

A/Prof. Mangor Pedersen



**AUT BRAIN HEALTH
RESEARCH INSTITUTE**



Research focus

Mangor is Head of Department - Psychology and Neuroscience at AUT and Associate Head of Research at the School of Clinical Sciences. His research focuses on advanced neuroimaging techniques, including EEG and MRI, to map and analyse human brain networks. His work integrates artificial intelligence, complex network science, and dynamical systems theory to better understand brain dysfunction, including changes in brain networks following mild traumatic brain injury. He also applies these approaches to epilepsy, developing new tools to characterise brain network dynamics and improve understanding of neurological disorders. Mangor leads the AI component of the Australian Epilepsy Project.

Current projects

1. The Australian Epilepsy Project (AEP)
2. Women's Health and Neuroscience Research Programme

Examples of recent work

McGeown, J. P., **Pedersen, M.**, Mito, R., Theadom, A., Maller, J. J., Condrón, P., & Holdsworth, S. J. (2026). Neuroimaging correlates of symptom burden and functional recovery following mild traumatic brain injury: A systematic review. *NeuroImage: Clinical*, 49.

Lee, J. M., Pardoe, H. R., Parker, D. M., **Pedersen, M.**, Makdissi, M., Abbott, D. F., ... Mito, R. (2026). Structural brain differences in professional Australian rules footballers following mild traumatic brain injury: When head size matters. *Frontiers in Neurology*, 17.

Positions

Head of Department,
Psychology and Neuroscience
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