Lina Teichmann, PhD

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Education

02/2016 – 02/2019 **Ph.D. in Cognitive Science,** Macquarie University, Sydney, Australia
Supervisors: Prof. Anina Rich, Dr. Thomas Carlson

01/2015 – 01/2016 **M.Res. in Cognitive Science**, Macquarie University, Sydney, Australia
Supervisors: Prof. Anina Rich, Dr. Mark Nieuwenstein, Dr. Thomas Carlson

09/2013 – 09/2014 **M.Sc. in Psychology,** University of Groningen, The Netherlands.
Supervisors: Dr. Mark Nieuwenstein, Prof. Anina Rich

09/2010 – 09/2013 **B.Sc. in Psychology,** University of Groningen, The Netherlands.
Supervisor: Dr. Mark Nieuwenstein

Academic Appointments

01/2020 – Present **Post-doctoral Visiting Fellow**, National Institute of Mental Health (NIMH), Bethesda, USA. Laboratory of Brain & Cognition. Advisor: Dr. Chris Baker

2015 – 2020 **Research Assistant,** Macquarie University, Sydney, Australia
Advisors: Prof. Anina Rich, Prof. Kim Curby, Prof. Richard Stevenson, Dr. Susan Wardle, Dr. Alexandra Woolgar, Dr. Simmy Poonian, Dr. Amanda Robinson, Dr. Matthew Crossley

2017 **Visiting Scholar**, French National Institute for Health and Medical Research (INSERM), Saclay, France. Funded by independent scholarship. Host: Prof Stanislas Dehaene.

Funding

Competitive External Grants

2025 – 2029 *Quantifying Subjective Visual Experiences in the Human Brain*
Swiss National Science Foundation Ambizione Grant.
Role: Sole Investigator. **CHF 985'626**.

Peer-reviewed Publications & Preprints

* = *equal authorship*

1. Jackson, J. B., Rich, A. N., Moerel, D., **Teichmann, L.**, Duncan, J., & Woolgar, A. (2024). Domain general frontoparietal regions show modality-dependent coding of auditory and visual rules. *bioRxiv*, https://doi.org/10.1101/2024.03.04.583318
2. **Teichmann, L.,** Hebart, M. N., Baker, C. I. (2023). Multidimensional object properties are dynamically represented in the human brain. *bioRxiv*. https://doi.org/10.1101/2023.09.08

3. Curby, K. M., **Teichmann, L.,** Peterson, M. A., Shomstein, S. S. (2023). Holistic processing is modulated by the probability that parts contain task-congruent information. *Attention, Perception, & Psychophysics.* https://doi.org/10.3758/s13414-023-02738-w

4. Hebart, M. N.*, Contier, O.*, **Teichmann, L.*,** Rockter, A. H., Zheng, C. Y., Kidder, A., Corriveau, A., Vaziri-Pashkam, M., & Baker, C. I. (2023). THINGS-data, a multimodal collection of large-scale datasets for investigating object representations in human brain and behavior. *Elife*, *12*, e82580. https://doi.org/10.7554/eLife.82580

5. Corriveau, A.*, Kidder, A.*, **Teichmann, L**., Wardle, S., Baker, C. I. (2023). Sustained neural representations of personally familiar people and places during cued recall. *Cortex*, 158, 71-82. https://doi.org/10.1016/j.cortex.2022.08.014

6. **Teichmann, L.***, Moerel, D.*, Rich, A. N., Baker, C. I. (2022). The nature of neural object representations during dynamic occlusion. *Cortex*, 153, 66-86. https://doi.org/10.1016/j.cortex.2022.04.009

7. **Teichmann, L.**, Moerel, D., Baker, C. I., Grootswagers, T. (2022). An empirically-driven guide on using Bayes Factors for M/EEG decoding. *Aperture Neuro*, 1(8) 1-10. https://doi.org/10.52294/ApertureNeuro.2022.2.MAOC6465

8. Curby, K. M., & **Teichmann, L.** (2022). The time course of holistic processing is similar for face and non-face Gestalt stimuli. *Attention, Perception, & Psychophysics*, 84, 1234-1247. https://doi.org/10.3758/s13414-021-02415-w

9. **Teichmann, L.,** Edwards, G., Baker, C. I. (2021). Resolving visual motion through perceptual gaps. *Trends in Cognitive Science,* 25(11), 978-991. https://doi.org/10.1016/j.tics.2021.07.017

10. **Teichmann, L.**, Grootswagers, T., Moerel, D., Carlson, T. A., & Rich, A. N. (2021). Temporal dissocation of neural activity underlying synaesthetic and perceptual colours. *Proceedings of the National Academy of Sciences,* 118(6). https://doi.org/10.1073/pnas.2020434118

11. **Teichmann, L.**, Quek, G. L., Robinson, A. K., Grootswagers, T., Carlson, T. A., & Rich, A. N. (2020). The influence of object-color knowledge on emerging object representations in the brain. *Journal of Neuroscience, 40*(35), 6779-6789. https://doi.org/10.1523/JNEUROSCI.0158-20.2020

12. Wardle, S. G., Taubert, J., **Teichmann, L.**, Baker, C. I. (2020). Rapid and dynamic processing of face pareidolia in the human brain. *Nature Communications, 11*(1), 1-14. https://doi.org/10.1038/s41467-020-18325-8

13. **Teichmann, L.**, Grootswagers, T., Carlson, T. A., & Rich, A. N. (2019). Seeing versus knowing: The temporal dynamics of real and implied colour processing in the human brain. *NeuroImage 200*, 373-381. https://doi.org/10.1016/j.neuroimage.2019.06.062

14. **Teichmann, L.,** Grootswagers, T., Carlson, T. A., & Rich, A. N. (2018). Decoding digits and dice with Magnetoencephalography: Evidence for a shared representation of magnitude. *Journal of Cognitive Neuroscience*, *30*(7), 999-1010. https://doi.org/10.1162/jocn_a_01257

15. Coltheart, M., Cox, R., Sowman, P., Morgan, H., Barnier, A., Langdon, R, Connaughton, E., **Teichmann, L.,** Williams, N., & Polito, V., (2018). Belief, delusion, hypnosis, and the right dorsolateral prefrontal cortex: A transcranial magnetic stimulation study. *Cortex*, *101*, 234-248. https://doi.org/10.1016/j.cortex.2018.01.001

16. **Teichmann, A. L.**, Nieuwenstein, M. R., & Rich, A. N. (2017). Digit-colour synaesthesia only enhances memory for colours in a specific context: A new method of duration thresholds to measure serial recall. *Journal of Experimental Psychology: Human Perception and Performance*, 43(8), 1494-1503. https://doi.org/10.1037/xhp0000402

17. de Wit, B., Badcock,N. A., Grootswagers,T., Hardwick, K., **Teichmann, L.,** Wehrman,J., Williams, M., & Kaplan, D. M. (2017). Neurogaming Technology Meets Neuroscience Education: A Cost-Effective, Scalable, and Highly Portable Undergraduate Teaching Laboratory for Neuroscience. *Journal of Undergraduate Neuroscience Education (JUNE). 15(2): A104-A109. https://pmc.ncbi.nlm.nih.gov/articles/PMC5480837/*

18. **Teichmann, A. L**., Nieuwenstein, M. R., & Rich, A. N. (2015). Red, green, blue equals 1, 2, 3: Digit-color synesthetes can use structured digit information to boost recall of color sequences. *Cognitive Neuroscience*, *6*(2-3), 100-110. https://doi.org/10.1080/17588928.2015.1056519

Selected Conference Presentations

Last 6 years, first/presenting author only

2024	Talk	**International Conference on Biomagnetism (BIOMAG).** Sydney, Australia. *The temporal dynamics of individual colour-space geometries in the human brain.*
2024	Talk	**Vision Science Society Annual Meeting (VSS)**. St Pete, FL, USA. *The temporal dynamics of individual colour-space geometries in the human brain.*
2023	Poster	**Society for Neuroscience (SfN).** Washington D.C., USA. *The emergence of individual colour-space geometries in the human brain.*
2023	Talk	**MEG North America.** Bethesda, USA. *Temporal signatures of multidimensional object properties in the human brain.*
2023	Poster	**Organization for Human Brain Mapping (OHBM).** Montreal, Canada. *The temporal evolution of colour-space geometries in the human brain.*
2022	Talk	**Society for Neuroscience (SfN).** San Diego, USA. *How behaviorally-relevant object dimensions unfold over time during visual processing.*
2022	Talk	**European Conference on Visual Perception (ECVP).** Nijmegen, The Netherlands. *Visual integration plays a critical role when processing motion through periods of occlusion.*
2022	Talk	**Organization for Human Brain Mapping (OHBM).** Glasgow, Scotland. *The temporal dynamics underlying behaviorally-relevant object properties during visual perception.*
2022	Talk	**Vision Science Society Annual Meeting (VSS)**. St Pete, FL, USA. *The temporal dynamics of object representation during dynamic occlusion.*
2021	Poster	**Virtual Vision Science Society Annual Meeting (v-VSS)**. St Pete, FL, USA. *How are objects represented during dynamic occlusion?*

Invited Talks

09/2024	Queensland Brain Institute & University of Queensland, Brisbane, Australia
09/2024	Perception in Action Research Centre, Macquarie University, Australia
08/2024	MARCS Institute, University of Western Sydney, Australia
08/2022	MRC Cognition and Brain Sciences Unit, University of Cambridge, UK
08/2022	Department of Cognitive Neuroscience, University of Maastricht, the Netherlands
06/2022	Visual and Cognitive Neuroscience Lab, University of Fribourg, Switzerland
06/2022	Brain Mind Institute, Swiss Federal Institute of Technology, Lausanne, Switzerland

06/2022	Applied Face Cognition Lab, University of Lausanne, Switzerland
06/2022	Vision and Cognition Lab, University of Tubingen, Germany
12/2021	Brain Dynamics Lab, University of Salzburg, Salzburg, Austria
03/2021	Fellows Afternoon Neuroscience Seminar, NIMH, Bethesda, USA
11/2018	Donders Institute for Brain, Cognition, and Behaviour, Nijmegen, the Netherlands
06/2018	Parvizi Lab, Stanford University, Palo Alto, USA
05/2018	Kanwisher Lab, the Massachusetts Institute of Technology (MIT), Cambridge, USA
05/2018	Harvard Vision Lab, Harvard University, Cambridge, USA
01/2017	French National Institute for Health and Medical Research (INSERM), Saclay, France
01/2017	Department of Experimental Psychology, University of Groningen, the Netherlands

Mentorship

2023-2025	Nellie Simmonds, Post-baccalaureate Fellow, National Institute of Mental Health
2022-2025	Sebastian Montesinos, Post-baccalaureate Fellow, National Institute of Mental Health
2021-2022	Kyle Behel, Post-baccalaureate Fellow, National Institute of Mental Health

Teaching Experience

2022 **Introduction to Bayes Factors for time-resolved decoding**
MEG Core, NIMH, Bethesda, USA
Level: Post-baccalaureate and post-doctoral students
Role: Guest lecture & practical demo

2021 **Deep Learning Summer School**
Neuromatch Academy, global & virtual initiative
Level: mostly postgraduate students and postdocs
Role: supervised 5 groups of ~6 students to develop their own research project

2021 **Introduction to Magnetoencephalography**
Section on Learning & Plasticity, NIMH, Bethesda, USA
Level: Post-baccalaureate and post-doctoral students
Role: Guest lecture in summer series (5-10 students)

2016 – 2019 **Introduction to Cognitive and Brain Sciences (COGS100)**
Macquarie University, Sydney, Australia
Unit Chair: Prof Mark Williams
Level: First-year undergraduate students
Role: Co-developed practical content and led weekly classes of 25-30 students

2016 **Delusions and Disorders of the Mind and Brain (COGS101)**
Macquarie University, Sydney, Australia
Unit Chair: Prof Anne Castles
Level: First-year undergraduate students
Role: Led weekly classes of 25-30 students

2015 – 2016 **Appetite – The Psychology of Eating and Drinking (PSYC352)**
Macquarie University, Sydney, Australia
Unit Chair: Richard Stevenson
Level: Third-year undergraduate students
Role: Led weekly classes of 25-30 students

Awards & Scholarships

2025 NIH Fellows Award for Research Excellence
for recognition of outstanding scientific research by intramural trainees [USD $1,500]

2024 NIMH Intramural Research Program Julius Axelrod Memorial Fellowship Award
for excellence in basic research [USD $12,500]

2022 Abstract Merit Award, Organization for Human Brain Mapping (OHBM)
awarded to highest ranking trainee abstract submissions [USD $2,000]

2018 Macquarie University Higher Degree Research Excellence Award, Faculty of Human Sciences
awarded for excellence in scholarly research [AUD $1,500]

2018 Australasian Cognitive Neuroscience Society (ACNS) Student Travel Award
competitive travel award [AUD $250]

2018 Postgraduate Research Fund Faculty of Human Sciences, Macquarie University. *competitive travel award* [AUD $5,000]

2017 Student Exchange Award, Australian Research Council Centre of Excellence in Cognition and its Disorders.
competitive visiting scholar program [AUD $12,500]

2017 Poster Award, ARC Centre of Excellence in Cognition and its Disorders
awarded for best annual workshop PhD poster [AUD $500]

2016 Outstanding 2015 Student Publication, ARC Centre of Excellence in Cognition and its Disorders Excellence
awarded for best student publication [AUD $1,000]

2015 – 2019 International Macquarie University Research Training Program Scholarship
competitive postgraduate research scholarship [AUD $~110,000]

2015 Poster Award, ARC Centre of Excellence in Cognition and its Disorders
awarded for best annual workshop postgraduate poster [AUD $500]

2013 / 2014	Marco Polo Travel Grant, University of Groningen. *competitive travel grant for overseas studies* [2 x 500 €]

References

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