

LEA MICHEL

 @LeaCMichel

lea.michel@radboudumc.nl 

ACADEMIC POSITIONS

Ph.D. in Developmental Neuroscience

Sept 2021 - Aug 2025

Donders Institute for Brain, Cognition, and Behaviour

Nijmegen, NL

Supervisors: Professor Rogier Kievit and Professor Carolina de Weerth

Thesis: Understanding the interplay between grey and white matter structure in supporting cognitive development in childhood and adolescence

Visiting researcher

Jan-April 2025

Lifespan Modelling and Psychometrics Lab, King's College London

London, UK

Supervisor: Dr Delia Fuhrmann

Subject: The neural scars of adversity: how different kinds of adversity shape the development of grey and white matter in the brain

Visiting researcher

March 2023

Social, Cognitive, Affective and Neuroscience, University of Birmingham

Birmingham, UK

Supervisor: Professor Stephane De Brito

Subject: Finishing the VBM project on youths with conduct disorder the effect of gender and callous-unemotional traits

Internship at Addiction and Mental Health Group

Feb 2021 - Jul 2021

Department of Psychology, University of Bath

Bath, UK

Supervisor: Dr Esther Walton

MSc2 Thesis: The role of epigenetic age in the relationship between stressful events and brain structure in adolescent males of the ALSPAC cohort

Internship at Developmental Biopsychiatry Research Program

Mar 2020 - Jul 2020

McLean Hospital

Boston, USA

Supervisors: Dr Kyoko Ohashi and Dr Martin Teicher

Subject: Effect of childhood maltreatment on functional connectivity in resting-state and MIST task

Internship at the SCAN lab

Aug 2019 - Jan 2020

Social, Cognitive, Affective and Neuroscience, University of Birmingham

Birmingham, UK

Supervisor: Dr Stephane De Brito

Subject: Voxel-Based Morphometry study on youths with conduct disorder the effect of sex and callous-unemotional traits

Internship at the Memory, Brain and Cognition laboratory

Nov 2018 - Jun 2019

Memory, Brain and Cognition laboratory (LMC²), Psychology Department, Université de Paris Boulogne-Billancourt, France

Supervisors: Dr Pascale Piolino and Dr Valentina La Corte

MSc1 Thesis: Study of the neural basis of episodic memory

Internship at the Babylab

Laboratoire de Sciences Cognitives et Psycholinguistiques, ENS Ulm

Jun - Jul 2018

Paris, France

Supervisor: Dr Mireille Babineau

Subject: Synergies in the acquisition of syntactic categories

EDUCATION

MSc in Cognitive Sciences - major in Neurosciences

Ecole Normale Supérieure, Université de Paris, EHESS

Gap year from September 2019 to August 2020 to do internships

Sept 2018 - June 2021

Paris, FR

BSc in Health Sciences - major in Neurosciences

Université de Paris

Sept 2017 - June 2018

Paris, FR

Higher School Preparatory Class in Biology

Lycee Faidherbe

Sept 2014 - June 2017

Lille, FR

Two-year undergraduate programme (120 ECTS) preparing for the Grandes Ecoles competitive exams. Competitive admission (<10% of students admitted) and one of the highest workload in Europe (~45 contact hours and up to 10 hours of oral and written exams per week)

PUBLICATIONS

Sadeghi, N., Van Der Velpen, I., Baker, B., Batta, I., Genon, S., McCormick, E. M., **Michel, L.C.**, ... , White, T. (2025). The interplay between brain and behavior during development: A multisite effort to generate and share simulated datasets. *Scientific Data*, 12(1), 473.

Coolen, I. E., van Langen, J., Hofman, S., van Aagten, F. E., Schaaf, J. V., **Michel, L.C.**, Aristodemou, M., Judd, N., van Hout, A. T. B., Meeussen, E., Kievit, R. A. (2024). P

Michel, L.C., McCormick, E. M., Kievit, R. A. (2024). Grey and white matter metrics demonstrate distinct and complementary prediction of differences in cognitive performance in children: Findings from ABCD (N= 11 876). *Journal of Neuroscience*. protocol and preregistration for the CODEC project: measuring, modelling and mechanistically understanding the nature of cognitive variability in early childhood. *BMC psychology*, 12(1), 407

In Preparation

Michel, L.C., Sørensen, Ø., Parsons, S., McCormick, E. M., Madsen, K. S., Baare, W., Kievit, R. A. (2025). Longitudinal co-development of grey and white matter structure in typical development in a 12 waves sample.

Michel, L.C., Judd, N., Goriounova, N., de Kock, C. P.J., Kievit, R. A. (2025). In vivo histology of grey matter tissue predicts cognitive performance not captured by MRI metrics.

SCHOLARSHIPS AND AWARDS

Radboud Internationalisation travel grant Grants for outgoing PhD to support my research visit in London	January 2025 700€
PhD talk prize - Donders Discussion Prize for the best individual talk during the Donders Discussion (Donders conference for PhD)	October 2024
Cognitive Neuroscience Department Team Player Award Award recognizing personal contribution to the department beyond of what can be expected from their position	2024
Society for the Improvement of Psychological Science Grant Grants-In-Aid to Reduce Barriers to Improving Psychological Science	2023 300 \$
Erasmus Staff Training Grant 2 weeks internship at the CHBH at the University of Birmingham	2023 approx 2,000€
MIBPT – Midlands Integrative Biosciences Training Partnership BBSRC funded Doctoral Training Partnership between 5 universities 1st candidate accepted in the Psychology department at the University of Birmingham (declined)	2021 approx £76,000
MIRES – Excellence mobility scholarship for master students Universite de Paris	2021 5,000€
Minister of Higher Education and Research scholarship Universite de Paris	2020 2,000€
MIRES – Excellence mobility scholarship for master students Universite de Paris	2019-2020 5,000€

TEACHING EXPERIENCE

Instructor - Workshop on Latent Growth Curve Model Designing and teaching an afternoon workshop for researchers from a consortium on latent growth curve model Donders Institute	Nov 2024 <i>Nijmegen, NL</i>
Instructor - Modelling Neurodevelopment using Big Data Designing and teaching a two-days course for BSc students about R, regressions, plots and neurodevelopment Donders Institute	2023-2024 <i>Nijmegen, NL</i>
Teaching Assistant - Early Life: The Key to Preventing Lifelong Physical and Mental Disease Coordinating the BSc course and grading the assignments and exams Donders Institute	2021-2023 <i>Nijmegen, NL</i>
Teaching Assistant - Early onset neuropsychiatric disorders: Brain mechanisms and genetic and environmental risk factors Coordinating the MSc course Donders Institute	2021-2023 <i>Nijmegen, NL</i>

Teacher: Introduction to Psychology

Designing and teaching a psychology course for 4 weeks for a group of international students from grade 9 to 12

Oxbridge in Paris – Oxbridge Academic programs

Jul, 2021

Paris, FR

SUPERVISION

Supervising MSc first year

Oct - Dec 2024

Fernando Fernández de Cuevas - Cognitive Neuroscience MSc

Donders Institute, NL

Quality control of structural MRI scans in patients

Supervising MSc final year research project

2023 - 2024

Nebbe Al-Moula - Cognitive Neuroscience MSc

Donders Institute, NL

"Sex Specific Associations Between Brain Structure and Autism Symptomatology"

Supervising MSc final year research project

2023 - 2024

Liza Rozman - Cognitive Neuroscience MSc

Donders Institute, NL

"ADHD Symptom Reduction Enhances White Matter Fractional Anisotropy Without Altering Sleep Latency: A Longitudinal Study"

Supervising BSc grant proposal research project

2023 - 2024

Writing grant proposals with a group of five biomedical BSc students

Donders Institute, NL

"Co-development of grey and white matter from birth to 3 years old in premature infants"

Supervising BSc grant proposal research project

2023 - 2024

Writing grant proposals with a group of five biomedical BSc students

Donders Institute, NL

"Potential early biomarkers for autism in high-risk infants: a longitudinal study"

PRESENTATIONS

Conferences**Bridging the gap: Integrating histological and MRI data to better understand brain-behavior relationships**

October, 2024

Nijmegen, NL

Individual talk at the Donders Discussion

Grey and white matter are not two separate tissues

October, 2023

Nijmegen, NL

Lightning talk at the Donders Discussion

The longitudinal development of grey and white matter metrics in typical development

March, 2023

Brussels, BE

International Convention of Psychological Science (ICPS)

Symposium on "Longitudinal Neuroimaging As a Key Avenue to Understanding Cognitive Development: Recent Findings across Four Cohorts."

Does grey and white matter microstructure play complementary roles in supporting cognitive ability ?

April, 2022

Paris, FR

Talk at the Colloquium of Young Researchers in Cognitive Sciences in France

**Grey Matter Volume in Youths with Conduct Disorder:
Effects of Callous-Unemotional Traits**
Talk at the Colloquium of Young Researchers in Cognitive Sciences in France

March, 2021
(virtual)

Department

**Sustainability in academia : Summary of the achievement of the
Green Team within the department**
Department meeting

March, 2024
Donders, NL

**Understanding the interplay between grey and white matter structure
cognitive development in childhood and adolescence**
Collaborative Donders meeting between departments

Oct, 2023
Donders, NL

**The interplay between grey and white matter structure in supporting
cognitive development in typical development**
Department meeting

Oct, 2023
Donders, NL

Invited talk

Grey or white, does it matter?
Neuroscience Sussex Seminar

Mar, 2025
Brighton, UK

**Understanding the interplay between grey and white matter structure
in supporting cognitive development in childhood and adolescence**
Lab meeting in the SCAN lab, Center for Human Brain Health

Mar, 2025
Birmingham, UK

**Understanding the interplay between grey and white matter structure
in supporting cognitive development in childhood and adolescence**
Lab meeting in the LIFE-MAP lab, King's College London

Feb, 2025
London, UK

The interplay between grey and white matter during typical development
Visit meeting in the Center for Human Brain Health

Oct, 2023
Birmingham, UK

Hackathons

PhD et al., foster collaborations between PhDs all over the world
Society for the Improvement of Psychological Science

June 2023
Padova, Italy

Workshops

How to make your research greener ?
organised for the Donders Discussion

2023
Nijmegen, NL

How to write a pre-registration ?
organised for the Fresco association

2021
(virtual)

WEPASCO: serie of workshops for students and young researchers

POSTERS

European Student Conference on Behaviour and Cognition Neurons' dendritic structure predicts differences in IQ but not through MRI cortical thickness	<i>Nov, 2024</i> Paris, FR
CogSci Does grey and white matter microstructure play complementary roles in supporting cognitive performance ?	<i>Jul, 2024</i> Rotterdam, NL
Dutch Neuroscience Meeting Interplay in the longitudinal development of grey and white matter structure in childhood and adolescence	<i>June, 2024</i> Tiel, NL
Donders/NIN meeting Interplay in the longitudinal development of grey and white matter structure in childhood and adolescence	<i>October, 2023</i> Nijmegen, NL
Organisation for Human Brain Mapping - OHBM Interplay in the longitudinal development of grey and white matter structure in childhood and adolescence	<i>July, 2023</i> Montreal, CA
Flux Society Does grey and white matter microstructure play complementary roles in supporting cognitive performance ?	<i>Sep, 2022</i> Paris, FR
Federation of European Neuroscience Societies - FENS Does grey and white matter microstructure play complementary roles in supporting cognitive performance ?	<i>Jul, 2022</i> Paris, FR
L-CID conference "Development Matters" Does grey and white matter microstructure play complementary roles in supporting cognitive performance ?	<i>March, 2022</i> Leiden, NL
Donders Institute Poster session Does grey and white matter microstructure play complementary roles in supporting cognitive performance ?	<i>March, 2022</i> Nijmegen, NL
Colloquium of Young Researchers in Cognitive Sciences in France Grey Matter Volume in Youths with Conduct Disorder: Effects of Callous-Unemotional Traits	<i>Mar, 2021</i> (virtual)

PROFESSIONAL ACTIVITIES

SEA-SIG OHBM - Chair The sustainability and environmental actions group of OHBM foster sustainability for the neuroimaging community	<i>2023 - 2026</i>
Green Team Initiative CNS Working on making our department greener	<i>2023 - present</i>
Committee Pint of Science Nijmegen International Science Festival	<i>2022 - present</i>

PhD et al. - Founder Platform to foster collaborations between PhDs all over the world	<i>2022 - present</i>
Fresco - Honorary member Fresco - Federation of students and young researchers in cognitive science in France	<i>2023 - present</i>
Halkes Women Faculty Network Foster equality and inclusion within the Radboud University	<i>2023 - 2024</i>
Communications Committee Flux Flux: The Society for Developmental Cognitive Neuroscience	<i>2022 - 2024</i>
Donders PhD Council Part of the DCMN council and the Mental Health Committee	<i>2022 - 2023</i>
Blog of Lifespan Cognitive Dynamic lab Creation and managing of the lab blog	<i>2021 - 2023</i>
Fresco - Vice-president Fresco - Federation of students and young researchers in cognitive science in France Promoting and organising interaction and collaborative projects within the French ecosystem in cognitive science	<i>2020-2022</i>
Cognivence - Treasurer Cognivence - Association of students and young researchers in cognitive sciences of Paris Organisation of the 18th edition of the « Forum des Sciences Cognitives»	<i>2018-2019</i>

PUBLIC ENGAGEMENT

Scientific presentation in classroom Presentation of my research to high school students (15-16 years old)	<i>October, 2024</i> Nijmegen, NL
Scientific presentations in classroom Presentations of the brain and my research to children (10-12 years old)	<i>April, 2024</i> Nijmegen, NL
Brain Olympiad Nijmegen Organising an activity around 3D printed animals brains	<i>Feb, 2023 & 2024</i> Nijmegen, NL
Donders Open Day Organising an activity around 3D printed animals brains	<i>Oct, 2022</i> Nijmegen, NL
Cognitive Science Forum of Paris Organisation of the Forum to promote cognitive sciences	<i>Apr, 2022</i> Paris, FR
Cognitive Science Forum of Lille Organisation of the Forum to promote cognitive sciences	<i>Mar, 2022</i> Lille, FR
Cognitive Science Forum of Marseille Organisation of the Forum to promote cognitive sciences	<i>Feb, 2022</i> Marseille, FR
Virtual escape game Introduce concepts in cognitive science to a broad audience	<i>Apr, 2021</i>
Cognitive Science Forum of Paris Organisation of the Forum to promote cognitive sciences	<i>Mar, 2019</i> Paris, FR

TRAINING

Courses

Scientific Outreach for Children. <i>Radboud University</i>	<i>Feb, 2024</i>
Analytic storytelling. <i>Radboud University</i>	<i>May, 2023</i>
Project Management for PhD candidate. <i>Radboud University</i>	<i>May, 2023</i>
The Art of Presenting Science. <i>Radboud University</i>	<i>May, 2023</i>
Writing Scientific Articles. <i>Radboud University</i>	<i>Oct, 2022</i>
Education in a nutshell. <i>Radboud University</i>	<i>Mar, 2022</i>
Introduction to Longitudinal Structural Equation Modelling. <i>CenterStat</i>	<i>Dec, 2021</i>
Introduction to Structural Equation Modelling. <i>CenterStat</i>	<i>Oct, 2021</i>

Workshops

Tractometry - OHBM course.	<i>Jul, 2023</i>
Standing up for Science Workshop.	<i>Dec, 2022</i>
Flux PreConference Workshop: Longitudinal Modelling.	<i>Sep, 2022</i>
Causal Inference from Longitudinal Data. <i>Jacobs/Cifar Wokshop</i>	<i>Mar, 2022</i>

SKILLS

Statistical procedures	Structural equation modelling, longitudinal structural equation modelling, mixed models, growth mixture models, generalized additive latent and mixed models
Statistical software	R, RStudio (expert), MPlus (beginner), SPSS (beginner)
Programming	Python (intermediate), MATLAB (beginner), SPM12 (intermediate), FSL (beginner), FreeSurfer (intermediate)
Data collection	Experience in collecting behavioral and neural data using electroencephalography (EEG)
Other skills	Open Science, Clean and manage big datasets, Latex (basic) website development in R and wordpress
Language	French (native), English (C1), Dutch (B1)

REFERENCES

Available upon request: Prof Rogier Kievit, PhD supervisor (rogier.kievit@radboudumc.nl)