

Micah Allen, PhD
Cambridge Psychiatry
Douglas House, Cambridge University
Cambridge, 18D Trumpington Road, CB2 8AH

Tel: +44 07473513511
Email: micah.allen@medschl.cam.ac.uk
Web: micahallen.org
Twitter: @micahgallen

ACADEMIC POSITIONS

2019- Visiting Professor, Cambridge Psychiatry
2019- Associate Professor, Department of Clinical Medicine, Aarhus University
2018-2019 Research Associate, Cambridge Psychiatry
2013-2018 Research Associate, Wellcome Centre for Human Neuroimaging, UCL
2012-2013 Postdoc, CFIN, Aarhus University Hospital

EDUCATION

2009-2012 PhD in Health Neuroscience, Aarhus University
2008-2009 MA in Philosophy and Cognitive Science, University of Hertfordshire
2004-2008 BSc in Experimental Psychology, University of Central Florida

RESEARCH FUNDING & AWARDS

2018-2023	Lundbeck Fellowship. The Visceral Mind: An Embodied Approach to Computational Psychiatry (PI)	10,000,000 DKK
2018-	AIAS-COFUND Junior Fellowship (PI)	3,500,000 DKK
2012-2013	Transitional Postdoctoral Fellowship, Aarhus University Research Foundation	150,000 DKK
2012	Henry Award for Outstanding Outreach	5,000 DKK
2011	Travel Award for 6 months visit to UCL visit, Aarhus University, Dept. Clinical Medicine.	60,000 DKK
2010-2012	Varela Award: "Meta-cognitive monitoring as a mechanism for adaptive change". Mind & Life Organization. (PI)	15,000 USD
2009	3 year PhD Scholarship, Aarhus University, Dept. Clinical Medicine.	1,650,000 DKK

PUBLICATIONS

Published Articles

**indicates shared first author*

1. **Allen, M.** (2018). The Foundation: Mechanism, Prediction, and Falsification in Bayesian Enactivism: Comment on "Answering Schrödinger's question: A free-energy formulation" by Maxwell James Désormeau Ramstead et al. ***Physics of Life Reviews***.
2. Carey, D., Caprini, F., **Allen, M.**, Lutti, A., Weiskopf, N., Rees, G., ... Dick, F. (2018). Quantitative MRI provides markers of intra-, inter-regional, and age-related differences in young adult cortical microstructure. ***NeuroImage***.
3. Hauser, T. U., **Allen, M.**, Rees, G., & Dolan, R. J. (2017). Metacognitive impairments extend perceptual decision-making weaknesses in compulsivity. ***Scientific Reports***.
4. *Hauser, T. U., ***Allen, M.**, Purg, N., Moutoussis, M., Rees, G., & Dolan, R. J. (2017). Noradrenaline blockade specifically enhances metacognitive performance. ***eLife***, 6, e24901.
5. Fardo, F., Vinding, M. C., **Allen, M.**, Jensen, T. S., & Finnerup, N. B. (2017). Delta and gamma oscillations in operculo-insular cortex underlie innocuous cold thermosensation. ***Journal of Neurophysiology***.

6. Fardo, F., Auksztulewicz, R., **Allen, M.**, Dietz, M. J., Roepstorff, A., & Friston, K. J. (2017). Expectation violation and attention to pain jointly modulate neural gain in somatosensory cortex. *NeuroImage*.
7. ***Allen, M.**, *Frank, D., Glen, J. C., Fardo, F., Callaghan, M. F., & Rees, G. (2017). Insula and somatosensory cortical myelination and iron markers underlie individual differences in empathy. *Scientific Reports*, 7, 43316.
8. **Allen, M.**, Glen, J. C., et al (2017). Metacognitive ability correlates with hippocampal and prefrontal microstructure. *NeuroImage*, 149, 415–423. **[4 citations]**.
9. Kumar, S., Tansley-Hancock, O., Sedley, W., Winston, J. S., Callaghan, M. F., **Allen, M.**, ... Griffiths, T. D. (2017). The Brain Basis for Misophonia. *Current Biology*, 27(4), 527–533. **[15 citations]**.
10. **Allen, M.**, Frank, D., Schwarzkopf, D. S., Fardo, F., Winston, J. S., Hauser, T. U., & Rees, G. (2016). Unexpected arousal modulates the influence of sensory noise on confidence. *eLife*, 5, e18103. **PMCID: PMC5079750. [28 citations]**.
11. **Allen, M.**, & Friston, K. J. (2016). From cognitivism to autopoiesis: towards a computational framework for the embodied mind. *Synthese*, 1–24. **[22 citations]**.
12. **Allen, M.**, Fardo, F., Dietz, M. J., Hillebrandt, H., Friston, K. J., Rees, G., & Roepstorff, A. (2016). Anterior insula coordinates hierarchical processing of tactile mismatch responses. *NeuroImage*, 127, 34–43. **[28 citations]**.
13. Gallagher, S., & **Allen, M.** (2016). Active inference, enactivism and the hermeneutics of social cognition. *Synthese*, 1–22. **[18 citations]**.
14. Fardo, F., **Allen, M.**, Jegindø, E.-M. E., Angrilli, A., & Roepstorff, A. (2015). Neurocognitive evidence for mental imagery-driven hypoalgesic and hyperalgesic pain regulation. *NeuroImage*, 120, 350–361. **[9 citations]**
15. **Allen, M.**, Smallwood, J., Christensen, J., Gramm, D., Rasmussen, B., Gaden Jensen, C., ... Lutz, A. (2013). The balanced mind: the variability of task-unrelated thoughts predicts error-monitoring. *Frontiers in Human Neuroscience*, 7. **[46 citations]**
16. **Allen, M.**, Dietz, M., Blair, et al. (2012). Cognitive-Affective Neural Plasticity following Active-Controlled Mindfulness Intervention. *Journal of Neuroscience*, 32(44), 15601–15610. **[160 citations]**.
17. Tylen, K., **Allen, M.**, Hunter, B. K., & Roepstorff, A. (2012). Interaction vs. observation: distinctive modes of social cognition in human brain and behavior? A combined fMRI and eye-tracking study. *Frontiers in Human Neuroscience*, 6. **[30 citations]**
18. Ma, Y., Bang, D., Wang, C., **Allen, M.**, Frith, C., Roepstorff, A., & Han, S. (2012). Sociocultural patterning of neural activity during self-reflection. *Social Cognitive and Affective Neuroscience*, nss103. **[63 citations]**
19. **Allen, M.**, & Williams, G. (2011). Consciousness, Plasticity, and Connectomics: The Role of Intersubjectivity in Human Cognition. *Frontiers in Psychology*, 2. **[38 citations]**.

Preprints

1. **Allen, M.**, Fardo, F., Dietz, M., Hillebrandt, H. F., Rees, G., & Roepstorff, A. (2015). Evidence for embodied predictive coding: the anterior insula coordinates cortical processing of tactile deviancy. Preprint. *PeerJ*. <https://peerj.com/preprints/1203>
2. Carey, D., Caprini, F., **Allen, M.**, et al. . (2017). Quantitative MRI Provides Markers Of Intra-, Inter-Regional, And Age-Related Differences In Young Adult Cortical Microstructure. Preprint. *bioRxiv*, 139568. <https://doi.org/10.1101/139568>

Book Chapters

1. Allen, M., & Manos Tsakiris. (In Press). The Body as First Prior: Interoceptive Predictive Processing and the Primacy of Self-Models. In *M. Tsakiris & H.D. Preeset (Eds.), The Interoceptive Mind: from Homeostasis to Awareness*. Oxford, UK: Oxford University Press.
2. Tylén, K., & Allen, M. (2009). Interactive sense-making in the brain. In *Enacting Intersubjectivity: Paving the Way for a Dialogue Between Cognitive Science, Social Cognition and Neuroscience*, 224-241. **[6 citations]**.

INVITED PRESENTATIONS (SELECTED)

20+ invited lectures at international symposia and conferences

1. Allen, M. *Towards in vivo histology. Mapping inter-individual differences in brain microstructure*. Symposium. Cardiff University Brain Imaging Centre. Cardiff University, Cardiff, UK. 2017.
2. Allen, M. *Towards a Computational Embodied Mind: How Interoceptive Predictions Shape Visual Awareness*. Interacting Minds in Collaboration. Interacting Minds Centre, Aarhus University, Aarhus, Denmark. 2017.
3. Allen, M. *Embodied predictive coding and metacognitive awareness*. Association for the Scientific Study of Consciousness. Symposium. Buenos Aires, Argentina, 2016.
4. Allen, M. *A brief introduction to predictive coding*. Seminar, Psychology Department, York University, York, UK. 2016.
5. Allen, M. *How the body shapes the mind: a predictive coding approach to embodied metacognition*. Seminar, Cambridge University, Department of Psychology. Cambridge, UK. 2016.
6. Allen, M. *Prediction, Interoception, and Metacognition*. Symposium. Hearing The Voices: Prediction and Hallucination Workshop, Durham University, Durham, UK. 2016.
7. Allen, M. *Gain control and feelings of confidence – an embodied predictive coding approach*. Seminar at Amsterdam Brain and Cognition Unit, Amsterdam University, 2016.
8. Allen, M. *Confidence as global gain: mapping the cognitive, physiological, and neural impact of sensory noise*. Seminar at UCL Psychology Department, UCL, London, UK. 2016.

9. Allen, M. *What can the brain reveal about consciousness?*. Public lecture. Edinburg Science Festival 2015.
10. Allen, M. *Introspective inference? A Bayesian Approach to Embodied Self-Awareness*. Invited 'Connex' Seminar, Université Libre de Bruxelles, Brussels, Belgium. 2015.

TEACHING AND SUPERVISION

Invited Student Lectures

1. Allen, M. "Introspection & Metacognition". Guest Lectures at the Undergraduate Certificate Course in Cognitive Psychology. Cambridge Institute of Continuing Education. 2017.
2. Allen, M. "Towards an embodied cognitive neuroscience". Current Issues in Cognitive Neuroscience II: Elaborative & Adaptive Processes. ICN Cognitive Neuroscience MSc Seminar, 2017.
3. Allen, M. "An embodied predictive coding approach to metacognitive awareness." ICN Cognitive Neuroscience MSc Seminar, 2016.
4. Allen, M. "Embodiment and Meta-Representation: A Computational Neuroscience Approach". Aarhus University BSc in Cognitive Science Seminar, 2016.

Student Supervision

1. Thomas Schaffhauser. *A stochastic detection and retrieval model for the study of metacognition*. Dual MSc thesis in Brain and Mind Sciences at UCL. 2016-2017.
2. Darya, Frank. *Arousal induced biases in metacognitive confidence*. MSc thesis in Cognitive Neuroscience, Institute of Cognitive Neuroscience, UCL. 2015-2016.
3. Maria Niedernhuber. *Neural mechanisms of attention and expectation in chronic pain*. Co-supervised PhD thesis in Cognitive Neuroscience with Dr. Tristan Bekinschtein. Cambridge University. 2016-2018.
4. Calum Glen. *Noise-induced bias in metacognition*. Supervised research assistant. Institute of Cognitive Neuroscience, UCL. 2015-2016.
5. Daniel Gramm Christensen. *Neuroplasticity and cognitive-affective training*. Supervised Research Assistant. Aarhus University. 2011-2012.
6. Beinta M. Rasmussen. *Neuroplasticity and cognitive-affective training*. Supervised Research Assistant. Aarhus University. 2011-2012.
7. Joanna Christensen. *Neuroplasticity and cognitive-affective training*. Supervised MSc thesis. Msc in Biomedical Engineering, Aarhus University. 2011-2012.
8. Jesper Meyhoff Jensen. *Neuroplasticity and cognitive-affective training*. Supervised MSc thesis. Msc in Biomedical Engineering. Aarhus University. 2011-2012.

PROFESSIONAL ACTIVITIES

Grant Reviewing

Swiss National Science Foundation.

Journal Reviewing

Open record at: <https://publons.com/author/1269405/micah-allen#profile>

PNAS, Brain, Cerebral Cortex, Biological Psychiatry, Current Biology, Journal of Neuroscience, eLife, Neuroimage, Cortex, Social Cognitive and Affective Neuroscience, Perspectives in Psychological Science, Acta Physiologica, Consciousness and Cognition, Developmental Cognitive Neuroscience, Neuroscience of Consciousness.

Professional Societies

Association for the Scientific Study of Consciousness (ASSC)

Society for Neuroscience (SFN)

Cognitive Neuroscience Society (CNS)

Organization for Human Brain Mapping (OHBM)

IMPACT AND OUTREACH

See <https://profiles.impactstory.org/u/0000-0001-9399-4179> for summary

- ❖ Ranked in top 10% global reach for research impact
- ❖ 5 publications ranked top 1% all-time impact by Altmetric
- ❖ 13 publications ranked top 5% all-time impact by Altmetric
- ❖ 25,000 followers <https://twitter.com/neuroconsciousness>; 1,000,000 monthly views
- ❖ Guest author for *The Conversation*, *PLOS Neuroscience*, and regular blog posts at <https://micahallen.org/blog-neuroconsciousness/>