

## Andrew Plested

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### Curriculum vitae

2015	Visiting Scholar, IINS, University of Bordeaux, France
since 2008	Junior group leader, Leibniz-Institut für Molekulare Pharmakologie, Berlin
2005 - 2008	Postdoctoral fellow (Advisor: Mark Mayer), National Institutes of Health, USA
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 modeling of activation mechanisms of glutamate receptors
- Photocontrol of receptors in mammalian cells
- Single channel recording and analysis of neurotransmitter receptors

### Activities in the scientific community, honors, awards

2015	ERC Consolidator Grant
2015	IdEx Visiting Scholar, and LabEx Brain, Bordeaux, France
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

Carbone AL, Plested AJ. Superactivation of AMPA receptors by auxiliary proteins. *Nat Commun.* 2016;7:10178.

Baranovic J, Chebli M, Salazar H, Carbone AL, Faelber K, Lau AY, Daumke O, Plested AJ. Dynamics of the Ligand Binding Domain Layer during AMPA Receptor Activation. *Biophys J.* 2016;110(4):896-911.

Klippenstein V, Ghisi V, Wietstruk M, Plested AJ. Photoinactivation of glutamate receptors by genetically encoded unnatural amino acids. *J Neurosci.* 2014;34(3):980-91.

Miranda P, Contreras JE, Plested AJ, Sigworth FJ, Holmgren M, Giraldez T. State-dependent FRET reports calcium- and voltage-dependent gating-ring motions in BK channels. *Proceedings of the National Academy of Sciences of the United States of America*. 2013;110(13):5217-22.

Lau AY, Salazar H, Blachowicz L, Ghisi V, Plested AJ, Roux B. A conformational intermediate in glutamate receptor activation. *Neuron*. 2013;79(3):492-503.

Lape R, Plested AJ, Moroni M, Colquhoun D, Sivilotti LG. The alpha1K276E startle disease mutation reveals multiple intermediate states in the gating of glycine receptors. *J Neurosci*. 2012;32(4):1336-52.

Carbone AL, Plested AJ. Coupled control of desensitization and gating by the ligand binding domain of glutamate receptors. *Neuron*. 2012;74(5):845-57.

Das U, Kumar J, Mayer ML, Plested AJ. Domain organization and function in GluK2 subtype kainate receptors. *Proceedings of the National Academy of Sciences of the United States of America*. 2010;107(18):8463-8.

Plested AJ, Mayer ML. AMPA receptor ligand binding domain mobility revealed by functional cross linking. *J Neurosci*. 2009;29(38):11912-23.

Chaudhry C, Plested AJ, Schuck P, Mayer ML. Energetics of glutamate receptor ligand binding domain dimer assembly are modulated by allosteric ions. *Proceedings of the National Academy of Sciences of the United States of America*. 2009;106(30):12329-34.

Plested AJ, Vijayan R, Biggin PC, Mayer ML. Molecular basis of kainate receptor modulation by sodium. *Neuron*. 2008;58(5):720-35.

Plested AJ, Mayer ML. Structure and mechanism of kainate receptor modulation by anions. *Neuron*. 2007;53(6):829-41.