamene S, El Naqa I. (2014). Early assessment of tumor aggressiveness using joint FDG-PET/MR textural features. *International Journal of Radiation Oncology Biology Physics*. American Society for Radiation Oncology (ASTRO) 56th Annual Meeting (S6-S7), Published
6. Vallières M, Laberge S, Levesque IR, El Naqa I. (2014). Enhancement of texture-based metastasis prediction models via the optimization of PET/MRI acquisition protocols. *Medical Physics*. American Association of Physicists in Medicine (AAPM) 56th Annual Meeting (434-435), Published
7. Vallières M, Kumar A, Sultanem K, El Naqa I. (2013). FDG-PET Image-derived features can determine HPV status in head and neck cancer. *International Journal of Radiation Oncology Biology Physics*. American Society for Radiation Oncology (ASTRO) 55th Annual Meeting (S467), Published
8. Vallières M, Freeman C, Skamene S, El Naqa I. (2013). Joint FDG-PET/MR imaging for the early prediction of tumor outcomes. *Medical Physics*. American Association of Physicists in Medicine (AAPM) 55th Annual Meeting (477), Published
9. Vallières M, Kumar A, Sultanem K, El Naqa I. (2013). FDG-PET imaging features can predict treatment outcomes in head and neck cancer. *Medical Physics*. American Association of Physicists in Medicine (AAPM) 55th Annual Meeting (519), Published
10. Vallières M, Freeman CR, Skamene SR, El Naqa I. (2012). FDG-PET features and outcomes in soft-tissue sarcomas of the extremities. *International Journal of Radiation Oncology Biology Physics*. American Society for Radiation Oncology (ASTRO) 54th Annual Meeting (S167-S168), Published
11. Vallières M, Freeman CR, Skamene SR, El Naqa I. (2012). Prediction of tumor outcomes through wavelet image fusion and texture analysis of PET/MR imaging. *Medical Physics*. American Association of Physicists in Medicine (AAPM) 54th Annual Meeting (3615), Published