

CURRICULUM VITAE PUBLICATIONS

WICKLIFFE CARSON ABRAHAM

(a) Books

Abraham, W.C., Corballis, M. and White, K.G., eds. *Memory Mechanisms - A Tribute to G.V. Goddard*. Hillsdale: Lawrence Erlbaum Associates (1991) 373p.

(b) Book Chapters

Hegemann, R.U. & Abraham, W.C. (2019). Electrophysiological investigation of metabotropic glutamate receptor-dependent metaplasticity in the hippocampus. In Burger C. & Velardo, J. (eds). *Glutamate Receptors: Methods and Protocols*, vol 1941 (pp. 79-91). Humana Press, New York, NY.

Hegemann, R.U., Mockett, B.G., Ireland, D.R., & Abraham, W.C. (2017). Metaplasticity. In Stein J. (ed.). Reference module in neuroscience and biobehavioral psychology (pp. 8). Elsevier. ISBN 9780128093245

Eckert, M.J. & Abraham, W.C. (2013). Effects of environmental enrichment exposure on synaptic transmission and plasticity in the hippocampus. In Belzung C. & Wigmore, P. (eds). *Current topics in behavioral neurosciences: Vol. 15. Neurogenesis and neural plasticity* (pp. 165-188). Berlin Heidelberg: Springer Verlag.

Ireland, D.R., Mockett, B., & Abraham, W.C. (2009). Metaplasticity. in Squire, L.R. (ed-in-chief). *Encyclopedia of Neuroscience* (pp. 819-826). publisher. Oxford: Academic Press. **invited review**.

Greenwood, J., Curtis, P., Logan, B., Abraham, W. & Dragunow, M. (2004). Immediate-early genes. In Riedel, G. & Platt, B. (eds). *From messengers to molecules: Memories are made of these* (pp. 506-511). Georgetown, Texas: Plenum Publishers.

Abraham, W.C. (2004). How long will long-term potentiation last? In Bliss, T.V.P., Collingridge, G.L., & Morris, R.G.M. (eds). *Long-term potentiation* (pp. 211-228). Oxford: Oxford University Press.

Abraham, W.C. (2000). Persisting with LTP as a memory mechanism: Clues from variations in LTP maintenance. In Hölscher, C. (ed.). *Neuronal mechanisms of memory formation: Concepts of long-term potentiation and beyond* (pp. 37-57). Cambridge: Cambridge University Press.

Philpot, B.D., Bear, M.F. & Abraham, W.C. (1999). Metaplasticity: the plasticity of synaptic plasticity. In Katz, P. (ed.), *Beyond neurotransmission: neuromodulation and its importance for information processing* (pp. 160-197). Oxford: Oxford University Press.

Abraham, W.C. (1996) Activity-dependent regulation of synaptic plasticity (metaplasticity) in the hippocampus. In *The Hippocampus: Functions and Clinical Relevance*. N. Kato ed. Amsterdam, Elsevier Science B.V. 15-26.

Abraham, W.C., Bilkey, D.K. and Kairiss, E.K. (1991) Long-term potentiation and local circuits in the hippocampus. In W.C. Abraham, M. Corballis and K.G. White eds. *Memory mechanisms - a tribute to G.V. Goddard*. Hillsdale, Lawrence Erlbaum Associates. 59-78.

Abraham, W.C. and Otani, S. (1991) Macromolecules and the maintenance of long-term potentiation. In F. Morrell ed. *Kindling and synaptic plasticity*. Boston, Birkhauser 92-109.

Goddard, G.V., Kairiss, E.W., Abraham, W.C. and Bilkey, D.K. (1988) Long-term potentiation of feed-forward inhibition in the hippocampus: extracellular evidence. In *Synaptic plasticity in the hippocampus*. H. L. Haas and G. Buzsaki eds. Berlin, Springer-Verlag 3-5.

Abraham, W.C. and Kairiss, E.W. (1988) NMDA receptor control of spontaneous complex spike discharge in hippocampal pyramidal cells. In *Synaptic plasticity in the hippocampus*. H.L. Haas and G. Buzsaki eds. Berlin, Springer-Verlag 35-37.

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(c) Refereed Journal Articles

Ryan, M., Tan, V.T.Y., Thompson, N., Guévremont, D., Mockett, B.G., Tate, W.P., Abraham, W.C.#, Hughes, S.M.#, & Williams, J.# (2021). Lentivirus-mediated expression of human secreted amyloid precursor protein-alpha promotes long-term induction of neuroprotective genes and pathways in a mouse model of Alzheimer's disease. *Journal of Alzheimer's Disease*, 79, 1075-1090. #Equal last author.

Kyrke-Smith, M., Logan, B., Abraham, W.C., & Williams, J.M. (2021). Bilateral histone deacetylase activity and enrichment at unique genes following induction of long-term potentiation in vivo. *Hippocampus*, 31, 389-407.

Hegemann, R.U. & Abraham, W.C. (2021). Postsynaptic cell firing triggers bidirectional metaplasticity depending on the LTP induction protocol. *Journal of Neurophysiology*, 125, 1624-1635.

Guévremont, D., Tsui, H., Knight, R., Fowler, C.J., Masters, C.L., Martins, R.N., Abraham, W.C., Tate, W.P., Cutfield, N.J., & Williams, J.M. (in press). Plasma microRNA vary in association with the progression of Alzheimer's disease. *Alzheimers & Dementia: Diagnosis, Assessment and Disease Monitoring*,

Abraham, W.C., Geffen, L., McLachlan, E.M., Richards, L.J., & Rostas, J.A.P. (in press). A brief history of the Australasian Neuroscience Society. *Journal of the History of the Neurosciences*. Sateesh, S., & Abraham, W.C. (2021). Neurophysiological and molecular approaches to understanding the mechanisms of learning and memory. *Journal of the Royal Society of New Zealand*, 51, 4-23. Invited review.

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Tan, V.T.Y., Mockett, B.G., Ohline, S.M., Parfitt, K.D., Wicky, H.E., Peppercorn, K., Schoderboeck, L., Yahaya, M.F., Tate, W.P., Hughes, S.M.*., & Abraham, W.C.* (2018). Lentivirus-mediated expression of human secreted amyloid precursor protein-alpha prevents development of memory and plasticity deficits in a mouse model of Alzheimer's disease. *Molecular Brain*. 11(1):7. doi: 10.1186/s13041-018-0348-9 *, shared final authorship.

Bergin, D.H., Jing, Y., Mockett, B.G., Zhang, H., Abraham, W.C., Liu, P. (2018). Altered plasma arginine metabolome precedes behavioural and brain arginine metabolomic profile changes in the APPswe/PS1ΔE9 mouse model of Alzheimer's disease. *Translational Psychiatry*. 8:108 DOI 10.1038/s41398-018-0149-z

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