

List of Publications

Staff : **LOW CHIAN MING**

Department : **ANAESTHESIA**

1. Low, C-M., Zheng, F., Lyuboslavsky P. and Traynelis, S.F. (2000) Molecular determinants of coordinated proton and zinc inhibition of NMDA NR1/NR2A receptors. *Proc.Natl.Acad.Sci.*97:11062-11067. (JCR2010 IF=9.771)
2. Zheng, F., Erreger, K., Low, C-M., Banke, T., Lee, C.J., Conn, J.P. and Traynelis, S.F. (2001). Allosteric interaction between the amino terminal domain and the ligand binding domain of NR2A. *Nature Neurosci.*4:894-901. (JCR2010 IF=14.191)
3. Low, C-M., LyuboslavskyP., French, A., Le P., WyatteK., Thiel,W.H., Marchan, E., Igarashi, K., Kashiwagi, K., Gernert, K., Williams, K., Traynelis, S.F., Zheng, F. (2003). Structural determinants of proton sensitive NMDA receptor gating. *Mol. Pharmacol.*63:1212-1222. (JCR2009 IF=4.725)
4. Wee, K.S-L., Zhang, Y., Khanna, S. and Low, C-M. (2008). Immunolocalization of NMDA receptor subunit NR3B in selected structures in the rat forebrain, cerebellum and lumbar spinal cord. *J. Comp. Neurol.*509:118-135. (; JCR2010 IF=3.774)
5. Wee, X-K., Ng, K-S., Leung, H-W., Cheong, Y-P., Kong, K.H., Ng, F-M., Soh, W-Q., Lam, Y.L. and Low, C-M. (2010). Mapping the high-affinity binding site of 5¹-substituted benzimidazoles to the amino-terminal domain of NR2B subunit of NMDA receptor. *Br.J.Pharmacol.* 159:449-461. (JCR2010 IF=4.925).
6. Ariffin, M.Z., Jiang, F., Low, C-M.and Khanna S (2010). Nicotinic receptor mechanisms in supramammillary nucleus mediate physiological regulation of neural activity in dorsal hippocampal field CA1 of anaesthetized rat. *Hippocampus*20:852-865 (JCR2009 IF=4.609).
7. Wee, K.S-L., Wee, A.Z-N., Chow, N.B-H and Low, C-M. (2010). The distal carboxyl terminal of rat NR3B subunit regulates NR1-1a/NR3B and NR1-2a/NR3B surface trafficking. *Neurochem. Int.*57:97-101 (JCR2010 IF=3.601).
8. Low, C-M and Wee, K.S-L. (2010). New insights into the not-so-new NR3 subunits of N-methyl-D-aspartate receptor: Localization, structure and function. *Mol. Pharmacol.*78:1-11 (Invited review) (JCR2010 IF=4.725).

9. Liu, E.H-C., Li, C., Govindasamy M., Neo, H.J., Lee, T-L, Low, C-M.and Tachibana, S. (2012). Elevated prepronociceptin, nociceptin/orphanin FQ and nocistatin concentrations in rat chronic constriction nerve injury and diabetic neuropathic pain models. *Neurosci Letts.* 506:104-106 (JCR2010 IF=2.055).
10. Sundaram, J.R., Chan, H.H.E, Poore, C.P., Pareek, T., Cheong, W.F., Shui, G., Tang, N., Low, C-M., Wenk, M. and Kesavapany, S. (2012). Cdk5/p25-induced cytosolic PLA2-mediated lysophosphatidylcholine production regulates neuroinflammation and triggers neurodegeneration. *J Neurosci*32:1020-1034 (JCR2010 IF=7.271).
11. Ng, K-S., Leung H-W., Wong, P.T-H. and Low, C-M. (2012). Cleavage of the NR2B subunit amino terminus of N-methyl-D-aspartate (NMDA) receptor by tissue plasminogen activator: Identification of the cleavage site and characterization of ifenprodil and glycine affinities on truncated NMDA receptor. *J BiolChem*287:25520-25529 (JCR2010 IF=5.328).
12. Ariffin, Z.M., Chang, L-S., Koh, H-C., Low, C-M.and Khanna, S. (2013). An environment-dependent modulation of cortical neural response by forebrain cholinergic neurons in awake rat. *Brain Res.*1513:72-84 (JCR2012 IF=2.728).
13. Tay, A.S., Liu, E.H., Lee, T.L., Miyazaki, S., Nishimura, W., Minami, T., Low, C-M. and Tachibana, S. (2013). Cerebrospinal fluid of postherpetic neuralgia patients induced interleukin-6 release in human glial cell-line T98G. *Neurochem. Int.*63:517-521 (JCR2012 IF=2.857).
14. Kuswanto, C.N., Sum, M.Y., Thng, C.R.Z., Zhang, Y.B., Yang, G.L., Nowinski, W.L., Sitoh, Y.Y., Low, C-M.and Sim, K. (2013). GRIN2B gene and associated brain cortical white matter changes in bipolar disorder: A preliminary combined platform investigation. *Biomed. Res. Int.*2013: 635131 (JCR2012 IF=2.880).
15. Yong, S-M., Lim, M-L, Low, C-M.and Wong, B-S. (2014). Reduced neuronal signaling in the ageing apolipoprotein-E4 targeted replacement female mice. *Sci Rep.*4:6580 (JCR2013 IF=5.078).
16. Yuan, H., Low, C-M., Moody, O.A., Jenkins, A. and Traynelis, S.F. (2015). Ionotropic GABA and glutamate receptor mutations and human neurologic diseases. *Mol.Pharmacol.* 88:203-217 (JCR2011 IF=4.725).
17. Ang, S.T., Lee, A.T., Foo, F.C., Ng, L., Low, C-M.and Khanna, S. (2015). GABAergic neurons of the medial septum play a nodal role in facilitation of nociception-induced affect. *Sci Rep.* 5:15419 (JCR2014 IF=5.078).

18. Wee, K.S-L., Tan, F.C.K., Cheong, Y-P., Khanna, S. and Low, C-M.. (2016). Ontogenic profile and synaptic distribution of NR3 proteins in the rat brain and hippocampal neurons. *Neurochem. Res.* 41(1), 290-297. (JCR2014 IF=2.593).
19. Perszyk, R.E., DiRaddo, J.O., Strong, K.L., Low, C-M., Ogden, K.K., Khatri A., Vargish, G.A., Pelkey, K.A., Tricoire, L., Liotta, D.C., Smith, Y., McBain, C.J. and Traynelis, S.F. (2016). GluN2D-containing NMDA receptors mediate synaptic transmission in hippocampal interneurons. *Mol. Pharmacol.* (in press) doi:10.1124/mol.116.105130 (JCR2011 IF=4.725).
20. Ng, C.Y., Kwok, T.X.W., Tan, F.C.K., Low, C-M* and Lam, Y* (2017). Fluorogenic probes to monitor cytosolic phospholipase A2 activity. *Chem. Comms.* 53:1813-1816 (JCR2016 IF=6.567).
21. Ariffin, M.Z., Low, C-M., Khanna, S.* (2017). Medial septum modulates cellular responses induced in hippocampus on microinjection of cholinergic agonists into hypothalamic supramammillary nucleus. *Front Neuroanat.* 11:79 (IF=3.267)
22. Ng, C.Y., Kannan, S., Chen, Y.J., Tan, F.C.K, Ong, W.Y., Go, M.L., Verma, C.S.*, Low, C-M.* and Lam, Y.* (2017). A new generation of arachidonic acid analogues as potential neurological agent targeting cytosolic phospholipase A2. *Sci. Rep.* 7:13683. (JCR2016 IF=4.259).
23. Ariffin, M.Z., Ibrahim, K., Ang, S.T., Lee A.T-H., Thong, H.K., Lee, R.Z., Poon, S.Y., Liu, E.H-C., Low, C-M., Khanna, S.* (2018) Forebrain medial septum is a CNS substrate for sustaining experimental neuropathic pain. *Sci. Rep.* 8:11892 (JCR2016 IF=4.259).
24. Myers SJ, Yuan H, Kang JQ, Tan F.C.K., Traynelis S.F. and **Low C-M.*** (2019). Distinct roles of GRIN2A and GRIN2B variants in neurological conditions. *F1000Research* 2019, 8(F1000 Faculty Rev):1940 (<https://doi.org/10.12688/f1000research.18949.1>)
25. Chin, A-L. , Yang, S-M., Chen, Li, M-T., T-T., Chen, Y-J., Lee. T-K., Petibois, C., Cai X., **Low, C-M.**, Tan, F.C.K., Teo, A., Tok, E.S., Ong, E.B.L., Lin, Y-Y., Lin, I-J., Tseng, Y-C., Chen, N-Y., Shih, C-T., Lim, J-H., Je, J-H, Kohmura, Y., Ishikawa, T., Margaritondo, G., Chiang, A-S. * and Hwu, Y.* (2020). A synchrotron X-ray imaging strategy to map large animal brains. *Ch. J. Phys.* **65**:24-32 doi.org/10.1016/j.cjph.2020.01.010 (JCR2018 IF=2.544).
26. Liu, W., Li, C., Tan, F.C.K., Neo, H.J., Chan, Y.H., **Low, C-M.** and Lee, T.L*. (2020). Cerebrospinal fluid of chronic osteoarthritic patients induced interleukin-6 release in human

glial cell-line T98G. *BMC Anesthesiology* **20**:69. doi.org/10.1186/s12871-020-00985-0 (IF=1.619)

27. Hansen, K.B.*, Wollmuth, L.P., Bowie, D., Furukawa, H., Menniti, F.S., Sobolevsky, A.I., Swanson, G.T., Swanger, S.A., Greger, I.H., Nakagawa, T. McBain, C.J., Jayaraman, V., **Low, C-M.**, Dell'Acqua, M.L., Diamond, J.S., Perszyk, R.E., Camp, C.R., Yuan, H., and Traynelis, S.F.* (2021). Structure, function, and pharmacology of glutamate receptor ion channels. *Pharmacol. Rev.* (In press) (IF=17.395)