Clara Fonteneau

ASSOCIATE RESEARCH SCIENTIST · CLINICAL AND COMPUTATIONAL NEUROSCIENCE

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Academic Positions

2020 - present — **Associate Research Scientist, Yale University** — *New Haven, USA*

2019 - 2020 — **Post-Doctoral Associate, Yale University**

Division of Neurocognition, Neurocomputation & Neurogenetics (N3)
Integrating Multimodal Imaging: A Path to Identify Individual Differences
Advisors: Drs Anticevic, Cho & Krystal
Projects:

- **Multi-modal PET-MR** methods development and integration within multimodal imaging pipeline (QuNex)
- **Brain-Behavior** multimodal mapping across the mental health spectra (e.g. psychosis, mood spectrum, ptsd)
- Interventional **pharmacological** approaches (Dopamine Receptor Agonist, Ketamine, Psilocybin)

2014-2018 — **PhD in Neuroscience, CRNL / INSERM / CNRS / UCBL1 / CH Le Vinatier** — *Lyon, France*

PSYR2 Team, Centre de Recherche en Neurosciences de Lyon (CRNL)
Impact of a single frontal transcranial direct current stimulation on the dopaminergic network in healthy subjects
Supervisors: Drs M.F. Suaud-Chagny & J. Brunelin
Missions:

- Transcranial stimulation in healthy humans **(tDCS**, **rTMS)**
  - Impact of bifrontal tDCS on the **dopaminergic** transmission using **PET** imaging
  - Neurophysiological impact of fronto-temporal tDCS using a **multimodal PET-MRI** approach (PET dopamine, fMRI, ASL, DWI)
- Pathophysiology and transcranial stimulation in patients with schizophrenia: **DWI, MRS** and **IRMf** data analysis (Impact of transcranial stimulation on structural (**DWI**) and functional connectivity (**MRS**, rs**-fMRI**) in patients with schizophrenia with and without hallucinations).

2014 (5 months) — **Master Student**, **Centre de Recherche en Neurosciences de Lyon (CRNL)** — *Lyon, France*

DYCOG Team
Mecanisms of attentional preparation in the auditory cortex
Supervisors: Dr A. Bidet-Caulet & Dr O. Bertrand
Missions : Electrophysiological recordings (**intracranial EEG,** evoked potential and time-frequency)

2013 (6 weeks) — **Undergraduate Student, UC Berkeley** — *Berkeley, USA*

Helen Wills Neurosciences Institute
Neurophysiological mechanisms of auditory attention in humans
Supervisors: Pr R. Knight & Dr A. Bidet-Caulet
Missions: Electrophysiological recordings (**scalp EEG**) in patients with frontal lesions and healthy controls

2012 (5 weeks) — **Research Assistant, Centre de Recherche en Neurosciences de Lyon (CRNL)** — *Lyon, France*

DYCOG Team
Attentional preparation and distractibility: a scalp EEG study
Supervisors: Dr A. Bidet-Caulet & Dr O. Bertrand

2011 (2 months) **Research Assistant, Institut des sciences cognitives (ISC)** *Lyon, France*
UMR 5229
Decision making and Reward – An fMRI study
Supervisors: Dr J.C. Dreher

(1 month) **Research Assistant, Centre de Recherche en Neurosciences de Lyon (CRNL)** *Lyon, France*
IMPACT Team
Visuo-spatial representation – Visual attention and Hemineglígence
Supervisors: Dr L. Pisella

Education

Claude Bernard Lyon 1 University, France

2015-2018 **PhD, Neurosciences**
2012-2014 **Master of Science, Neurosciences**
2010-2012 **Bachelor of Science, Biology and Physiology**

Grants

Active

2022-2025 Hyperactivity and Hyperconnectivity as a Neural Marker of Efficacy for Cognitive Deficits in Early-Course Psychosis *Boehringer Ingelheim International, GmbH*
PI: Anticevic
Role: Co-I [Study oversight: regulatory, data management, recruitment and analytics]

2020-2025 5U01MH124639: Psychosis Risk Outcomes Network (Pro-NET) *NIMH*
MPIs: Woods/Anticevic
Role: Co-I [Dataflow infrastructure]

2019-2023 5U01MH121766-02: A Translational and Neurocomputational Evaluation of a D1R Partial Agonist for Schizophrenia (TRANSCENDS) *NIMH*
MPIs: Krystal/Anticevic
Role: Co-I [Study Administrative and Scientific Director]

Pending

2024-2029 Cross-diagnostic mapping of common and distinct brain-symptoms effects across the psychiatric spectrum *NIH/DHHS*
PI: Anticevic
Role: Co-I [Co-developer]

2024-2029 BEEST (Biomarkers to Enhance Early Schizophrenia Treatment) *CAMH (NIH/DHHS)*
PI: Subaward Prime PI
Role: Co-I [Dataflow infrastructure and analytics consultant]

2024-2029 ProCAN: Psychosis Risk Outcomes Compound Assessment Network *NIMH/NIH/DHHS*
PI: Woods
Role: Co-I [Dataflow infrastructure and analytics consultant]

Completed

2015-2018 COMBISTIM *Fondation Neurodis*
PI: Dr Suaud-Chagny
Role: Co-I [Study Lead – PhD project]

2015-2016 DOPASTIM *CSR Le Vinatier*
PI: Dr Brunelin
Role: Co-I [Study Lead – PhD project]

Honors and Awards

2017 **Poster presentation 1st place –** Non Invasive Brain stimulation techniques (NIBS) for psychiatric disorders, Germany
2017 **Young Investigator Travel Award**, 2nd International Brain Stimulation conference, Barcelona, Spain
2015 **Poster presentation 2nd place**, Non-Invasive brain stimulation techniques (NIBS) for psychiatric disorders, Belgium

Publications

Coming Soon

1. **Fonteneau Clara**, Merida Ines, Redouté Jérome, Haesebaert Frédéric, Le Bars Didier, Costes Nicolas, Brunelin Jérome, Suaud-Chagny Marie-Françoise; Neurophysiological impact of a fronto-temporal transcranial direct current stimulation (tDCS) in healthy humans: a simultaneous PET-MR approach. In preparation.
2. Lee Kangjoo+, **Fonteneau Clara+,** Price Ally, Berkovitch Lucie, Ji Jie L, Tamayo Zailyn, Afriyle-Agyemang Yvette, Howell Amber, Repovs Grega, Murray John D, Cho Youngsun, Anticevic Alan. Neuro-behavioral enrichment analysis in psychosis spectrum youth. In preparation. (+co-first authors)
3. **Fonteneau Clara**, Holmes Sophie, DeLorenzo Christine, Krystal John H, Carson Richard E, Esterlis Irina, Anticevic Alan; Ketamine and Depression - a Multimodal PET-MR Imaging Approach. In preparation.
4. Rahmati M, Moujaesa F, Schleiferm C, Ji JL, **Fonteneau C**, Lee K, Tamayo Z, Santamauro N, Repov, G, Fineberg S, Krystal JH, Murray JD, Cho Y, Anticevic A. Effects of NMDA receptor antagonist Ketamine on neural tuning and working memory. Under review by co-authors
5. **Fonteneau Clara**+, Tamayo Zailyn+ et al. [TRANSCENDS Consortium]; Translational Neuroscience & Computational Evaluation of a D1R Partial Agonist for Schizophrenia (TRANSCENDS) – Protocol. Under review by co-authors

Research Articles

1. Berkovitch Lucie, Lee Kangjoo, Ji Jie L., Demšar Jure, Kraljič Aleksij, Matkovič Andraž, Tamayo Zailyn, Murray John D., Repovš Grega, Anticevic Alan+, **Fonteneau Clara+** (2023) A common symptom geometry of mood improvement under sertraline and placebo associated with distinct neural patterns. (+co-last author); bioRxiv.
2. Kangjoo Lee, Jie Lisa Ji, **Fonteneau Clara**, Lucie Berkovitch, Masih Rahmati, Lining Pan, Grega Repovš, John H. Krystal, John D. Murray, Alan Anticevic (2023) Human brain state dynamics reflect individual neuro-phenotypes; bioRxiv 2023.09.18.557763
3. Amber M Howell, Shaun Warrington, **Fonteneau Clara**, Youngsun T. Cho, Stamatios Sotiropoulos, John D Murray, Alan Anticevic (2023) The spatial extent of anatomical connections within the thalamus varies across the cortical hierarchy in humans and macaques; bioRxiv 2023.07.22.550168
4. Cassandra M J Wannan, Barnaby Nelson, Jean Addington, Kelly Allott, Alan Anticevic, Celso Arango, Justin T Baker, Carrie E Bearden, Tashrif Billah, Sylvain Bouix, Matthew R Broome, Kate Buccilli, Kristin S Cadenhead, Monica E Calkins, Tyrone D Cannon, Guillermo Cecci, Eric Yu Hai Chen, Kang Ik K Cho, Jimmy Choi, Scott R Clark, Michael J Coleman, Philippe Conus, Cheryl M Corcoran, Barbara A Cornblatt, Covadonga M Diaz-Caneja, Dominic Dwyer, Bjørn H Ebdrup, Lauren M Ellman, Paolo Fusar-Poli, Liliana Galindo, Pablo A Gaspar, Carla Gerber, Louise Birkedal Glenthøj, Robert Glynn, Michael P Harms, Leslie E Horton, René S Kahn, Joseph Kambeitz, Lana Kambeitz-Ilankovic, John M Kane, Tina Kapur, Matcheri S Keshavan, Sung-Wan Kim, Nikolaos Koutsouleris, Marek Kubicki, Jun Soo Kwon, Kerstin Langbein, Kathryn E Lewandowski, Gregory A Light, Daniel Mamah, Patricia J Marcy, Daniel H Mathalon, Patrick D McGorry, Vijay A Mittal, Merete Nordentoft, Angela Nunez, Ofer Pasternak, Godfrey D Pearlson, Jesus Perez, Diana O Perkins, Albert R Powers, David R Roalf, Fred W Sabb, Jason Schiffman, Jai L Shah, Stefan Smesny, Jessica Spark, William S Stone, Gregory P Strauss, Zailyn Tamayo, John Torous, Rachel Upthegrove, Mark Vangel, Swapna Verma, Jijun Wang, Inge Winter-van Rossum, Daniel H Wolf, Phillip Wolff, Stephen J Wood, Alison R Yung, Carla Agurto, Mario Alvarez-Jimenez, Paul Amminger, Marco Armando, Ameneh Asgari-Targhi, John Cahill, Ricardo E Carrión, Eduardo Castro, Suheyla Cetin-Karayumak, M Mallar Chakravarty, Youngsun T Cho, David Cotter, Simon D'Alfonso, Michaela Ennis, Shreyas Fadnavis, **Clara Fonteneau**, Caroline Gao, Tina Gupta, Raquel E Gur, Ruben C Gur, Holly K Hamilton, Gil D Hoftman, Grace R Jacobs, Johanna Jarcho, Jie Lisa Ji, Christian G Kohler, Paris Alexandros Lalousis, Suzie Lavoie, Martin Lepage, Einat Liebenthal, Josh Mervis, Vishnu Murty, Spero C Nicholas, Lipeng Ning, Nora Penzel, Russell Poldrack, Pablo Polosecki, Danielle N Pratt, Rachel Rabin, Habiballah Rahimi Eichi, Yogesh Rathi, Avraham Reichenberg, Jenna Reinen, Jack Rogers, Bernalyn Ruiz-Yu, Isabelle Scott, Johanna Seitz-Holland, Vinod H Srihari, Agrima Srivastava, Andrew Thompson, Bruce I Turetsky, Barbara C Walsh, Thomas Whitford, Johanna T W Wigman, Beier Yao, Hok Pan Yuen, Uzair Ahmed, Andrew (Jin Soo) Byun, Yoonho Chung, Kim Do, Larry Hendricks, Kevin Huynh, Clark Jeffries, Erlend Lane, Carsten Langholm, Eric Lin, Valentina Mantua, Gennarina Santorelli, Kosha Ruparel, Eirini Zoupou, Tatiana Adasme, Lauren Addamo, Laura Adery, Munaza Ali, Andrea Auther, Samantha Aversa, Seon-Hwa Baek, Kelly Bates, Alyssa Bathery, Johanna M M Bayer, Rebecca Beedham, Zarina Bilgrami, Sonia Birch, Ilaria Bonoldi, Owen Borders, Renato Borgatti, Lisa Brown, Alejandro Bruna, Holly Carrington, Rolando I Castillo-Passi, Justine Chen, Nicholas Cheng, Ann Ee Ching, Chloe Clifford, Beau-Luke Colton, Pamela Contreras, Sebastián Corral, Stefano Damiani, Monica Done, Andrés Estradé, Brandon Asika Etuka, Melanie Formica,

Rachel Furlan, Mia Geljic, Carmela Germano, Ruth Getachew, Mathias Goncalves, Anastasia Haidar, Jessica Hartmann, Anna Jo, Omar John, Sarah Kerins, Melissa Kerr, Irena Kesselring, Honey Kim, Nicholas Kim, Kyle Kinney, Marija Krcmar, Elana Kotler, Melanie Lafanechere, Clarice Lee, Joshua Llerena, Christopher Markiewicz, Priya Matnejl, Alejandro Maturana, Aissata Mavambu, Rocío Mayol-Troncoso, Amelia McDonnell, Alessia McGowan, Danielle McLaughlin, Rebecca McIlhenny, Brittany McQueen, Yohannes Mebrahtu, Martina Mensi, Christy Lai Ming Hui, Yi Nam Suen, Stephanie Ming Yin Wong, Neal Morrell, Mariam Omar, Alice Partridge, Christina Phassouliotis, Anna Pichiecchio, Pierluigi Politi, Christian Porter, Umberto Provenzani, Nicholas Prunier, Jasmine Raj, Susan Ray, Victoria Rayner, Manuel Reyes, Kate Reynolds, Sage Rush, Cesar Salinas, Jashmina Shetty, Callum Snowball, Sophie Tod, Gabriel Turra-Fariña, Daniela Valle, Simone Veale, Sarah Whitson, Alana Wickham, Sarah Youn, Francisco Zamorano, Elissa Zavaglia, Jamie Zinberg, Scott W Woods, Martha E Shenton, Accelerating Medicines Partnership® Schizophrenia (AMP® SCZ): Rationale and Study Design of the Largest Global Prospective Cohort Study of Clinical High Risk for Psychosis, *Schizophrenia Bulletin*, Volume 50, Issue 3, May 2024, Pages 496–512

5. Jie Lisa Ji, Jure Demšar, **Fonteneau Clara**, Zailyn Tamayo, Lining Pan, Aleksij Kraljič, Andraž Matkovič, Nina Purg, Markus Helmer, Shaun Warrington, Anderson Winkler, Valerio Zerbi, Timothy S. Coalson, Matthew F. Glasser, Michael P. Harms, Stamatios N. Sotiropoulos, John D. Murray, Alan Anticevic, Grega Repovš (2023) QuNex –An Integrative Platform for Reproducible Neuroimaging Analytics. Frontiers in Neuroinformatics
6. Flora Moujaes, Jie Lisa Ji, Masih Rahmati, Joshua Burt, Charles H. Schleifer, Brendan Adkinson, Aleksandar Savič, Nicole Santamauro, Zailyn Tamayo, Caroline Diehl, Antonija Kolobaric, Morgan Flynn, Nathalie M. Rieser, **Fonteneau Clara**, Terry Camarro, Junqian Xu, Youngsun T. Cho, Grega Repovš, Sarah K. Fineberg, Peter Morgan, Erich Seifritz, Franz X. Vollenweider, John Krystal, John D. Murray, Katrin H. Preller, Alan Anticevic (2024) Ketamine induces multiple individually distinct whole-brain functional connectivity signatures eLife 13:e84173
7. Ji Jie L, Helmer Markus, **Fonteneau Clara**, Burt Josh B, Tamayo Zailyn, Demšar Jure, Adkinson Brendan D, Savić Aleksandar, Preller Katrin H, Moujaes Flora, Vollenweider FX, Martin William J, Repovš Grega, Cho Youngsun T, Pittenger Chris, Murray John D, Anticevic Alan. (2021) Mapping brain-behavior space relationships along the psychosis spectrum. Elife
8. Mondino Marine, **Fonteneau Clara**, Simon Louis, Dondé Clément, Haesebaert Frédéric, Poulet Emmanuel, Brunelin Jerome (2021) Advancing clinical response characterization to frontotemporal transcranial direct current stimulation with electric field distribution in patients with schizophrenia and auditory hallucinations: A pilot study; Eur Arch Psychiatry Clin Neurosci
9. Irace Zacharie, Merida Ines, Redoute Jerome, **Fonteneau Clara**, Suaud-Chagny Marie-Françoise, Brunelin Jérome, Vidal Benjamin, Zimmer Luc, Reilhac Anthonin, Costes Nicolas (2020) Bayesian Estimation of the ntPET Model in Single-Scan Competition PET Studies; Frontiers in Physiology
10. **Fonteneau Clara**, Redouté Jérome, Haesebaert Frédéric, Le Bars Didier, Costes Nicolas, Suaud-Chagny Marie-Françoise, Brunelin Jérome (2018) Frontal transcranial direct current stimulation induces dopamine release in the ventral striatum in human, *Cerebral Cortex,* Volume 28, Issue 7, 1 July 2018, Pages 2636–2646, https://doi.org/10.1093/cercor/bhy093
11. Psomiades Marion, Mondino Marine, **Fonteneau Clara**, Bation Rémy, Haesebaert Fréderic, Suaud-Chagny Marie-Françoise, Brunelin Jérome (2018) N-Acetyl-Aspartate in the dorsolateral prefrontal cortex in men with schizophrenia and auditory verbal hallucinations: A 1.5T Magnetic Resonance Spectroscopy Study; *Scientific Report*
12. Psomiades Marion, **Fonteneau Clara**, Mondino Marine, Luck David, Haesebaert Frederic, Suaud-Chagny Marie-Françoise, Brunelin Jérome (2016) Integrity of the arcuate fasciculus in patients with schizophrenia with and without auditory verbal hallucinations: A DTI-tractography study; *NeuroImage: Clinical* 12; 970–975 http://dx.doi.org/10.1016/j.nicl.2016.04.013
13. Bidet-Caulet A, Bottemanne L, **Fonteneau C**, Giard M-H, Bertrand O (2014) Brain Dynamics of Distractibility: Interaction Between Top-Down and Bottom-Up Mechanisms of Auditory Attention. *Brain Topography*

Reviews, Chapters & Commentaries

1. Christian G. Kohler, Daniel H. Wolf, Anissa Abi-Dargham, Alan Anticevic, Youngsun T. Cho, **Fonteneau Clara,** Roberto Gil, Ragy R. Girgis, David L. Gray, Jack Grinband, Jonathan A. Javitch, Joshua T. Kantrowitz, John H. Krystal, Jeffrey A. Lieberman, John D. Murray, Mohini Ranganathan, Nicole Santamauro, Jared X. Van Snellenberg, Zailyn Tamayo, Deepak D'Souza, Vinod Srihari, Ralitza Gueorguieva, Prashant Patel, Kimberlee Forselius-Bielen, Jing Lu, Audrey Butler, Geena Fram, Yvette Afriyie-Agyemang, Alexandria Selloni, Laura Cadavid, Sandra Gomez-Luna, Aarti Gupta, Rajiv Radhakrishnan, Ali Rashid, Ryan Aker, Philisha Abrahim, Anahita Bassir Nia, Toral Surti, Lawrence S. Kegeles, Marlene Carlson, Terry Goldberg, James Gangwisch, Erinne Benedict, Preetika Govil, Stephanie Brazis, Megan Mayer, Nathalie de la Garrigue, Natalka Fallon, Topaz Baumvoll, Sameera Abeykoon, Greg Perlman, Kelly Bobchin, Mark Elliott, Lyndsay Schmidt, Sage Rush, Allison Port, Zac Heffernan, Nina Laney, Jenna Kantor, Thomas Hohing, Ruben C. Gur, Raquel E. Gur, Monica E. Calkins (2023) Illness Phase as a Key Assessment and Intervention Window for Psychosis, Biological Psychiatry Global Open Science, Volume 3, Issue 3, 2023, Pages 340-350, ISSN 2667-1743
2. Anissa Abi-Dargham, Jonathan A Javitch, Mark Slifstein, Alan Anticevic, Monica E Calkins, Youngsun T Cho, **Fonteneau Clara**, Roberto Gil, Ragy Girgis, Raquel E Gur, Ruben C Gur, Jack Grinband, Joshua Kantrowitz, Christian Kohler, John Krystal, John Murray, Mohini Ranganathan, Nicole Santamauro, Jared Van Snellenberg, Zailyn Tamayo, Daniel Wolf, TRANSCENDS Group,

David Gray, Jeffrey Lieberman (2021) Dopamine D1R Receptor Stimulation as a Mechanistic Pro-cognitive Target for Schizophrenia; Schizophrenia Bulletin

3. **Fonteneau Clara**, Mondino Marine, Arns Martijn, Baeken Chris, Bikson Marom, Brunoni Andre R, Burke Matthew J, Neuvonen Tuomas, Padberg Frank, Pascual-Leone Alvaro, Poulet Emmanuel, Ruffini Giulio, Santarnecchi Emiliano, Sauvaget Anne, Schellhorn Klaus, Suaud-Chagny Marie-Francoise, Palm Ulrich, Brunelin Jérome (2019) Sham tDCS: a hidden source of variability? Reflections for further blinded, controlled trials; *Brain Stimulation*, https://doi.org/10.1016/j.brs.2018.12.977
4. **Fonteneau Clara*,** Psomiades Marion*, Suaud-Chagny Marie-Françoise, Haesebaert Frédéric, Brunelin Jérôme (2015) Neurostimulation du cortex préfrontal dorsolatéral : quels effets sur la symptomatologie et les émotions dans la dépression et la schizophrénie ? ; Santé mentale au Québec; *co-author
5. Mondino Marine, **Fonteneau Clara**, Brunelin Jérome (2015) Schizophrenia. Book Chapter in Transcranial Direct Current Stimulation in Neuropsychiatric Disorders: Clinical Principles and Management by Brunoni AR, Nitsche MA, Loo CK. Springer NY, USA

Open Science Contributions

2019 - present **Quantitative Neuroimaging Environment & Toolbox (QuNex)** *code*
Core Team Developer
Link: https://qunex.yale.edu/

Presentations

Invited Conference Talks & Symposia

1. Kangjoo Lee, Jie Lisa Ji, **Fonteneau Clara**, Lucie Berkovitch, Masih Rahmati, Lining Pan, Grega Repovš, John H. Krystal, John D. Murray, and Alan Anticevic (2024) ”Human brain state dynamics reflect individual neuro-phenotypes”, Clinical Applications of Precision Imaging Symposium, Society of Biological Psychiatry’s Annual Meeting, May 9-11, 2024
2. **Fonteneau Clara (2020)**; Mapping neurodevelopmental trajectories of thalamo-cortical systems across mental health spectra. Appetitive Neuroimaging Seminar Series, Yale Interdepartmental Neuroscience Program, Yale University
3. **Fonteneau Clara (2018)** Neurophysiological impact of a fronto-temporal transcranial direct current stimulation (tDCS) in healthy humans: a simultaneous PET-MR approach; Talk in the symposium: Transcranial direct current stimulation for auditory hallucinations: evidence from clinical and neurophysiological studies. 3rd European Conference on Brain Stimulation in Psychiatry; Lyon, France
4. **Fonteneau Clara (2018)** Online transcranial direct current stimulation of the prefrontal cortex induces dopamine release in the ventral striatum in humans. Annual Scientific Meeting, Doctoral School of Neuroscience and Cognition, Lyon
5. Merida Inés, Fonteneau Clara, Reilhac Anthonin, Redouté Jérôme, Irace Zacharie, Suaud-Chagny Marie-Françoise, Hammers Alexander, Costes Nicolas; Motion correction and multi-atlas attenuation correction applied to a simultaneous bolus/infusion PET-MR brain study; Talk given (by I. Merida) at 6th PET-MRI and SPECT-MRI (PSMR) Conference; Lisbon, Portugal, May 2017
6. **Fonteneau Clara (2017)** Exploration of PET modeling methods in the case of displacement by an endogenous neurotransmitter (lp-ntPET approach) [L’exploration des méthodes de modélisation TEP dans le cas de déplacement par un neurotransmetteur endogène (approche lp-ntPET)], Journal Club CERMEP, Lyon
7. **Fonteneau Clara (2017)** Neurophysiological impact of a fronto-temporal transcranial direct current stimulation (tDCS) in healthy subjects: a PET-MR multimodal imaging approach. NeuroImaging Journal Club, CRNL, Lyon Journée Scientifique LILI – IRM-TEP, Lyon
8. **Fonteneau Clara (2016)** Effets de la stimulation transcrânienne en courant continu sur la transmission dopaminergique chez le sujet sain. Partenariat Université Lyon 2 et Conseil scientifique de la recherche CH Le Vinatier, Lyon
9. **Fonteneau Clara (2016)** Neurophysiological impact of transcranial direct current stimulation (tDCS) in healthy subjects. Berenson-Allen Center for NonInvasive Brain Stimulation, Boston
10. **Fonteneau Clara (2016)** Neurophysiological impact of a fronto-temporal transcranial direct current stimulation (tDCS) in healthy subjects: a multimodal imaging approach. Conseil scientifique de la Fondation Neurodis, Lyon

Contributed Conference Talks, Panels & Symposia

1. **Fonteneau Clara**, Forest Jeremy (2016) Co-organizer, Big Data in Neuroscience Conference. Invited guest speakers: Dr G. Varoquaux, Dr P-A Gourraud, Dr N. Lechopier [CRNL]

Selected Posters

1. **Clara Fonteneau**, Mika Naganawa, Sophie Holmes, Markus Helmer, Jie Lisa Ji, Irina Esterlis, William J. Martin, Richard E. Carson, Alan Anticevic, ”Advancing PET Surface-based Analysis - Integration in a Multimodal Imaging Pipeline”, Organization for Human Brain Mapping (OHBM), 2024

2. Kangjoo Lee, Jie Lisa Ji, **Clara Fonteneau**, Lucie Berkovitch, Masih Rahmati, Lining Pan, Grega Repovš, John H. Krystal, John D. Murray, and Alan Anticevic, ”State-trait dynamics of the human brain reflect individual behavior and life functions”, ”Symposia: Brain State and Trait Dynamics in Mental Illnesses”, Organization for Human Brain Mapping (OHBM), 2024
3. Kangjoo Lee, **Clara Fonteneau**, Ally Price, Lucie Berkovitch, Jie Lisa Ji, Zailyn Tamayo, Yvette Afriyie-Agyemang, Amber Howell, Grega Repovš, John D. Murray, Youngsun Cho, Alan Anticevic, ”Non-linear Impact of Symptom Severity on Effect Size of Neuro-Symptom Variations in Psychosis”, Organizations for Human Brain Mapping (OHBM), 2024
4. Kangjoo Lee, **Clara Fonteneau**, Ally Price, Lucie Berkovitch, Jie Lisa Ji, Zailyn Tamayo, Yvette Afriyie-Agyemang, Amber Howell, Grega Repovš, John D. Murray, Youngsun Cho, Alan Anticevic, ”Symptom Severity of Sample Population Impacts the Reproducibility of Neuro-Symptom Relationship in Psychosis”, Society of Biological Psychiatry (SOBP), 2024
5. Ziv Ben-Zion, Kangjoo Lee, **Clara Fonteneau**, Israel Liberzon, Arieh Y. Shalev, Talma Hendler, Ifat Levy, Alan Anticevic, Ilan Harpaz-Rotem, ”Neurobehavioral Mapping of Posttraumatic Stress Disorder Development in Recent Trauma Survivors”, Society of Biological Psychiatry (SOBP), 2024
6. **Clara Fonteneau**, Kangjoo Lee, Lucie Berkovitch, Ally Price, Jie Lisa Ji, Lining Pan, Zailyn Tamayo, Yvette Afriyie-Agyemang, Amber Howell, Grega Repovš, John D. Murray, Alan Anticevic, ”Characterizing Thalamocortical Network Development in Psychosis Spectrum Youth”, Organizations for Human Brain Mapping (OHBM), 2023
7. **Clara Fonteneau**, Kangjoo Lee, Lucie Berkovitch, Chenyang Lin, Lining Pan, Zailyn Tamayo, Xia Wei, Grega Repovš, John D. Murray, Su Lui, Qiyong Gong, Alan Anticevic, ”Mapping the neurobiological and behavioral progression of early course schizophrenia”, Organizations for Human Brain Mapping (OHBM), 2023
8. **Clara Fonteneau**, Lucie Berkovitch, Kangjoo Lee, Jie Lisa Ji, Jure Demšar, Aleksij Kraljic, Andraz Matkovic, Zailyn Tamayo, John D. Murray, Grega Repovš, Alan Anticevic, ”Mapping Individually Actionable Brain-Behavior Space Variation Across the Mood Spectrum”, Organizations for Human Brain Mapping (OHBM), 2023
9. Chenyang Lin, **Clara Fonteneau**, Kangjoo Lee, Lucie Berkovitch, Lining Pan, Zailyn Tamayo, Xia Wei, Grega Repovš, John D. Murray, Su Lui, Qiyong Gong, Alan Anticevic, Mapping the neurobiological and behavioral progression of early course schizophrenia, Society of Biological Psychiatry (SOBP), 2023
10. Lucie Berkovitch, **Clara Fonteneau**, Kangjoo Lee, Jie Lisa Ji, Jure Demšar, Zailyn Tamayo, John Murray, Grega Repovš, Alan Anticevic, Mapping Individually Actionable Brain-Behavior Space Variation Across the Mood Spectrum, Society of Biological Psychiatry (SOBP), 2023
11. Ally Price, **Clara Fonteneau**, Kangjoo Lee, Lucie Berkovitch, Jie Lisa Ji, Lining Pan, Zailyn Tamayo, Yvette Afriyie-Agyemang, Amber Howell, Grega Repovš, John D. Murray, Youngsun Cho, Alan Anticevic, Characterizing thalamocortical network development in psychosis spectrum youth, Society of Biological Psychiatry (SOBP), 2023
12. Jie Lisa Ji, Jure Demšar, **Clara Fonteneau**, Shaun Warrington, Zailyn Tamayo, Aleksij Kraljič, Andraž Matkovič, Nina Purg, Markus Helmer, Stamatios Sotiropoulos, John Murray, Alan Anticevic, Grega Repovš, A Scalable Platform for Integrated Multi-Modal Neuroimaging Data Processing and Analysis Across Psychiatric Studies, Society of Biological Psychiatry (SOBP), 2022
13. **Clara Fonteneau**, Lisa Jie Ji, Jure Demsar, Aleksij Kraljič, Andraž Matkovič, Zailyn Tamayo, Vicki Foss, Oscar Rodriguez, Pablo Gersberg, John D. Murray, William J. Martin, Grega Repovs, Alan Anticevic, Mapping Individually Actionable Brain-Behavior Space Variation Across the Mood Spectrum, Organizations for Human Brain Mapping (OHBM), 2020
14. **Clara Fonteneau**, Amber Howell, Geena Fram, Audrey Butler, Yvette Afriyie-Agyemang, Diego Martell, Lisa Jie Ji, Grega Repovs, Neil Woodward, Alan Anticevic, Mapping Neurodevelopmental Trajectories of Thalamo-cortical Systems Across the Mental Health Spectra, Organizations for Human Brain Mapping (OHBM), 2020
15. **Clara Fonteneau**, Amber Howell, Geena Fram, Audrey Butler, Yvette Afriyie-Agyemang, Lisa Jie Ji, Grega Repovs, Neil Woodward, Alan Anticevic, Mapping Neurodevelopmental Trajectories of Thalamo-cortical Systems Across the Mental Health Spectra, Society of Biological Psychiatry (SOBP), 2020
16. Simon Louis, **Fonteneau Clara**, Poulet Emmanuel, Mondino Marine, Brunelin Jérôme; Fronto-temporal transcranial direct current stimulation (tDCS) for auditory verbal hallucination in schizophrenia ; Poster presented at Congrès Français de Psychiatrie; Nice France; December 2019
17. **Fonteneau Clara**, Ji Lisa Jie, Howell Amber, Repovs Grega, Dickie Erin W, Coalson Timothy S, Andersson Jesper, Glasser Matthew F, Anticevic Alan; Advancing Legacy fMRI Analyses: Towards Fieldmap-free Susceptibility Distortion Correction of GRE EPI Data; Poster presented at Society for Neuroscience; Chicage, USA, October 2019
18. **Fonteneau Clara**, Howell Amber, Kolobaric Antonija, Ji Lisa Jie, Repovs Grega, Woodward Neil D, Anticevic Alan; Mapping neurodevelopmental trajectories of thalamo-cortical systems across the mental health spectra; Poster presented at Society for Neuroscience; Chicage, USA, October 2019
19. Howell Amber, Warrington Shaun, Ji Lisa Jie, Adkinson Brendan, **Fonteneau Clara**, Sotiropoulos Stamatios. N, Murray John D, Anticevic Alan; Defining Targeted Projection Patterns in Thalamus using Diffusion Weighted Imaging; Poster presented at Society for Neuroscience; Chicage, USA, October 2019
20. **Fonteneau Clara**, Mondino Marine, Arns Martijn, Baeken Chris, Bikson Marom, Brunoni Andre R, Burke Matthew J, Neuvonen Tuomas, Padberg Frank, Pascual-Leone Alvaro, Poulet Emmanuel, Ruffini Giulio, Santarnecchi Emiliano, Sauvaget Anne,

Schellhorn Klaus, Suaud-Chagny Marie-Francoise, Palm Ulrich, Brunelin Jérome; Sham tDCS: a hidden source of variability? Reflections for further blinded, controlled trials; Poster presented at 3rd European Conference on Brain Stimulation in Psychiatry; Lyon, France, October 2018

21. Intartaglia Bastien, ElShafei Hesham, **Fonteneau Clara**, Catenoix Hélène, Bonnefond Mathilde, Bertrand Olivier, Bidet-Caulet Aurélie; Brain oscillatory dynamics in the bottom-up/top-down balance of auditory attention: intracranial recordings; Poster presented at 2nd Salzburg Mind – Brain Annual Meeting, SAMBA 2018.
22. **Fonteneau Clara**, Merida Inès, Redouté Jérome, Haesebaert Frédéric, Costes Nicolas, Brunelin Jérome, Suaud-Chagny Marie-Françoise; Neurophysiological impact of a fronto-temporal transcranial direct current stimulation in healthy subjects: a multimodal PET-MR imaging approach; Poster presented at *Non Invasive Brain stimulation techniques (NIBS) for psychiatric disorders*; Munich, Germany; October 2017 ***1st poster prize**
23. Merida Inés, **Fonteneau Clara**, Reilhac Anthonin, Redouté Jérôme, Irace Zacharie, Suaud-Chagny Marie-Françoise, Hammers Alexander, Costes Nicolas; Motion correction and multi-atlas attenuation correction applied to a simultaneous bolus/infusion PET-MR brain study; Talk given (by I. Merida) at 6th PET-MRI and SPECT-MRI (PSMR) Conference; Lisbon, Portugal, May 2017
24. Merida Inés, Hammers Alexander, Redouté Jérôme, McGinnity Colm, **Fonteneau Clara**, Suaud-Chagny Marie-Françoise, Reilhac Anthonin, Costes Nicolas ; Attenuation correction with a multi-atlas method for brain PET-MR imaging: assessment with realistic simulated [11C]raclopride bolus-infusion PET data ; Poster presented at *28th International Symposium on Cerebral Blood Flow, Metabolism and Function & 13th International Conference on Quantification of Brain Function with PET*; Berlin, Germany, April 2017
25. **Fonteneau Clara**, Haesebaert Frédéric, Redouté Jérome, Le Bars Didier, Costes Nicolas, Brunelin Jérome, Suaud-Chagny Marie-Françoise ; Online transcranial direct current stimulation of the frontal cortex induces dopamine release in the striatum – a spatial and temporal analysis in healthy humans ; Poster presented at *2nd International Brain Stimulation conference*, Barcelona, Spain; March 2017
26. Reilhac Anthonin, Berrada Rania, Irace Zacharie, Merida Inés, **Fonteneau Clara**, Suaud-Chagny Marie-Françoise, Costes Nicolas ; Développements d'une méthode de correction de mouvement en IRM-TEP cérébrale ; Poster presented at *Recherche en Imagerie et Technologie pour la santé (RITS),* Lyon, France, Mars 2017
27. **Fonteneau Clara**, Haesebaert Frédéric, Villien Marjorie, Redouté Jérome, Le Bars Didier, Costes Nicolas, Brunelin Jérome, Suaud-Chagny Marie-Françoise ; Neurophysiological impact of a fronto-temporal transcranial direct current stimulation in healthy subjects: a multimodal PET-MR imaging approach; Poster presented at *11th International Symposium on Functional NeuroReceptor Mapping of the Living Brain*, Boston, USA; July 2016
28. **Fonteneau Clara**, Haesebaert Frédéric, Redouté Jérome, Le Bars Didier, Costes Nicolas, Brunelin Jérome, Suaud-Chagny Marie-Françoise ; Acute and subsequent effects of transcranial direct current stimulation on the dopaminergic transmission in healthy humans ; Poster presented at *11th International Symposium on Functional NeuroReceptor Mapping of the Living Brain*, Boston, USA; July 2016
29. **Fonteneau Clara**, Redouté Jérome, Le Bars Didier, Costes Nicolas, Brunelin Jérome, Suaud-Chagny Marie-Françoise; Impact of transcranial direct current stimulation on the dopaminergic transmission in healthy humans; Poster presented at *Non Invasive Brain stimulation techniques (NIBS) for psychiatric disorders* Ghent, Belgium; December 2015 ***2nd poster prize**
30. Psomiades Marion*, **Fonteneau Clara*,** Haesebaert Frédéric, Suaud-Chagny Marie-Françoise, Brunelin Jérôme. Does prefrontal non invasive brain stimulation alleviating symptoms in depression and schizophrenia impact emotion processing ?; Poster presented at *Non Invasive Brain stimulation techniques (NIBS) for psychiatric disorders* Ghent, Belgium; December 2015; * co-author

Mentorship

Primary Supervisor

- Layla Lavalle (PhD Student, Visiting student, Clinical Neuroscience, 2021-2022): advised and mentored on project
- Julie Renaud (MSc Clinical Neuroscience, 2016-2017): advised during internship
- Jeanne Monnier (MSc Clinical Neuroscience, 2015): advised during internship

Assisted in the Supervision

- Masih Rahmati (Post-Doctoral Associate, 2021-present): advises on projects
- Amber Howell (PhD Student, Interdepartmental Neuroscience Program, 2019-present): advises on projects
- Catrin Zharyy (postgraduate associate, 2022-present): advises and mentors on projects
- Courtney Cail (postgraduate associate, 2022-present): advises and mentors on projects
- Samuel Brege (postgraduate associate, 2022-present): advises and mentors on projects
- Lucie Berkovitch (Post-Doctoral Associate, 2021-2023): advised on projects
- Ally Price (postgraduate associate, 2022-present): advised and mentored on projects

- Chenyang Lin (postgraduate associate, 2022-present): advised and mentored on projects
- Lining Pan (postgraduate associate, 2022-present): advised and mentored on projects
- Yvette Afriyie-Agyemang (postgraduate associate, 2022-present): advised and mentored on projects
- Ryan Aker (postgraduate associate, 2022-present): advised and mentored on projects
- Geena Fram (postgraduate associate, 2022-present): advised and mentored on projects
- Audrey Butler (postgraduate associate, 2022-present): advised and mentored on projects
- Louis Simon (MSc Clinical Neuroscience, 2017-2018): advised and mentored on projects
- Charline Magnin (MSc Clinical Neuroscience, 2018-2019): advised and mentored on projects

Teaching

2017	**Guest Lecturer - Transcranial Direct Current Stimulation (tDCS) & Neuroimaging** STEP – Transcranial Stimulation in Psychiatry, From Theory to Practice
2016-2017	**Instructor – Neurophysiology:** Teaching assistant in the Neurosciences department (undergraduate level course). Practice work within a broader course involving general neurophysiology which reviewed all the different sensory modalities as well as motor function and memory. Practice work consisted in the microscope histological observations of tissue samples from every modality where students were asked to draw and legend what they saw. Claude Bernard Lyon 1 University
2010-2013	**Tutor: English** Participated as a core member in the Tutoring center of the Lyon 1 University at least twice a week. Expected number of students tutored >100, either in groups or 1-1. Experience from basic English communication to Preparation for high level English certification [e.g. TOEFL, TOIC, B2 First, C1 Advanced, C2 Proficiency] Claude Bernard Lyon 1 University

Professional Service

Memberships	Society for Neuroscience, Transcranial Stimulation in Psychiatry (STEP)
Peer Review	Journal of Neurochemistry; Neuropsychopharmacology; Schizophrenia Bulletin; Scientific Reports; NeuroImage Clinical
Lab services	Training and Mentoring new lab members (2019-present) Weekly trainings: Neuroimaging processing & analytics, BIDS, Introduction to R, Bash and Python, XNAT and Docker Container usage Organizer Journal Club (PsyR2 Team, 2015-2018) Grant and Funding watch for PsyR2 Team (2015-2018)

Skills

Regulatory	Research project design, Grant submission, Clinical trial management (budget, ethics requirements, subject recruitment)
Imaging	PET acquisition and analysis; MRI acquisition and analysis (ASL, DWI, resting-state and spatial working memory fMRI); Brain Stimulation (tDCS, TMS), Scalp and intracranial EEG acquisition and analysis
Programing	Bash, Python, R, LaTeX
Communication	English bilingual, German conversation, Spanish proficient

Interests

Sports	Rock climbing, Alpinism, Ski
Hobbies	Photography, Cooking, Trekking, Cello