

**LUCIA SIVILOTTI**

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**EDUCATION AND TRAINING**

1981 Pharmaceutical Chemistry degree (110 out of 110 cum laude; Ferrara U., Italy).  
 1982 State registration as pharmacist – (223 marks out of 250; Ferrara U., Italy)  
 1983 Specializzazione (Italian higher degree), Exp. Pharmacology (70 out of 70 cum laude; Milan U.)  
 1988 PhD in Pharmacology, Bart's Medical College, University of London "Pharmacological actions of neutral amino acids on synaptic transmission in the frog optic tectum"  
 2005- I am halfway through a Diploma in Statistics with the OU (4 modules, all passed with distinction, so far).

**PAST EMPLOYMENT**

2003-2008 Senior Lecturer, then Reader, Pharmacology, UCL.  
 1997-2002 Lecturer, then Senior Lecturer, Pharmacology, The School of Pharmacy, London  
 1993-1997 Senior Research Fellow, Pharmacology, UCL (postdoc in David Colquhoun's group).  
 1990-1993 Associate Research Fellow, Anatomy, UCL (postdoc in Clifford Woolf's group).

After my PhD I took two years away from lab work to help care for my mother in her final illness and to work in her pharmacy in Italy- in this time I wrote up experimental papers and a (much cited) review on GABA.

**PROFESSIONAL RECOGNITION***Editorial & refereeing*

2014, Austrian Science Fund Panel, Vienna, Austria  
 2010, Austrian Science Fund Panel, Vienna, Austria  
 2004, NIH study section on Biophysics of synapses, channels and transporters study section.  
 2000-2004 Editorial Board of the British Journal of Pharmacology  
 2015 - Advisory Editorial Board of the Journal of General Physiology (USA)  
 I have acted as referee for grants for MRC, Wellcome Trust, BBSRC, Human Frontiers  
 I regularly referee papers for J.Physiology, J. Neuroscience, J.Gen.Physiology and I occasionally referee manuscripts for Science, Nature, Br. J. Pharmacol., EMBO Journal, Eur.J.Neurosci., Eur. J. Physiol., Neuropharmacology, Neuroscience, J. Neurosci. Meth., Cellular and Molecular Life Sciences, J. Neurochem., JBC, PNAS.

*Main invited talks*

1997 Symposium IUPS meeting, St Petersburg  
 2000 Symposium, Physiological Society meeting, London  
 2005 Symposium, Physiological Society/Federation of Eur.Phys.Societies meeting, Bristol.  
 2007 Symposium, British Pharmacological Society Winter meeting, Brighton.  
 2009 Symposium, Annual meeting of the Biophysical Society, Boston; Symposium, 11th International Congress on Amino Acids, Peptides and Proteins, Vienna  
 2010 Cambridge University; Trieste University; Symposium at the annual meeting of the Physiological Society, Manchester; Gordon Research Conference on Ion Channels (US); Lighthill Institute of Mathematical Sciences, London  
 2011 Membrane Proteins: Structure and Function, Oxford; University of Zurich; Universidad Pompeu Fabra, Barcelona; Manchester University; Ear Institute, UCL  
 2012 Manchester University; Symposium at EPHAR, Granada  
 2013 EMBO Symposium on Allosteric Mechanisms, Pasteur Institute; Leicester University  
 2014 Gary Price Memorial Lecture, British Pharmacological Society meeting, London

2015 IBRO symposium at main meeting, Rio de Janeiro  
 2015 Membrane Signalling and Transport: Computation and Experiment, LMH, Oxford  
 2015 Dundalk Institute of Technology, Ireland  
 2016 Strasbourg University  
 2016 Organiser of the Symposium "Novel approaches to probe the molecular function of ion channels from the nicotinic superfamily", Physiology 2016, Dublin, Ireland  
 2016 XVth International Symposium on Cholinergic Mechanisms, Marseille, France  
 2017 Bristol University; Oxford University; Emerging Concepts in Ion Channel Biophysics, Thematic Meeting of the Biophysical Society, Mexico City.

#### *Other (current)*

Convenor of one of UCL Women's Alternative Book Clubs (a diffuse mentoring/networking scheme for STEM women) 2013-2015  
 Steering committee, UCL Women  
 Trustee and council member of the Physiological Society (2012-2016); member of the panel "Health of Physiology", due to report in 2015; financial committee (2015-)  
 Tutor and organizer since 2003 of the Workshop "Understanding ion channels in terms of mechanisms: Analysis and interpretation of single ion channel records and macroscopic currents using matrix methods." at UCL  
<http://www.ucl.ac.uk/Pharmacology/matrix.htm> This is a course that runs for a week full time every summer. We take 10-15 students every year - anybody interested in the analysis of kinetic schemes, from postgrads to professors. The necessary matrix algebra is taught as well as its application to stochastic processes. About 50% of attendees are from outside the UK.  
 Graduate Tutor (since 2009) for UCL CoMPLEX (Centre for Mathematics and Physics in the Life Sciences and Experimental Biology) <http://www.ucl.ac.uk/complex/>  
 CoMPLEX Management committee (2005-)  
 2015-19 External examiner Pharmacology and Physiology, University of Manchester, UK

#### *Other (past)*

President, UCL Natural Sciences Club (2011-12)  
 Non-professorial member of UCL Academic Board and Academic Committee (2005-2008)  
 Honorary Treasurer, Professors' Dining Club (2006-2010)  
 Tutor, Microelectrode Technique Workshop, Plymouth Marine Biology Association (1996-2002)

At the School of Pharmacy:

Higher Degree Committee (1998-2002)  
 Quality Management and Enhancement facilitator at the 2000 Subject Review by the Quality Assurance Agency

#### **PHD SUPERVISION**

Mr J.B. Boorman, 1998-2001, "Neuronal nicotinic receptors containing the  $\beta 3$  subunit: pharmacology and stoichiometry", School of Pharmacy Studentship; PhD awarded 2002.  
 Ms V. Burzomato, 2001-2004, "Single-channel kinetics of heteromeric glycine receptors", funded in part by the School of Pharmacy and in part from my grants, PhD awarded 2005.  
 Mr Stephen Broadbent, 2001-2004, "Investigating neuronal nicotinic receptors by concatamer approaches", supported by an MRC Studentship; submitted 2005, awarded 2006  
 Ms Skevi Krashia, 2005-2009 "Experimental approaches to the determination of the stoichiometry of receptors in the nicotinic superfamily". PhD awarded 2009.  
 Mr Alessandro Marabelli, 2010- 2014 "Kinetic study of two members of the Cys-loop family", supported by a UCL Impact Scholarship, PhD awarded 2014.  
 Mr Michael Epstein, 2011-2015, CoMPLEX student (joint supervision with Prof. Girolami, UCL Statistics); PhD awarded 2015.  
 Ms Fatemah Safar, 2012- 2015, supported by Kuwait state scholarship, submitted 2016  
 Mr Elliot Hurdiss, 2012-2015, supported by a UCL Impact Scholarship

In the last ten years I have had six undergraduates doing summer projects in my lab and five postgraduates doing rotations or extended projects.

**PhD EXAMINING**

2002 External examiner at SISSA, Trieste, Italy  
 2010 Internal examiner at UCL (Stephanie Koch)  
 Internal examiner for MPhil transfer (Chatzidaki, Moore at UCL; Miller at Birkbeck)  
 2013, 2015 External examiner, Cambridge

**MAJOR RESEARCH FUNDING AS PI***Current*

2017-2019 Leverhulme Trust Project grant Spatially resolved optical patch clamp of single ion channels (£ 207,280)

*Past*

2015-2016 EPSRC ARCHER Project grant Parallelization and porting of single-channel analysis tools to the high performance computing platform (£ 93,069)

2012-2015 BBSRC Project grant Combining structure and function in the nicotinic superfamily: the single-channel activation mechanism for the prokaryotic model channel ELIC (£ 395,000) BB/J005312/1

2012-2015 MRC Project grant to L. Sivilotti and P. Biggin (Oxford) Probing the dynamics of agonist drug interaction with Cys-loop channels by single-molecule recording (£ 538,000) MR/J007110/1

2005- 2010 MRC Programme Grant to L. Sivilotti (PI), D. Colquhoun and T. Smart Molecular neuroscience of glycine receptors: insights into ligand-gated ion channel function (£1,260,990) G0400869

2004 -2007 Wellcome Trust Project Grant to L. Sivilotti (PI) and D. Colquhoun; The gating mechanism of the nicotinic acetylcholine receptor: function and structure (£366,374)

2001-2004 Wellcome Trust Project Grant, Complex heteromers: neuronal nicotinic receptors containing the  $\beta 3$  subunit (£171,197).

1999-2002 MRC Co-operative component grant: Molecular mechanisms of glycine receptor activation: electrophysiology of normal and startle disease glycine receptors (£ 202,371).

1998-2001 Wellcome Trust Project Grant: The role of the  $\beta 3$  subunit in neuronal nicotinic receptors (£ 168,972)

**OTHER FUNDING**

2013 A UCL internal call gave us three months of work by the Research Software Development team to start redeveloping the dcprogs analysis software.

2010 Co-ordinator for a Capital Infrastructure Funding bid at UCL for a complete refurbishment of the *Xenopus* facility (£113,000 awarded)

2002 JREI MRC equipment award to T.G. Smart, S.J. Moss and L.Sivilotti to buy a confocal microscope setup (£126,000)

1997 – 2000 MRC Project grant to D. Colquhoun, S.J. Moss and L. Sivilotti: Glycine receptors: the synaptic and ion channel properties of normal receptors and of mutants that cause hyperekplexia. (£ 126,434).