Curriculum Vitae
Brian W. Edmonds

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Born 23 March 1963 (Seattle, WA)

Education

Columbia University - August 1986 to August 1990
Degree: Doctor of Philosophy
Field: Physiology and Cellular Biophysics

University of Virginia - August 1985 to August 1986
Degree: none
Field: Neuroscience

Stanford University - September 1981 to June 1985
Degree: Bachelor of Science
Field: Biological Sciences

Employment

University of Alaska Fairbanks
Department of Chemistry & Biochemistry
Position: Assistant Professor of Biochemistry & Biophysics

University of Alaska Southeast, Juneau – August 2004 to May 2009
Department of Natural Sciences
Position: Assistant Professor of Biology

University of California, Irvine - September 2001 to August 2004
Department of Molecular Biology & Biochemistry
Position: Assistant Researcher

University of California, Los Angeles - March 1999 to August 2001
Department of Neurobiology
Position: Postgraduate Researcher

University of Oregon - March 1996 to March 1999
Institute of Neuroscience
Position: Research Associate

University College London - August 1990 to February 1996
Department of Pharmacology
Position: Associate Research Assistant

Teaching

Marine Biological Laboratory, Woods Hole, MA
Neural Systems and Behavior (Assistant Instructor), summer 1988, 1989 and 1998.
Neurobiology (Instructor), summer 1999.

Marquette University, Milwaukee, WI
Brain Course (Instructor), summer 2000 – 2001.

Santa Ana College, Santa Ana, CA
Human Anatomy Lab, fall 2002 – spring 2004.
Human Anatomy & Physiology, summer 2003, spring 2004.

University of California, Irvine
Molecular Biology (Bio 99), spring 2002 – 2003 (selected lectures).

University of Alaska Southeast, Juneau
Human Anatomy & Physiology (Biol 111/112), fall 2004 – present, spring 2004 - present.
Introductory Microbiology (Biol 240), spring 2005 - present.
Introduction to General Chemistry (Chem 103), fall 2005 - present.

Publications

Tse, S.S., Edmonds, B. and Mamelok, R.D. (1985) Alloxan stimulates *p*-aminohippurate uptake in renal basal-lateral membranous vesicles. *Biochim. Biophys. Acta* **814**, 333.

Sweatt, J.D., Volterra, A., Edmonds, B., Karl, K.A., Siegelbaum, S.A. and Kandel, E.R. (1989) The inhibitory transmitter FMRFamide reverses protein phosphorylation produced by serotonin and cAMP in the sensory neurons of *Aplysia*. *Nature* **342**, 275.

Edmonds, B., Klein, M., Dale, N. and Kandel, E.R. (1990) Contributions of two types of calcium channels to synaptic transmission and synaptic plasticity. *Science* 250, 1142.

Edmonds, B. and Colquhoun, D. (1992) Rapid decay of averaged single-channel NMDA receptor activations recorded at low agonist concentration. *Proc. Roy. Soc. Lond.* B **250**, 279.

Braha, O., Edmonds, B., Sacktor, T., Kandel, E.R. and Klein, M. (1993) The contributions of protein kinase A and protein kinase C to the actions of 5-HT on the L-type Ca^{2+} current of the sensory neurons in *Aplysia*. *J. Neurosci.* **13**, 1839.

Silver, R.A., Colquhoun, D., Cull-Candy, S.G. and Edmonds, B. (1996) Deactivation and desensitization of non-NMDA receptors in patches and the time course of EPSCs in rat cerebellar granule cells. *J.Physiol. (Lond)* **493**, 167.

Colquhoun, D., Hawkes, A.G., Merlushkin, A. and Edmonds, B. (1997) Properties of single ion channel currents elicited by a pulse of agonist concentration or voltage. *Phil. Trans. R. Soc. Lond.* A **355**, 1743.

Edmonds, B., Reyes, R., Schwaller, B. and Roberts, W.M. (2000) Calretinin modifies presynaptic calcium signaling in frog saccular hair cells. *Nat. Neurosci.* **3**,786.

Edmonds, B.W., Gregory, F.D. and Schweizer, F.E. (2004) Evidence that fast exocytosis can be predominantly mediated by vesicles not docked at active zones in frog saccular hair cells. *J. Physiol.* **560**, 439.

Kayed, R., Sokolov, Y., Edmonds, B., McIntire, T.M., Milton, S.C., Hall, J.E. and Glabe, C.G. (2004) Permeabilization of lipid bilayers is a common conformation-dependent activity of soluble amyloid oligomers in protein misfolding diseases. *J. Biol. Chem.* **279**, 46363.

Matsuka, Y. Edmonds, B., Mitrirattanakul, S., Schweizer, F.E. and Spigelman, I. (2007) Two types of neurotransmitter release patterns in isolectin B4-positive and negative trigeminal ganglion neurons. *Neurosci.* **144**, 665.

Kim, J.-S., Pandya, A., Weltzin, M., Edmonds, B.W., Schulte, M.K. and Glennon, R.A. (2007) Synthesis of desformylflustrabromine and its evaluation as an $\alpha4\beta2$ and $\alpha7$ nACh receptor modulator. *Bioorg. Med. Chem. Lettr.* **17**, 4855.

Reviews

Gibb, A.J., Edmonds, B., Silver, R.A., Cull-Candy, S.G. and Colquhoun, D. (1994) Activation of NMDA receptors. In *The NMDA Receptor*, ed. J.C. Watkins and G.L. Collingridge, Oxford: IRL Press, p. 219.

Edmonds, B., Gibb, A.J. and Colquhoun, D. (1995) Mechanisms of activation of muscle nicotinic acetylcholine receptors and the time course of endplate currents. *Ann. Rev. Physiol.* **57**, 469.

Edmonds, B., Gibb, A.J. and Colquhoun, D. (1995) Mechanisms of activation of glutamate receptors and the time course of excitatory synaptic currents. *Ann. Rev. Physiol.* **57**, 495.

Edmonds, B.W. and Luecke, H. (2004) Atomic resolution structures and the mechanism of ion pumping in bacteriorhodopsin. *Front. Biosci.* **9**, 1556.