

Andrew Plested

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Curriculum vitae

since 2008 Junior group leader, Leibniz-Institut für Molekulare Pharmakologie, Berlin
2005 – 2008 Postdoctoral fellow (Advisor: Mark Mayer), National Institutes of Health, US
2002 – 2005 Postdoctoral fellow (Advisor: David Colquhoun FRS), University College London
1998 – 2002 PhD thesis (Advisors: Nick Franks and Bill Lieb), Biophysics Group, Imperial College London
1994 – 1998 MSc degree in Physics, Imperial College London

Research fields

Our group is active in the field of molecular neuroscience and biophysics with the following major areas:

- Structure and activation mechanisms of glutamate receptors
- Mechanisms of receptor desensitization
- Single channel recording and analysis of glycine receptors

Activities in the scientific community, honors, awards

2008 Wellcome Trust (UK) Research Career Development fellowship (declined)
2008 MRC (UK) Career Development Award (declined)
2008 NIH (US) Fellows Award in Research Excellence
2005 Royal Society (UK) Travel Award
2002 Brain Travel Award

Selected publications

Das, U, Kumar, J, Mayer, ML* and Plested, AJ*. Domain organization and function in GluK2 subtype kainate receptors. *Proc Natl Acad Sci U S A*. 2010; 107, 8463-8. |* equal contribution

Vijayan, R, Plested, AJ, Mayer, ML and Biggin, PC. Selectivity and cooperativity of modulatory ions in a neurotransmitter receptor. *Biophys J*. 2009; 96, 1751-60.

Plested, AJ and Mayer, ML. Engineering a high-affinity allosteric binding site for divalent cations in kainate receptors. *Neuropharmacology*. 2009; 56, 114-20.

Plested, AJ and Mayer, ML. AMPA receptor ligand binding domain mobility revealed by functional cross linking. *J Neurosci*. 2009; 29, 11912-23.

Chaudhry, C, Plested, AJ, Schuck, P and Mayer, ML. Energetics of glutamate receptor ligand binding domain dimer assembly are modulated by allosteric ions. *Proc Natl Acad Sci U S A*. 2009; 106, 12329-34.

Plested, AJ*, Vijayan, R*, Biggin, PC and Mayer, ML. Molecular basis of kainate receptor modulation by sodium. *Neuron*. 2008; 58, 720-35. |* equal contribution

Plested, AJ and Mayer, ML. Structure and mechanism of kainate receptor modulation by anions. *Neuron*. 2007; 53, 829-41.

Plested, AJ, Groot-Kormelink, PJ, Colquhoun, D and Sivilotti, LG. Single-channel study of the spasmodic mutation alpha1A52S in recombinant rat glycine receptors. *J Physiol*. 2007; 581, 51-73.

Plested, AJ, Wildman, SS, Lieb, WR and Franks, NP. Determinants of the sensitivity of AMPA receptors to xenon. *Anesthesiology*. 2004; 100, 347-58.

Colquhoun, D, Dowsland, KA, Beato, M and Plested, AJ. How to impose microscopic reversibility in complex reaction mechanisms. *Biophys J*. 2004; 86, 3510-8.