

Selected Publications

Engholm-Keller, K, Waardenberg, A, Müller, J, Wark, J, Fernando, R, Arthur, J, Robinson, P, Dietrich, D, Schoch, S & **Graham, M** 2019, 'The temporal profile of activity-dependent presynaptic phospho-signalling reveals long lasting patterns of post-stimulus regulation', PLOS Biology, 7(3), e3000170 doi: 10.1371/journal.pbio.3000170

Cohen, SB, **Graham, ME**, Lovrecz, GO, Bache, N, Robinson, PJ, Reddel, RR 2007, 'Protein composition of catalytically active human telomerase from immortal cells', Science, vol. 315, no. 5820, pp. 1850-1853 doi: 10.1126/science.1138596

Tan, T, Valova, V, Malladi, C, **Graham, M**, Berven, L, Jupp, O, Hansra, G, McClure, S, Sarcevic, B, Boadle, R, Larsen, M, Cousin, M et al. 2003, 'Cdk5 is essential for synaptic vesicle endocytosis', Nature Cell Biology, vol. 5, no. 8, pp. 701-710 doi: 10.1038/ncb1020

Graham, ME, Anggono, V, Bache, N, Larsen, MR, Craft, GE & Robinson, PJ 2007, 'The in Vivo Phosphorylation Sites of Rat Brain Dynamin I', Journal of Biological Chemistry, vol. 282, no. 20, pp. 14695-14707 doi:10.1074/jbc.m609713200

Bevilaqua, LRM, **Graham, ME**, Dunkley, PR, Nagy-Felsobuki, Elv & Dickson, PW 2001, 'Phosphorylation of Ser19 Alters the Conformation of Tyrosine Hydroxylase to Increase the Rate of Phosphorylation of Ser40', Journal of Biological Chemistry, vol. 276, no. 44, pp. 40411-40416 doi:10.1074/jbc.m105280200

Bonn Lecture Series in Neuroscience



Simplifying complex phospho-signalling in two experimental models of brain activity: the presynapse and epilepsy

Dr. Mark Graham

Group Leader of Synapse Proteomics
Children's Medical Research Institute, Australia

Monday, June 17, 2019, 5.00 pm
Clinic for Epileptology, Conference room,
Ground Floor

Phosphorylation-based signalling in neurons is immensely complex. However, large-scale phosphoproteomics data analysis can reveal patterns of signalling, co-regulated pathways, allow the prediction of protein kinase activity and unbiased identification of the major substrates of phospho-signalling. This approach will be demonstrated from analysis of stimulated presynaptic terminals and a mouse model of epilepsy.