Caroline Dallaire-Théroux, MD, PhD

Curriculum Vitae

Position: Clinical and Research Fellow, Neurologist

EDUCATION

Research and Clinical Fellowship in Cognitive Neurosciences, University of Calgary 2026-2028

Clinician Investigator Program, Université Laval 2019-2026

Postdoctoral Medical Studies in Neurology, Université Laval 2019-2025

Doctor of Philosophy in Neuroscience (Ph.D.) – Honour Roll with Distinction, Université Laval 2017-2023

Master of Science in Neuroscience (accelerated track to Ph.D.), Université Laval 2016-2017

Doctor of Medicine (M.D.), Université Laval 2013-2019

College Studies in Natural Sciences (D.E.C.), Cégep de Ste-Foy 2011-2013

International Baccalaureate (I.B.), De Rochebelle's High School 2006-2011

ACADEMIC EXPERIENCE

Research experience:

Postdoctoral Fellow 2024-2026
CHU de Québec Research Center, under the supervision of Pr Frédéric Calon
Project: Role of Placental Growth Factor (PlGF) and Growth and Differentiation Factor 15 (GDF15) as potential biomarkers of the vascular contribution to cognitive impairment associated with Alzheimer's disease

Research Intern 2024-2026
Department of Neurological Sciences, under the supervision of Dr Steve Verreault
Project: Clinico-radiological characterization of cerebral small vessel disease associated with Chronic Atrial and Intestinal Dysrhythmia syndrome (CAID)

Research Intern Spring 2024
eVIDA Lab – University of Deusto (Bilbao), under the supervision of Pr Begonya Garcia-Zapirain
Project: Deep learning-based assessment of cerebral small vessel disease lesions from digitalized brain specimens

Physician Evaluator 2022-2024
Interdisciplinary Memory Clinic of the CHU de Québec, under the supervision of Dr Robert Jr Laforce
Project: Amyloid and glucose PET imaging in Alzheimer and vascular cognitive impairment patients with significant white matter disease (MITNEC C6)

Physician Evaluator 2020-2024
CERVO Brain Research Center, under the supervision of Dr Sylvie Rheault
Project: Consortium for the Early Identification of Alzheimer's Disease – Quebec (CIMA-Q)

Research Intern Summer 2021
University of Edinburgh, under the supervision of Dr Colin Smith (neuropathologist)
Project: In vivo MRI correlation of cerebral small vessel disease histological lesions

M.Sc./Ph.D. Student 2016-2021
CERVO Brain Research Center, under the supervision of Pr Simon Duchesne
Project: Radiological-histological characterization of normal versus pathological brain aging

Research Assistant 2017-2020
Interdisciplinary Memory Clinic of the CHU de Québec, under the supervision of Dr Robert Jr Laforce

Project: Molecular imaging in atypical dementias; Tau PET imaging in myotonic dystrophy type 1

Research Assistant 2016-2017
Faculty of Medicine of Université Laval, under the supervision of Pr Denis Goulet
Project: History of the Faculty of Medicine of Université Laval from 1852 to 2017

IFMSA Research Intern Summer 2016
Brain & Mind Laboratory, National Taiwan University, under the supervision of Pr Joshua Goh
Project: Identifying brain-imaging correlates of normal vs. pathological aging in pre-clinical older adults

Research Intern Summer 2015
Institut Universitaire en Santé Mentale de Québec, under the supervision of Pr Simon Duchesne
Project: Radiological-pathological correlations in Alzheimer's disease using in vivo MRI metrics

SARROS Research Intern Summer 2014
CSSS de la Vallée-de-l'Or, under the supervision of Dr Stanislav Drachek
Project: Urinary tract infections and local antibiotic resistance in the Val-d'Or population

Other Academic Experiences:

Co-Chair, Vascular Training (VAST) Platform Student Committee, University of Calgary 2025-2026

Scientific Reviewer, *Scientific Reports*, *Nature*, *Neurology*, *Stroke* and *Alzheimer's & Dementia* 2017–2026

Student Representative, Clinician Investigator Program Committee, Université Laval 2022–2025

Doctoral Thesis Examiner, Australian National University Summer 2024

External Member, Competency Committee for the Hemato-Oncology Program, Université Laval 2020–2024

Invited Lecturer, "Neurocognitive Disorders" course, Université du Québec à Rimouski 2022–2023

Associate Editor, *Journal of Alzheimer's Disease* 2018–2022

Teaching Assistant, "Clinical Reasoning 3 – Part 1" course, Faculty of Medicine, Université Laval Fall 2021

Teaching Assistant, "Critical Appraisal" course for Internal Medicine Residents, Université Laval Summer 2021

Coordinator for Basic Sciences and Neurology Journal Clubs, Hôpital de l'Enfant-Jésus 2021

Instructor, "Neuroradiology" course for Visiting Residents, Hôpital de l'Enfant-Jésus 2021

Instructor, "Neurological Examination" course for Visiting Residents, Hôpital de l'Enfant-Jésus 2020

Communications Coordinator, Cerveau en tête – Québec 2016–2019

Co-organizer, 6th and 7th CINQ Scientific Days 2017–2018

Science Communicator, *Cerveau à la folie* Exhibition, Musée de la civilisation de Québec 2018

Clinical Neurology Intern, Interdisciplinary Memory Clinic of the CHU de Québec 2017

Editorial Board Member, *Petit Guide des Habiletés Cliniques* 2016–2018

Instructor and Evaluator, Clinical Skills Development Group 2016–2017

International Health Intern, Mother Kevin Health Center, Kenya 2015

EMPLOYMENT

Pharmacy Technical Assistant, Familiprix Hébert & Ferlatte 2013-2016

Supervisor and Cashier, Metro Plus Laurent Lindsay 2010-2013

Dance Teacher, De Rochebelle's High School 2009-2011

VOLUNTEERING

Reception and Parking Attendant, Festival d'Été de Québec 2017

Assistant for Persons with Reduced Mobility, Festival d'Été de Québec 2016

Humanitarian Project on the Prevention of Child Burns, Mother Kevin Health Center, Kenya 2015

Organizer of "Récup' Ta Mode" Dance-Fashion Parade, FEMSI 2014–2015

Barista, Student Café l'Exocytose 2015

Sexual Health Awareness Presenter in High Schools, Sexperts Committee 2013–2014

Mental Health Awareness Presenter in High Schools, Osmose Committee 2013–2014

Supervisor for the Multiple Mini Interviews for Medical School Admissions, Université Laval 2014

Spanish Teacher for Seniors, Maison Omer-Juneau, Saint-Augustin 2013

Hip-Hop Dance Teacher, De Rochebelle's High School 2007–2011

Organizer of "Rochebelle's Best Dance Crew" Dance Show, De Rochebelle's High School 2009–2010

Reception and Service Assistant, Community Kitchen of Seville (Spain) 2010

Sorting and Customer Service Assistant, Présence-Famille Thrift Store 2005–2008

Supervisor for the International Education Program Entrance Exams, De Rochebelle's High School 2007

Environmental Protection Ambassador, Action Planète Committee, De Rochebelle's High School 2006–2007

SCHOLARSHIPS, AWARDS AND HONORS

2026

- **Canada Postdoctoral Research Award (CPRA)**, CIHR ($70,000/year for 2 years)
- **Alzheimer's Society Research Program Postdoctoral Award**, Alzheimer Society of Canada ($10,00 top-up)
- **CCNA Subspecialty Fellowship Award**, Canadian Consortium on Neurodegeneration in Aging ($21,000)
- **Dean's McLaughlin Scholarship (with Distinction)**, Université Laval Faculty of Medicine ($5,000)
- **Postdoctoral Fellowship Award**, Heart & Stroke Foundation of Canada ($70,000; declined)

2025

- **Best Poster Presentation Award**, Clinician Investigator Seminar 2025, Université de Montréal ($250)
- **Postdoctoral Fellowship Award**, Vascular Training (VAST) Platform ($35,000)
- **Resident Research Award**, Department of Medicine, Université Laval ($500)

2024

- **Nomination – Gala des Découvertes: Star Student**, CHU de Québec – Université Laval Research Center
- **Best Oral Presentation (2nd place)** – *My Thesis in 180 Seconds*, Université Laval Clinician-Scientist Program
- **Postdoctoral Fellowship**, Lemaire Family Foundation / CIMA-Q ($40,000)
- **Clinical Research Grant**, CHU de Québec – Université Laval Research Center ($6,000)
- **Travel Award for Training**, Quebec Bio-Imaging Network ($3,000)
- **Conference Grant – VAST 2024**, Vascular Training (VAST) Platform ($1,000)

2023

- **Phase 1 Clinician-Scientist Training Award – 1st Place**, FRQS/MSSS *(RAMQ salary support for 2 years)*
- **Excellence Scholarship – Clinician-Scientist Resident**, CHU de Québec Research Center ($5,000)
- **Research Distinction Award for First-Author Publication**, Université Laval Department of Medicine ($1,000)
- **Conference Grant – VAST 2023**, Vascular Training (VAST) Platform ($500)
- **Best Oral Presentation Award**, Université Laval Neurology Residency Program ($500)
- **Doctoral Completion Scholarship**, Université Laval ($5,000)

2022

- **Resident Research Award**, Department of Medicine, Université Laval ($500)
- **Scholarship**, Professionals' Financial Group ($4,500)
- **Clinical Research Grant**, Sustainable Health Scholarship Fund, Université Laval ($2,000)

2020

- **Interdisciplinary Trainee Research Innovation Challenge (iTRIC) Award**, CCNA ($10,000)
- **Michael Smith Foreign Study Supplement**, Canadian Institutes of Health Research (CIHR) ($4,875)

2019

- **Nomination – Society, Communication, and Education Award**, *Cerveau en tête – Québec*, Forces AVENIR
- **Nomination – Knowledge Communication Award**, *Cerveau en tête – Québec*, Université Laval Student Life Gala

2018

- **Frederick Banting and Charles Best Canada Graduate Scholarship**, CIHR ($35,000/year for 3 years)
- **M.D.-Ph.D. Training Award**, Fonds de recherche du Québec – Santé (FRQS) ($21,000/year for 3 years; declined)
- **Dr. and Mrs. Spatz Doctoral Award – 1st Place**, Alzheimer Society of Canada ($22,000/year for 3 years; declined)
- **Alzheimer's Disease and Related Disorders Research Grant**, Lemaire Family Foundation ($25,000)
- **Society, Communication, and Education Award**, *Cerveau en tête – Québec*, Forces AVENIR ($2,000)
- **Knowledge Communication Award**, *Cerveau en tête – Québec*, Université Laval Student Life Gala ($600)
- **Excellence Award – Best Oral Presentation**, Quebec Network for Research on Aging ($800)
- **Excellence Award**, Student Researcher Association, Faculty of Medicine ($500)
- **Excellence Award – Best Scientific Poster**, 5th Neurology Student Symposium ($30)

2017

- **Canadian Medical Hall of Fame Award**, Université Laval Faculty of Medicine ($5,000)
- **Pierre J. Durand Doctoral Recruitment Scholarship**, Université Laval Faculty of Medicine ($10,000)
- **Best Graduate Poster Presentation**, 6th CINQ Scientific Day ($250)
- **Engagement Award – "Tu bouges, ça nous intéresse!" Contest**, Desjardins Movement ($500)
- **Conference Grant**, Society for Neuroscience of Quebec, Canadian Association for Neuroscience ($200)

2016

- **Wilbrod-Bherer Master's Recruitment Scholarship**, Université Laval Faculty of Medicine ($7,500)
- **Social and Humanitarian Leadership Award**, Sustainable Health Scholarship Fund, Université Laval ($10,000)

- **Science Popularization Award**, Association francophone pour le savoir (Acfas) ($1,250)

2015

- **International Mobility Scholarship**, LOJIQ & International Bureau ($3,108)
- **Project Award – "Tu bouges, ça nous intéresse!" Contest**, Desjardins Movement ($1,000)

2014

- **SARROS Clinical Internship Scholarship**, SARROS Program ($3,500)

PUBLICATIONS

Peer-Reviewed Articles:

Cottez R, Peyrot C, Denis HL, Tremblay C, Loiselle A, **Dallaire-Théroux C**, Filali-Mouhim A, Hébert S, Leclerc N, Blennow K, Zetterberg H, Consortium for the Early Identification of Alzheimer's Disease – Quebec (CIMA-Q), Kergoat MJ, Calon F, Pichet Binette A (2026). Plasma p-tau markers, vascular factors and cognitive decline in the CIMA-Q cohort – *Accepted (May 2026)*.

- Contribution: 10% (design, interpretation of results, critical review).
- Impact and Importance: To evaluate the predictive value of plasma p-tau biomarkers and vascular risk factors on both clinical progression and cognitive decline along the AD continuum.

Dallaire-Théroux C, Smith C. Mapping the Invisible: How Cerebral Vascular Phenotypes Shape Cognitive Aging. Stroke. 2026 Apr;57(4):968-969. doi: 10.1161/STROKEAHA.126.055316. Epub 2026 Mar 23. PMID: 41871192.

- Contribution: 70% (critical appraisal, expert opinion, and writing).
- Impact and Importance: Invited Editorial – To provide perspective in the field of neuropathology of vascular cognitive impairment, in response to an accepted article entitled "*Microvascular and macrovascular cerebral disease profiles and their association with cognitive abilities*".

Dallaire-Théroux C, Denis HL, Cottez R, Tremblay C, Provencher A, Escalera JV, Leclerc M, Loiselle A, Tournissac M, Belleville S, Gangloff A, Picard F, Zetterberg H, Potvin O, Consortium for the Early Identification of Alzheimer's Disease – Quebec (CIMA-Q), Calon F (2025). Distinct alterations of adiponectin, fibroblast growth factor 21 (FGF-21), and insulin-like growth factor binding protein 2 (IGFBP-2) link dysmetabolism with cognitive decline across the Alzheimer's disease spectrum. Alzheimer's & Dementia, 2026 Feb;22(2):e71097. doi: 10.1002/alz.71097. PMID: 41630588; PMCID: PMC12865228.

- Contribution: 40% (statistical analyses, interpretation of results, and writing).
- Impact and Importance: To evaluate the association between cognitive impairment related to Alzheimer's disease and markers of metabolic dysfunction in order to identify new accessible therapeutic targets.

Phelps J, Norman M, Dompé B, Monaghan J, Becker S, Aiken C, Grossman L, Payne JW, Oleksiuk C, Cheema S, Leamon T, Drozdowska B, Guan DX, Betzner W, Arellano F, Breslin L, **Dallaire-Théroux C**, Detcheverry FE, Diany R, Gagliano Taliun SA, Gawryluk J, Hirai S, Ilie A, Kwan H, Maclean D, Rajabli R, Soleymani S, Soltaninejad M, Tarek MA, Snowball E, Bethell J, Nielssen I, Badhwar A, Mazerolle EL, Smith EE (2025). Engaging persons with lived experience to co-develop and qualitatively evaluate educational videos about vascular cognitive impairment. Dementia – *Revised Manuscript Submitted (December 2025)*.

- Contribution: 5% (video screening, selection and data extraction).
- Impact and Importance: To enhance public accessibility to information about vascular dementia and to develop adapted educational resources for use with patients and caregivers in clinical settings.

Ulugut H, Younes K, Montembeault M, Bertoux M, Irish M, Kumfor F, Fumagalli GG, Samanci B, Illán-Gala I, Thompson JC, Santillo AF, Englund E, Landqvist Waldö M, Riedl L, Van den Stock J, Vandenbulcke M, Vandenberghe R, Laforce R Jr, Ducharme S, Pressman PS, Caramelli P, Cruz de Souza L, Takada LT, Gurvit H, Diehl-Schmid J, Galimberti D, Pasquier F, Weintraub S, Miller BL, Sturm VE, Whitwell JL, Boeve B, Rohrer JD, Piguet O, Gorno-Tempini ML, Josephs KA, Snowden J, Rowe JB, Warren JD, Rankin KP, Pijnenburg YAL; International rtvFTD working group*. Clinical recognition of frontotemporal dementia with right temporal predominance: a consensus statement from the International Working Group. Commun Med (Lond). 2025 Dec 12;5(1):523. doi: 10.1038/s43856-025-01252-4. PMID: 41387629; PMCID: PMC12700944.
*__Dallaire-Théroux C__ is part of the International rtvFTD Working Group.

- Contribution: <5% (medical file revision and data collection of rtvFTD patients from Quebec)

- Impact and Importance: To provide the first international consensus defining the clinical profile and standardized nomenclature of right anterior temporal lobe–predominant frontotemporal dementia, thereby improving diagnostic precision, reducing misdiagnosis, and laying a foundation for more appropriate clinical management and targeted therapeutic development.

Phelps J, Singh M, McCreary CR, **Dallaire-Théroux C**, Stein R, Potvin-Jutras Z, Guan DX, Wu JD, Metz A, Smith EE (2025). Cerebral small vessel disease lesion segmentation methods: A Systematic Review. Cereb Circ Cogn Behav. 2025 Sep 19;9:100396. doi: 10.1016/j.cccb.2025.100396. PMID: 41080650; PMCID: PMC12513155.

- Contribution: 5% (title and full-text screening, article selection).
- Impact and Importance: To review available MRI-based tools for the segmentation of cerebrovascular lesions in order to facilitate research in the field of vascular cognitive impairment.

Wu F, **Dallaire-Théroux C**, Michaud É, Bergeron F, Lavoie M, Soucy JP, Dirani A, Laforce RJ. Diagnosing neurodegenerative disorders using retina as an external window: A systematic review of OCT-MRI correlations. J Alzheimers Dis. 2025 Apr 21:13872877251331231. doi: 10.1177/13872877251331231. Epub ahead of print. PMID: 40255034.

- Contribution: 25% (development of search strategy, article selection, data extraction, risk of bias assessment, preparation of figures and tables, interpretation of results, and writing).
- Impact and Importance: To explore the potential of using OCT to screen for neurodegenerative diseases in a non-invasive and cost-effective manner and to establish the foundation for the development of novel retinal biomarkers in the context of cognitive disorders.

Dallaire-Théroux C, Smith C, Duchesne S (2023). Clinical predictors of post-mortem amyloid and non-amyloid cerebral small vessel disease in middle-aged to older adults. Neurology: Clinical Practice, 2024 Jun;14(3):e200271. doi: 10.1212/CPJ.0000000000200271. Epub 2024 Mar 21. PMID: 38525067.

- Contribution: 90% (project development, participant selection, histopathological reading and grading, statistical analyses, preparation of tables and figures, interpretation of results, and writing).
- Impact and Importance: To identify the clinical risk factors most strongly associated with the development of pathology-confirmed cerebral small vessel diseases, with the aim of enabling their detection and intervention in vivo.

Laforce R Jr, **Dallaire-Théroux C**, Racine AM, Dent G, Salinas-Valenzuela C, Poulin E, Cayer AM, Bédard-Tremblay D, Rouleau-Bonenfant T, St-Onge F, Schraen-Maschke S, Beauregard JM, Sergent N, Puymirat J (2022). Tau PET, CSF and plasma biomarkers of neurodegeneration, and neurocognitive testing: An exploratory study of participants with myotonic dystrophy type 1. Journal of Neurology, 2022 Feb 1. doi: 10.1007/s00415-022-10970-x. Epub ahead of print. PMID: 35103843.

- Contribution: 25% (participant selection, clinical assessment and data collection, and writing).
- Impact and Importance: To better characterize the role of tau pathology in myotonic dystrophy type 1, a multisystem disorder that could significantly benefit from novel therapeutic strategies aimed at improving patients' quality of life and overall health status.

Dallaire-Théroux C, Saikali S, Richer M, Potvin O, Duchesne S (2022). Histopathological Analysis of Cerebrovascular Lesions Associated with Aging. Journal of Neuropathology & Experimental Neurology, 81(2):97-105.

- Contribution: 80% (project development, participant selection, grading scale development based on literature, histopathological reading and grading, statistical analyses, preparation of tables and figures, interpretation of results, and writing).
- Impact and Importance: This study has contributed to the development of a validated comprehensive cerebrovascular pathology grading scale for application in clinical and research contexts. It has also enabled the establishment of age-based normative data for cerebrovascular disease in adults.

Dallaire-Théroux C, Quesnel-Olivo MH, Brochu K, Bergeron F, O'Connor S, Turgeon AF, Laforce R Jr, Verreault S, Camden MC, Duchesne S (2021). Evaluation of Intensive vs Standard Blood Pressure Reduction and Association With Cognitive Decline and Dementia: A Sytematic Review and Meta-Analysis. JAMA Network Open, 4(11):e2134553.

- Contribution: 70% (development of search strategy, article selection, data extraction, risk of bias assessment, preparation of figures and tables, interpretation of results, and writing)
- Impact and Importance: This study aimed to clarify the optimal blood pressure targets for preventing cognitive decline. It confirmed the superiority of intensive blood pressure targets for the prevention of cerebrovascular events. As a systematic review and meta-analysis conducted using Cochrane methodology, it provides the highest level of evidence available to date on this topic. Notably, the findings were published in a clinically-oriented high–impact factor journal.

Ducharme S, Dols A, Laforce R, Devenney E, Kumfor F, van den Stock J, **Dallaire-Théroux C**, Seelaar H, Gossink F, Vijverberg E, Huey E, Vandenbulcke M, Masellis M, Trieu C, Onyike C, Caramelli P, de Souza LC, Santillo A, Waldö ML, Landin-Romero R, Piguet O, Kelso W, Eratne D, Velakoulis D, Ikeda M, Perry D, Pressman P, Boeve B, Vandenberghe R, Mendez M, Azuar C, Levy R, Le Ber I, Baez S, Lerner A, Ellajosyula R, Pasquier F, Galimberti D, Scarpini E, van Swieten J, Hornberger M, Rosen H, Hodges J, Diehl-Schmid J, Pijnenburg Y (2020). Recommandations to distinguish behavioral variant frontotemporal dementia from psychiatric disorders. Brain, 143(6), p.1632-1650.

- Contribution: 5% (title and full-text screening, article selection, data collection, and writing)
- Impact and Importance: This study represents an important milestone that enhances the clinical recognition of behavioral variant frontotemporal dementia, a complex and often underdiagnosed disorder, by providing clear tools to differentiate it from psychiatric conditions. This has a direct impact on the quality of diagnoses, therapeutic decisions, and ultimately on the lives of patients and their families.

St-Onge F, Coulombe V, Meilleur-Durand S, Lévesque M, **Dallaire-Théroux C**, Sellami L, Paquette Raynard E, Laforce R Jr (2019). Imaging characteristics of pre-symptomatic familial frontotemporal dementia: A systematic review. *Publié sur Prospero*.

- Contribution: 15% (development of search strategy, article selection, data extraction, risk of bias assessment, and writing)
- Impact and Importance: This systematic review is a foundational contribution that enhances early detection strategies for familial frontotemporal dementia through neuroimaging, paving the way for improved patient outcomes and therapeutic development.

Dallaire-Théroux C, Beheshti I, Potvin O, Dieumegarde L, Saikali S, Duchesne S, Alzheimer's Disease Neuroimaging Initiative (2019). Braak neurofibrillary tangle staging prediction from in vivo MRI metrics. Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring, 11, p.599-609.

- Contribution: 80% (project development, data selection, image quality control, statistical analyses, interpretation of results, and writing).
- Impact and Importance: This study provides a valuable tool for non-invasive assessment of tau pathology progression in Alzheimer's disease, bridging the gap between imaging and neuropathology, and paving the way for improved diagnosis, monitoring, and treatment.

Laforce R Jr, Soucy JP, Sellami L, **Dallaire-Théroux C**, Brunet F, Bergeron D, Miller BL, Ossenkoppele R (2018). Molecular imaging in dementia: Past, present and future. Alzheimer's and Dementia, 14(11), p.1522-1552.

- Contribution: 15% (title and full-text screening, article selection, data collection, and writing)
- Impact and Importance: this comprehensive review not only consolidates current knowledge but also charts a roadmap for how molecular imaging can revolutionize dementia care and research. Its insights support a future where early, accurate diagnosis and personalized treatment strategies become the norm, significantly impacting patient outcomes and the development of effective therapies.

Girard H, Potvin O, Nugent S, **Dallaire-Théroux C**, Cunnane S, Duchesne S (2018). Faster progression from MCI to probable AD for carriers of a single-nucleotide polymorphism associated with type 2 diabetes. Neurobiology of Aging, 64, p.157.e11-p.157.e17.

- Contribution: 10% (literature review and writing)
- Impact and Importance: This study identifies a specific single-nucleotide polymorphism (SNP) linked to type 2 diabetes that accelerates progression from mild cognitive impairment (MCI) to probable Alzheimer's disease (AD). By highlighting a genetic risk factor connecting metabolic dysfunction and AD, the findings improve understanding of disease mechanisms and may guide personalized risk assessment and early intervention strategies.

Dallaire-Théroux C, Callahan BL, Potvin O, Saikali S, Duchesne S (2017). Radiological-Pathological Correlations in Alzheimer's Disease: Systematic Review of Antemortem MRI Findings. Journal of Alzheimer's disease, 57, p.575-601.

- Contribution: 90% (development of search strategy, article selection, data extraction, risk of bias assessment, preparation of figures and tables, interpretation of results, and writing)
- Impact and Importance: This systematic review highlights the correlations between antemortem MRI findings and postmortem pathological changes in Alzheimer's disease, enhancing the validity of MRI as a biomarker. The study improves understanding of how imaging reflects underlying pathology, supporting better diagnosis and monitoring of disease progression in clinical and research settings.

Dallaire-Théroux C (2016). La maladie d'Alzheimer : à la recherche d'un outil de dépistage précoce. Journal Découvrir (Acfas).

- Contribution: 100% (writing)
- Impact and Importance: This science communication article intended for a general audience discusses the urgent need for early screening tools for Alzheimer's disease, emphasizing the importance of timely diagnosis for better patient outcomes. It raises awareness about emerging techniques and challenges in developing accessible, reliable methods for early detection, contributing to ongoing efforts in dementia research and public health.

Book Chapters:

Verret L, **Dallaire-Théroux C** (2021). Chapitre 16 : L'évaluation des troubles cognitifs. Précis pratique de gériatrie Arcand-Hébert, 4e édition, Maloine, 2435 p.

- Contribution: 50% (literature review and writing)
- Impact and Importance: This book chapter provides a practical and comprehensive guide to the assessment of cognitive disorders, specifically tailored for geriatric practice. It serves as an essential resource for healthcare professionals by offering standardized evaluation methods, facilitating early diagnosis, and improving patient management in older adults. Its clear, clinically relevant approach supports better care delivery and promotes consistency in cognitive assessments within geriatric medicine.

Goh JOS, Li CY, Tu YZ, **Dallaire-Théroux C** (2020). Visual Cognition and Culture. Clinical Cultural Neuroscience: An Integrative Approach to Cross-Cultural Neuropsychology, Oxford University Press, 292 p.

- Contribution: 20% (article selection, data extraction, and writing)
- Impact and Importance: This book offers a pioneering exploration of how culture shapes visual cognitive processes. By integrating neuroscience and cultural psychology, it advances understanding of cross-cultural differences in brain function and cognition. This work is crucial for clinicians and researchers aiming to provide culturally sensitive neuropsychological assessments and interventions, ultimately promoting more equitable and effective care across diverse populations.

Allard M, **Dallaire-Théroux C**, Bouhelis N, Dutil-Fafard L, Gauvreau A, Wiseman D (2018). Chapitre de Neurologie. Petit Guide des Habiletés Cliniques, 2e édition, Groupe de Perfectionnement des Habiletés Cliniques.

- Contribution: 20% (team management, choice of pathologies included, literature review, writing, revision and editing)
- Impact and Importance: This chapter serves as a practical and accessible resource for developing clinical skills essential to neurological assessment. It supports medical trainees by providing clear guidance and standardized approaches, thereby improving the accuracy of neurological evaluations and enhancing patient care. Its contribution is valuable for medical education and clinical practice, promoting competence and confidence in neurological examinations.

Collaborations:

Goulet D (2018). Histoire de la Faculté de médecine de l'Université Laval, Éditions Septentrion, 335 p.

COMMUNICATIONS

Oral Presentations:

Comparative plasma biomarker profiles in cerebral amyloid angiopathy: Insights from the COMPASS-ND cohort (2026). **VAST Conference '26**, Vancouver, BC, Canada.

Maladie d'Alzheimer : Facteurs vasculaires et diagnostic (2026). **Scientific Days of the Consortium for Early Identification of Alzheimer's Disease – Quebec (CIMA-Q) 2026**, Montreal, QC, Canada.

Contribution vasculaire aux troubles cognitifs : Focus sur les microangiopathies liées à l'âge (2026). **Geriatric Psychiatry Seminars**, Montreal, QC, Canada.

Revised diagnostic criteria for vascular cognitive impairment and dementia – The VASCOG-2-WSO criteria (2026). **VAST Journal Club**, Canada, *virtual*.

Étude de la dysfonction métabolique et vasculaire grâce aux biomarqueurs sanguins dans la maladie d'Alzheimer (2025). **Journée de la recherche en neurologie 2025**, Quebec City, QC, Canada.

BBB Matters: Uncovering Metabolic and Vascular Dysfunction Through Blood-Based Biomarkers in Alzheimer's Disease (2025). **VAST Summer Symposium 2025**, Calgary, AB, Canada, virtual only.

Démences (a)typiques (2025). **Neurology Academic Tour – Neurosciences Department of the CHU de Québec**, Quebec City, QC, Canada.

Contribution vasculaire aux troubles cognitifs : Focus sur les microangiopathies liées à l'âge (2024). **Quebec Interdisciplinary Memory Clinic (CIME) Seminars**, Quebec City, QC, Canada.

Caractérisation radio-histologique du vieillissement cérébral normal versus pathologique (2024). **Seminars of the Clinician Investigator Program – Université Laval**, Quebec City, QC, Canada.

La chasse à l'amyloïde : une bataille sanglante (2024). **My thesis in 180 seconds – Clinician Investigator Program**, Quebec City, QC, Canada.

Troubles neurocognitifs (2023). **Master of Science in Nursing (Primary Health Care Nurse Practitioner) – Université du Québec à Rimouski (UQAR)**, Rimouski, QC, Canada.

Clinical predictors of post-mortem amyloid and non-amyloid cerebral small vessel disease in middle-aged to older adults (2023). **VAST Conference '23**, Montreal, QC, Canada.

Clinical predictors of post-mortem amyloid and non-amyloid cerebral small vessel disease in middle-aged to older adults (2023). **Annual Research Day of the Neurology Program – Université Laval**, Québec, QC, Canada.

Troubles neurocognitifs (2022). **Master of Science in Nursing (Primary Health Care Nurse Practitioner) – Université du Québec à Rimouski (UQAR)**, Rimouski, QC, Canada.

Early detection of pathological brain aging: What can we learn from histology? (2022). **CHU de Québec Neuroscience Axis Seminars – Recruitment Talk**, Quebec City, QC, Canada.

Approche thérapeutique relative à l'anticoagulothérapie à la suite d'un saignement intracrânien (2022). **Conference of the Quebec Nurse Practitioners Association**, Boucherville, QC, Canada.

Atelier sur l'examen neurologique rapide chez l'adulte (2022). **Conference of the Quebec Nurse Practitioners Association**, Boucherville, QC, Canada.

Effect of intensive blood pressure reduction for the prevention of cognitive decline and dementia: A systematic review and meta-analysis (2022). **American Academy of Neurology Annual Meeting 2022**, Seattle, WA, United States.

MRI and histology assessment of cerebrovascular disease using a novel ex vivo-in situ approach (2020). **Scientific Days of the Canadian Consortium on Neurodegeneration in Aging (CCNA) 2020**, Canada, virtual only.

Prédiction du stade de dégénérescence neurofibrillaire à partir de l'IRM in vivo (2018), **Research Days of the Quebec Research Network on Aging 2018**, Quebec City, QC, Canada.

Antemortem Longitudinal MRI Metrics as a Biomarker of Postmortem Braak NFT Staging (2018), **Alzheimer's Association International Conference 2018**, Chicago, IL, United States.

Poster Presentations:

Comparative Plasma Biomarker Profiles in Cerebral Amyloid Angiopathy: Insights from the COMPASS-ND Cohort (2026). **CCNA's Annual Conference 2026**, Vancouver, BC, Canada – *coming in October 2026*.

Plasma Biomarkers Profiles in CAA: Findings from the COMPASS-ND Cohort (2026). **10th International CAA Conference**, Banff, AB, Canada – *coming in September 2026*.

Serum IGFBP-2 Predicts Faster Cognitive Decline Across the Alzheimer's Disease Spectrum (2026). **Alzheimer's Association International Conference 2026**, London, UK – *coming in July 2026*.

Dysfonction métabolique et vieillissement : Identification de l'IGFBP-2 comme marqueur périphérique de déclin cognitif et neurodégénérescence associés à la maladie d'Alzheimer (2026). **Research Days of the Quebec Research Network on Aging 2026**, Sherbrooke, QC, Canada.

Complex relationship between serum IGFBP-2 and FGF-21, dysmetabolism and cognitive function across the clinical spectrum of Alzheimer's disease (2025). **Clinician Investigator Seminar 2025**, Montreal, QC, Canada.

Diagnosing neurodegenerative disorders using retina as an external window: A systematic review of OCT-MRI correlations (2025). **Alzheimer's Association International Conference 2025**, Toronto, ON, Canada.

Serum placental growth factor as a biomarker of cerebrovascular changes in Alzheimer's disease (2025). **Alzheimer's Association International Conference 2025**, Toronto, ON, Canada.

Serum placental growth factor as a biomarker of cerebrovascular changes in Alzheimer's disease (2025). **Scientific Days of the Consortium for Early Identification of Alzheimer's Disease – Quebec (CIMA-Q) 2025**, Montreal, QC, Canada.

Complex relationship between serum IGFBP-2 and FGF-21, dysmetabolism and cognitive function across the clinical spectrum of Alzheimer's disease (2024). **Alzheimer's Association International Conference 2024**, Philadelphie, United States.

Complex relationship between serum IGFBP-2 and FGF-21, dysmetabolism and cognitive function across the clinical spectrum of Alzheimer's disease (2024). **VAST Conference '24**, Banff, AB, Canada.

Complex relationship between serum IGFBP-2 and FGF-21, dysmetabolism and cognitive function across the clinical spectrum of Alzheimer's disease (2024). **Scientific Days of the Consortium for Early Identification of Alzheimer's Disease – Quebec (CIMA-Q) 2024**, Montreal, QC, Canada.

Effect of intensive blood pressure reduction for the prevention of cognitive decline and dementia: A systematic review and meta-analysis (2022). **5th Quebec Congress on Alzheimer's Disease and Related Disorders**, Quebec City, QC, Canada.

Sex-specific differences in prevalence of cerebrovascular disease lesions (2021). **Scientific Day of the Canadian Consortium on Neurodegeneration in Aging (CCNA) 2021**, Canada, virtual only.

Effect of intensive blood pressure reduction for the prevention of cognitive decline and dementia: A systematic review and meta-analysis (2021). **Alzheimer's Association International Conference 2021**, Denver, CO, United States.

Histopathological assessment and staging of cerebrovascular lesions associated with normal brain aging (2021). **73th American Academy of Neurology Annual Meeting 2021**, virtual only.

MRI and histology assessment of cerebrovascular disease using a novel ex vivo-in situ approach (2020). **Scientific Day of the Canadian Consortium on Neurodegeneration in Aging (CCNA) 2020**, virtual only.

Histopathological assessment and staging of large and small vessel disease associated with normal aging (2020). **Alzheimer's Association International Conference 2020**, Amsterdam, The Netherlands, virtual only.

Braak neurofibrillary tangle staging prediction using in vivo MRI metrics (2020). **72th American Academy of Neurology Annual Meeting**, Toronto, ON, Canada, virtual only.

Histopathological staging of elementary cerebrovascular lesions associated with normal aging (2019). **19th Annual Congress of the Quebec Society for Vascular Sciences**, Quebec City, QC, Canada.

Histopathological staging of salient cerebrovascular lesions associated with normal aging (2019). **Scientific Day of the Canadian Consortium on Neurodegeneration in Aging (CCNA) 2019**, Quebec City, QC, Canada.

Histopathological staging of elementary cerebrovascular lesions associated with normal aging (2019). **10th Canadian Conference on Dementia**, Quebec City, QC, Canada.

PET imaging of tau pathology in myotonic dystrophy type 1: A pilot study (2019). **12th Edition of the International Myotonic Dystrophy Consortium**, Gothenburg, Sweden.

Prédiction du stade de dégénérescence neurofibrillaire à partir de l'IRM in vivo (2018). **4th Quebec Congress on Alzheimer's Disease and Related Disorders**, Laval, QC, Canada.

Mesures longitudinales à l'IRM cérébrale : un biomarqueur potentiel pour la prédiction antemortem du stade de dégénérescence neurofibrillaire associée à la maladie d'Alzheimer (2018). **7th Scientific Day of the Quebec Neuroscience and Mental Health Imaging Consortium (CINQ)**, Quebec City, QC, Canada.

Mesures longitudinales à l'IRM cérébrale : un biomarqueur potentiel pour la prédiction antemortem du stade de dégénérescence neurofibrillaire associée à la maladie d'Alzheimer (2018), **Health Research Days of the Faculty of Medicine 2018**, Université Laval, Quebec City, QC, Canada.

Antemortem Longitudinal MRI Metrics as a Biomarker of Postmortem Braak NFT Staging (2018), **5th Student Neurology Symposium**, Université de Sherbrooke, Sherbrooke, QC, Canada.

In vivo MRI metrics as a tool for early identification and gradation of Alzheimer's disease key neuropathological lesions (2017), **9th Canadian Conference on Dementia**, Toronto, ON, Canada.

Braak neurofibrillary tangle staging prediction in Alzheimer's disease using in vivo MRI metrics (2017). **6th Scientific Day of the Quebec Neuroscience and Mental Health Imaging Consortium (CINQ)**, Quebec City, QC, Canada.

Braak neurofibrillary tangle staging prediction in Alzheimer's disease using in vivo MRI metrics (2017). **11th Annual Congress of the Canadian Association for Neuroscience**, Montreal, QC, Canada.

Braak neurofibrillary tangle staging prediction in Alzheimer's disease using in vivo MRI metrics (2017). **39th International Symposium of the Central Nervous System Research Group**, Montreal, QC, Canada.

Braak neurofibrillary tangle staging prediction in Alzheimer's disease using in vivo MRI metrics (2017). **4th Student Neurology Symposium**, McGill University, Montreal, QC, Canada.

Radiological-Pathological Correlation in Alzheimer's Disease: Antemortem MRI Narrative Review (2016). **Alzheimer's Association International Conference 2016**, Toronto, ON, Canada.

Radiological-Pathological Correlation in Alzheimer's Disease: Antemortem MRI Narrative Review (2016). **5th Scientific Day of the Quebec Neuroscience and Mental Health Imaging Consortium (CINQ)**, Quebec City, QC, Canada.

Radiological-Pathological Correlation in Alzheimer's Disease: Antemortem MRI Narrative Review (2016). **Health Research Days of the Faculty of Medicine 2016**, Quebec City, QC, Canada.

Radiological-Pathological Correlation in Alzheimer's Disease: Antemortem MRI Narrative Review (2016). **3rd Student Neurology Symposium**, Université Laval, Quebec City, QC, Canada.

Summary of Presentations:

	Invited	*Oral*	*Poster*
Within Host Institution	2	6	5
Provincial or Regional Level	7	6	10
National Level	1	5	8
International Level	0	2	12

Supervision of Students:

	Number
Medical Students and Residents	>50
Master's Students	2
Ph.D. Students	3
Postdoctoral Fellows	0