

Curriculum Vitae

Name: Euan Robert MacPherson
Brown.

Present position: Ist Researcher &
Coordinator (Head of
Department) Animal Physiology
and Evolution.
Dean of Postgraduate Studies.

Address: Stazione Zoologica Anton Dohrn.
Villa Comunale 80121
Naples
Italy

Telephone: 0039081 5833230

Fax: 0039081 764 1355

Email: Brown@SZN.IT

Date of Birth: 7 May 1959

Nationality: British

Degrees:/Education



1991 Ph.D (Physiology). King's College London/MBA
Plymouth.

1987 B.Sc Physiology (Hons. 2.1), King's College London.

1984 ONC, & HNC in Medical Laboratory Sciences Napier
University Edinburgh.

1977 George Watson's College Edinburgh Scotland, UK.

Positions and research themes.

- Jan 2008-
Jan 2004-
Jan 2001-8
Nov 1999-
March 1999-
April 2000
Jan 1999-
Nov 1999
Oct 1993-
Nov 1998
Oct 1990-
Nov 1993
Oct 1987-
Nov 1990
Oct 1979-
Nov 1984
- Coordinator Animal Physiology and Evolution (responsible for 7 research units).**
- Dean of postgraduate studies (SZN).**
- Coordinator Neurobiology Laboratory SZN, Napoli. (Responsible for three research units).**
- Primo Ricercatore (Neurobiology Lab) SZN, Napoli. Brain and behavior in marine invertebrates.**
- Ray Lankester Fellow (Marine Biological Association Plymouth UK).**
- Wellcome Trust Senior Fellow (Leicester University). Synaptic transmission at the Calyx of Held.**
- BBSRC Advanced Fellow, (MBA,Plymouth,UK) Glial Cells in the nervous system. Mechanisms of skeletal muscle EC-coupling.**
- Wellcome Trust Post Doctoral Research Associate, (MBA,Plymouth,UK) Ionic selectivity of the Schwann cell membrane.**
- Ph.D. Studentship. SERC (CASE) (Dr N J Abbott (King's London) & Dr Q Bone FRS (MBA)). Axon-Schwann cell interaction in the squid giant axon.**
- Assistant Scientific Officer Animal Diseases Research Association, Edinburgh (Neuropathology).**

Honorary positions/ and awards

- 2011-
2009-
2007
- Steering Group Member of the preparatory phase Project: European Marine Biological Resource Centre (EU-FP7).**
- Work Package Leader and project implimentation committee member ASSEMBLE infrastructure (EU FP7).**
- Visiting Professor. National Institute for Natural Sciences, Okazaki JSPS (Japan).**

- 2004-8** **Education Committee Member. EU Framework 6**
Network of Excellence in Marine Genomics.
- 1999-2000** **Ray Lankester Fellow (MBA).**
- 1998-2001** **Hon. Senior Lecturer, Plymouth Postgraduate Medical**
School.
- 1995-8** **National Convenor Neurobiology Section (Society for**
Experimental Biology, UK).
- 1987** **Dale Fund Fellowship, The Physiological Society (UK)**

Current Management responsibilities

Title	Role
Project Management	Currently Coordinating PF7 projects on infrastructure ASSEMBLE to the value of (1.6 M€), Coordinating ESFRI Research Infrastructure EMBRC project preparatory stage with Prof. R Di Lauro. Local Coordinator of ENNSATOX FP7 project 'impact of engineered nanoparticles aquatic environments.
Laboratory Coordinator:	Head of Department, organize budget and coordinate research of research groups affiliated to the Laboratory. Organize contacts for PhD Students and staff. Evaluate requests for Equipment. Represent the institute and laboratory. Report to the Director, President and scientific council.
Dean of Postgraduate Studies	Coordinate the PhD Programme of the Institute including organizing the curriculum, liaison with the Open University UK and local Universities. Chair the local PhD committee and resolve student/supervisor problems. Currently responsible for 35 PhD students and a budget of around 500K€.
Primo Ricercatore	Responsible for coordinating and operating my personal research programme as PI in Marine Neuroscience. Obtaining external funding for my research.
Teaching	I have supervised successfully around 20 UK PhD students and 3 Italian Dottorati di Ricerca. I have examined 10 UK PhD students

Membership of Societies.

Physiological Society, London, UK.

Society for Experimental Biology, London UK

British Neuroscience Association, UK.

Animal Diseases Research Association, Edinburgh UK.

Marine Biological Association, Plymouth UK

Associate of the Institute of Biomedical Sciences, London UK.

Overseas work/teaching.

2006-7 Visiting Professor. National Institute of Natural Sciences, Okazai, Japan.

2004-8 Visiting Researcher Royal Swedish Academy of Sciences STINT Scheme.

2002-9 Faculty Kristeneburg/Karolinska Advanced Course in Neuroscience, Sweden.

1997-9 Faculty, Southern Summer School in Neuroscience, Uruguay.

1995-8 Visiting Researcher Marine Biological Laboratory Woods Hole USA.

1993-5 Visiting Researcher. National Institute of Physiological Sciences, Okazai, Japan.

Editorial/refereeing responsibilities.

Referee for the following Journals: *Glia, Neuroscience Letters, J. Physiol., J. Exp Biol., Proc. Roy. Soc., JMBA, Gene, Development, J Comp. Physiol., J. Comp. Neurol., Frontiers in Biology, American Journal of Comp Psychol.*

Editorial board member for: *Invertebrate Neuroscience.*

Referee for the following Funding agencies. *Wellcome Trust UK, NERC UK, BBSRC UK., Israel Science Foundation, L'ANR, CNRS, France, MIUR (PRIN) Italy.*

Meetings organized

2011 June 2nd Kemali IBRO Course in Mediterranean Neuroscience, SZN Naples Italy. International Organizing Committee.

2010 September 22 ENNSATOX (FP7) second project implementation meeting. Napoli.

2009 Oct 30 Anton Dohrn Legacy Meeting 'Marine Biological Networks'. Local organizing committee member.

2009 Sept 19-30 Ist Kemali IBRO Course in Mediterranean Neuroscience, SZN Naples Italy. International Organizing Committee.

2007 National congress of the Italian Society of Neuroscience, Verona, Italy. 'Glutamate receptors and their deep evolutionary history in invertebrates'. September 27. Organizer.

1999 Society for Experimental Biology Edinburgh 'Synaptic glial cells'. March 23 -24.. Organizer.

1998 Society for Experimental Biology York. 'Calcium channels structure, function and phylogeny'. 24-26 March. Organizer.

1998 Physiological Society Plymouth (Joint organizer with R Williamson) July 27.

1997 Society for Experimental Biology Lancaster 'General Neurobiology'. March 20. Organizer

Invitations and attendance at international meetings.

2010 European Science Foundation Marine Biotechnology meeting Acquachiaro di Maratea.

2008 Invited Expert at EU Funded Symposium “Genes at work on time” organized by PROUST Network at the International Labour Organization Training Center, Torino. Oct. 15-17.

2007. Invited speaker Workshop and Scientific meeting ‘The dimension of time and gene functioning: focus on the nervous system’. EU FP6 network Kristineberg marine Research Station. June 7-12

2007. Invited to the meeting ‘Electrochemical Signaling by Membrane Proteins Biodiversity and principle’. Okazaki Japan. 14-16 March.

2005. Invited speaker at 6th Neurobiology Conference “Ladislav Tauc” Croissance et Formes des Systèmes Neuraux. On the Growth and Forms of Neural Systems. Gif-Sur-Yvette, Paris, France Decembre 15-16th, 2005.

2004. Invited speaker at the international symposium 'Biology of the Deuterostomian invertebrates: a post genomic perspective. March 29- 2 April . Edinburgh UK.

2003. Invited speaker at the international congress ' International Urocordate meeting' Carry le Rouet, France Oct 11-15.

2002. Invited Speaker Ascidian Meeting Marselles France. June 15.

2001. Invited speaker British Neuroscience Association Harrogate Yorkshire. March.

1998. Invited plenary speaker International symposium on Glial cell function Southampton July 13-16 Organized by the Physiological society.

1995. HSFP workshop on Transmitter receptors and Ion channels in Glial Cells Dresden Germany.

1994. Annual meeting Wales Swansea invited speaker 11-15 April General neurobiology.

1992 Invited international speaker the 17th Seiriken Conference Frontiers in optical science and comparative neurophysiology. National institute for Physiological Science Okazaki, Japan. March 3-7.

1991 International Meeting on Cephalopod Neurobiology Sponsored by the Marine Biological Association UK, The Wellcome Trust and the UK Physiological Society 16-18 July.

1991 Annual meeting of the British Physiological Society, Cambridge UK July 18-21.

1990 International conference on Glial Neuronal Interactions sponsored by the New York Academy of Sciences. Cambridge UK 21-22 July.

1989 Annual meeting of the British Physiological Society Cambridge UK.

1989 XXXI International Congress of the Physiological Sciences Helsinki, Finland. 9-14 July and Satellite Meeting 5-8 July Ionic regulation in Nervous Tissue.

Recent Research grants (K€/£).

2009-12	Coordinator (SZN) ENNSATOX STREP FP7	€320
2009-13	Coordinator (SZN) ASSEMBLE Infrastructure Initiative FP7	€1,200
2000-9	Institutional grant (per year)	€25
2004-7	Synaptic Plasticity in the cephalopod nervous system (FIRB)	€100
2004-8	STINT exchange programme Swedish Academy of Sciences joint with Kristineberg Marine Station.	€135
2004-8	FP6 Marine genomics Network of Excellence.	€80
2003	Access to research infrastructures (EU).	€4

UK Research grants and contracts.

1993-1998*	BBSRC Advanced Fellowship .	£150
1992-1994	Monbusho (International Exchange) Japan Ministry of	£4
1993-1996	SERC Invertebrate initiative. E R Brown & N J Abbott. Patch clamp of squid giant axon Schwann cells.	£30
1994-1997	SERC Invertebrate initiative (With Dr R Williamson) Photometric system for the measurement of intracellular Ca ²⁺	£30
1993-1994	SERC-Equipment grant.	£10
1994-1995	Royal Soc. Equipment Grant. Voltage clamp of glial cells <i>in situ</i>	£10
1995-1998	BBSRC research grant; Evolution of Skeletal muscle EC coupling. (Equipment & Post Doc' research assistant)	£90
1996-1998	BBSRC research grant. Axon -Schwann cell interaction in the squid.	£20
1995	ISIS International Scientific Exchange Scheme (BBSRC). Visit to Naples University.	£1
1991-1995	Wellcome trust Postdoc Overseas Fellowship (Synaptic Schwann cells).	£65
1997	Co-applicant With R Williamson and Q Bone for Wellcome Trust refurbishment of Physiology Lab MBA	£400

Publications by year and in alphabetical order.

In prep or submitted

1. Razy-Krajka F , Kusakabe T, Brown ER, Callebert J Joly JS, and Vernier P (2011) Tracing the common evolutionary origin of ascidian dopaminergic cells and vertebrate amacrine cells: Monoaminergic modulation of photoreception predates the origin of the retina in chordates.
2. Nwurim,G Piscopo S, Brown ER (201!) Behavioural plasticity in an invertebrate chordate. *Behavioural Brain Research. In prep.*
3. Idris MM, Thorndyke MC, **Brown ER.** (2011). Evidence for dynamic and multiple roles for huntingtin in *Ciona intestinalis*. (*Submitted to BMC Neuroscience*).
4. Brown **ER** **Piscopo S** . (2011). Ion channels in key marine invertebrates; potential and applications in biotechnology. (*Submitted to Biotechnology Advances*).
5. **Brown ER,** Piscopo S. (2011) The neurophysiology and plasticity of invertebrate chordates seen through the solitary ascidian *Ciona intestinalis*. *Frontiers in biology. In Press.*
6. Mattiello T, Fiore G, **Brown ER,** d'Ischia M, Palumbo A. (2010) Nitric oxide mediates the glutamate-dependent pathway for neurotransmission in *Sepia officinalis* chromatophore organs. *J Biol Chem.* 2010 Jun 1. [Epub ahead of print]
7. Nishino A, Okamura Y, Piscopo S & **Brown ER** (2010) A glycine receptor is involved in the organization of swimming movements in an invertebrate chordate. *BMC Neuroscience*; **11**:6 [Open Access](#) [Highly accessed](#)
8. Sordino P, Andreakis N, **Brown ER,** Leccia NI, Squarzoni P, Tarallo R, Alfano C, Caputi L, D'Ambrosio P, Daniele P, D'Aniello E, D'Aniello S, Maiella S, Miraglia V, Russo MT, Sorrenti G, Branno M, Cariello L, Cirino P, Locascio A, Spagnuolo A, Zanetti L, Ristatore F. (2008) Natural variation of model mutant phenotypes in *Ciona intestinalis*. *PLoS One.* 3(6):e2344. [Open Access](#)
9. Uttieri, M, **Brown,** ER, Boxshall GA, Mazzocchi MG (2008) Morphology of antennular sensors in *Clausocalanus furcatus* (Copepoda: Calanoida) *Journal of the Marine Biological Association of the UK* , Volume 88 , Issue 03 pp 535-541
10. **Brown ER,** Piscopo S, Chun, JT, Francone M, Mirabile I, D'Aniello A. (2007). Modulation of AMPA-like glutamate receptor gating (SqGluR) by D- and L- Aspartic acids. *Amino Acids.* **32**: 53-57.
11. Marino R, Melillo D, Di Filippo M, Yamada A, Pinto MR, De Santis R, **Brown ER,** Matassi G (2007). Ammonium channel expression is essential for brain development and function in the larva of *Ciona intestinalis*. *Journal of Comparative Neurology.* **503**(1):135-47.

12. Piscopo S, Moccia F, Di Cristo C, Caputi L, Di Cosmo A, **Brown ER**. (2007) Pre- and postsynaptic excitation and inhibition at octopus optic lobe photoreceptor terminals; implications for the function of the 'presynaptic bags'. *European Journal of Neuroscience*. **26(8)**:2196-203.
13. Zanetti L, Ristoratore F, Francone M, Piscopo S, & **Brown ER** (2007). Primary cultures of nervous system cells from the larva of the ascidian *Ciona intestinalis*. *Journal of Neuroscience Methods*. 165(2):191-197.
14. **Brown ER**, Piscopo SP, De Stefano R, Giuditta A (2006) Brain and behavioural evidence for rest-activity cycles in *Octopus vulgaris*. *Behavioural Brain Research*. **172(2)**:355-9.
15. D'Aniello S, D'Aniello E, Locascio A, Memoli A, Corrado M, Russo MT, Aniello F, Fucci L, **Brown ER**, Branno M (2006). The ascidian homologue of the vertebrate homeobox gene Rx is essential for ocellus development and function. *Differentiation* **74(5)**:222-34
16. Sodergren E, Weinstock GM, Davidson EH, Cameron RA, Gibbs RA, Angerer RC, Angerer LM, Arnone MI, Burgess DR, Burke RD, Coffman JA, Dean M, Elphick MR, Etensohn CA, Foltz KR, Hamdoun A, Hynes RO, Klein WH, Marzluff W, McClay DR, Morris RL, Mushegian A, Rast JP, Smith LC, Thorndyke MC, Vacquier VD, Wessel GM, Wray G, Zhang L, Elsik CG, Ermolaeva O, Hlavina W, Hofmann G, Kitts P, Landrum MJ, Mackey AJ, Maglott D, Panopoulou G, Poustka AJ, Pruitt K, Sapozhnikov V, Song X, Souvorov A, Solovyev V, Wei Z, Whittaker CA, Worley K, Durbin KJ, Shen Y, Fedrigo O, Garfield D, Haygood R, Primus A, Satija R, Severson T, Gonzalez-Garay ML, Jackson AR, Milosavljevic A, Tong M, Killian CE, Livingston BT, Wilt FH, Adams N, Belle R, Carbonneau S, Cheung R, Cormier P, Cosson B, Croce J, Fernandez-Guerra A, Genevriere AM, Goel M, Kelkar H, Morales J, Mulner-Lorillon O, Robertson AJ, Goldstone JV, Cole B, Epel D, Gold B, Hahn ME, Howard-Ashby M, Scally M, Stegeman JJ, Allgood EL, Cool J, Judkins KM, McCafferty SS, Musante AM, Obar RA, Rawson AP, Rossetti BJ, Gibbons IR, Hoffman MP, Leone A, Istrail S, Materna SC, Samanta MP, Stolc V, Tongprasit W, Tu Q, Bergeron KF, Brandhorst BP, Whittle J, Berney K, Bottjer DJ, Calestani C, Peterson K, Chow E, Yuan QA, Elhaik E, Graur D, Reese JT, Bosdet I, Heesun S, Marra MA, Schein J, Anderson MK, Brockton V, Buckley KM, Cohen AH, Fugmann SD, Hibino T, Loza-Coll M, Majeske AJ, Messier C, Nair SV, Pancer Z, Terwilliger DP, Agca C, Arboleda E, Chen N, Churcher AM, Hallbook F, Humphrey GW, Idris MM, Kiyama T, Liang S, Mellott D, Mu X, Murray G, Olinski RP, Raible F, Rowe M, Taylor JS, Tessmar-Raible K, Wang D, Wilson KH, Yaguchi S, Gaasterland T, Galindo BE, Gunaratne HJ, Juliano C, Kinukawa M, Moy GW, Neill AT, Nomura M, Raisch M, Reade A, Roux MM, Song JL, Su YH, Townley IK, Voronina E, Wong JL, Amore G, Branno M, **Brown ER**, Cavalieri V, Duboc V, Duloquin L, Flytzanis C, Gache C, Lapraz F, Lepage T, Locascio A, Martinez P, Matassi G, Matranga V, Range R, Rizzo F, Rottinger E, Beane W, Bradham C, Byrum C, Glenn T, Hussain S, Manning FG, Miranda E, Thomason R, Walton K, Wikramanayake A, Wu SY, Xu R, Brown CT, Chen L, Gray RF, Lee PY, Nam J, Oliveri P, Smith J, Muzny D, Bell S, Chacko J, Cree A, Curry S, Davis C, Dinh H, Dugan-Rocha S, Fowler J, Gill R, Hamilton C, Hernandez J, Hines S, Hume J, Jackson L, Jolivet A, Kovar C, Lee S, Lewis L, Miner G, Morgan M, Nazareth LV, Okwuonu G, Parker D, Pu LL, Thorn R,

- Wright R. (2006) The genome of the sea urchin *Strongylocentrotus purpuratus*. *Science*. **314**(5801):941-52.
17. Spinelli P, P **Brown ER**, Ferrandino G, Branno M, Montarolo PG, P D'Aniello E, Rastogi RK, D'Aniello B, P Chieffi G, P Fisiher G, D'Aniello A (2006). D-Aspartic acid in the nervous system of *Aplysia limacina*: Possible role in neurotransmission. *Journal of Cell Physiology*. **206**:672-681.
 18. Zega G, Thorndyke, MC, **Brown ER** (2006). Development of swimming behaviour in the larva of the ascidian *Ciona intestinalis*. *Journal of Experimental Biology* 209(Pt 17):3405-12
 19. **Brown ER**, Nishino, A, Bone, Q, Meinertzhagen, I, Okamura, Y (2005). GABAergic synaptic transmission modulates swimming in the ascidian larva. *European Journal of Neuroscience*. **22**(10):2541-8.
 20. Piscopo S, De Stefano R, Thorndyke MC, **Brown ER** (2005). Alteration and recovery of appetitive behaviour following nerve section in the starfish *Asterias rubens*. *Behavioural Brain Research*. **164**(1):36-41.
 21. Hochner B, **Brown ER**, Langella M, Shomrat T, Fiorito G (2003). A learning and memory area in the octopus brain manifests a vertebrate-like long-term potentiation. *Journal of Neurophysiol*. **90**, 3547-3554.
 22. Lima PA, Nardi G, **Brown ER** (2003). AMPA/kainate and NMDA-like glutamate receptors at the chromatophore neuromuscular junction of the squid: role in synaptic transmission and skin patterning. *European Journal of Neuroscience* **17**, 507-516.
 23. Moccia F, Nusco GA, Lim D, Ercolano E, Gragnaniello G, **Brown ER**, Santella L., (2003). Ca^{2+} signalling and membrane current activated by cADPr in starfish oocytes. *Pflugers Arch*. **446**, 541-52.
 24. Inoue I, Tsutsui I, Abbott NJ, **Brown ER**. (2002) Ionic currents in isolated and *in situ* squid Schwann cells. *TJournal of Physiology* **541** 3; 769-778.
 25. Vinogradova IM, Zajicek J, Gentile S, **Brown ER** (2002). Effect of glycine on synaptic transmission at the third order giant synapse of the squids *Alloteuthis subulata* and *Loligo vulgaris*. *Neuroscience Letters*. **325**: 42-46.
 26. Rogers CM, **Brown ER** (2001). Differential sensitivity to calciseptine of L-type Ca^{2+} currents in a 'lower' vertebrate (*Scyliorhinus canicula*), a protochordate (*Branchiostoma lanceolatum*) and an invertebrate (*Alloteuthis subulata*). *Experimental Physiology* **86**: 689-694.
 27. Benech JC, Lima PA, Sotelo JR, **Brown ER**. (2000). Ca^{2+} dynamics in synaptosomes isolated from the squid optic lobe. *Journal of Neuroscience Research*. **62**:840-846.

28. Rogers CM, Nelson L, Milligan BJ, **Brown ER** (1997). Different excitation - contraction (EC) coupling mechanisms exist in squid, cuttlefish and octopod mantle muscle. *Journal of Experimental Biology* **200**: 3033-3041.
29. Inoue I, Tsutsui I, **Brown ER** (1997) K^+ accumulation and K^+ conductance inactivation during action potential trains in giant axons of the squid *Sepioteuthis*. *Journal of Physiology* **500** 2, 355-366.
30. **Brown ER**, Kukita F (1996) Coupling between giant axon Schwann cells in the squid. *Proceedings of the Royal Society of London B.* **263**, 667-672.
31. Lima PA, Coelho ML, Andrade JP, **Brown ER** (1995). Patterns of schooling behaviour in *Alloteuthis subulata*. ICES C. M. Shellfish committee CM K49, 1-10.
32. Bone Q, **Brown ER**, Travers G (1994) On the respiratory flow in *Sepia officinalis*. *Journal of Experimental Biology* **194**, 153-165.
33. Inoue I, Tsutsui, I, Bone Q, **Brown ER** (1994) Evolution of skeletal muscle excitation-contraction coupling and the appearance of dihydropyridine-sensitive intramembrane charge movement. *Proceedings of the Royal Society of London B* **255**, 181-187.
34. **Brown ER** (1993) K^+ accumulation around the giant axon of the squid; comparison of electrical and morphological studies. *Japanese Journal of Physiology* **43**, s279-s284.
35. **Brown ER**, Abbott NJ (1993) The ultrastructure and permeability of the Schwann cell layer surrounding the giant axon of the squid. *Journal of Neurocytology* **22**, 283-298.
36. **Brown ER** (1992) Axon Schwann cell interaction in the squid. PhD Thesis University of London.
37. Abbott NJ, Pichon Y, **Brown ER**, Inoue I, Kukita F, Revest PA, Smith ICH, (1991) Electrophysiological properties of squid giant axon Schwann cells: relevance to K^+ clearance. *Annals of the New York Academy of Science.* **633**, 607-609.
38. **Brown ER**, Bone Q, Ryan KP, Abbott NJ (1991) Morphology and electrical properties of Schwann cells around the squid giant axon of the squids *Loligo forbesi* and *Loligo vulgaris*. *Proceedings of the Royal Society of London B.* **243**, 255-262.

Book Chapters.

1. **Brown ER**, Piscopo S (2006). Considerations for the use of 'rapid' cell superfusion and voltage-clamp to investigate the role of rare amino acids. In *D-Amino Acids: A New Frontier in Amino Acid and Protein Research -Practical Methods and Protocols-* Editors: R. Konno, H. Brückner, A. D'Aniello, G. Fisher, N. Fujii, and H. Homma. Nova Science Publishers, Hauppauge, New York, U.S.A.

2. Inoue I, Tsutsui I, **Brown, ER**, Bone Q (1996) A phylogenetic approach to understanding the molecular mechanism of striated muscle excitation-contraction coupling. *In: Basic Neuroscience In Invertebrates: Cutting Edge Research for Understanding Higher Brain Functions.* (Eds. H. Koike, M Kidokoro, K Takahasi, & T Kanaseki), Japan Scientific Societies Press, Tokyo pp45- 67.
3. Inoue I, Tsutsui I, Bone Q, **Brown ER** (1997) Evolution of skeletal muscle excitation-contraction coupling. *In: Towards molecular Biophysics of Ion Channels* (Ed. M. Sokabe & F. Sigworth), Elsevier Scientific Inc. BV Progress in Cell Research V6, 111-124.
4. Bone Q, **Brown ER**, Usher ML (1995) Cephalopod muscle fibres. In *Cephalopod Neurobiology*. eds Abbott, N. J., Williamson, R. & Maddock, L. Ch 20, 301-329.
5. Abbott NJ, **Brown ER**, Pichon Y, Kukita F (1995) Electrophysiology of squid Schwann cells. In *Cephalopod Neurobiology*. eds Abbott, N. J., Williamson, R. & Maddock, L. Ch 14, 198-212.
6. Pichon Y, Abbott NJ, **Brown, ER**, Inoue I, Revest PA (1995) Periaxonal ion regulation in the squid. In *Cephalopod Neurobiology*. eds Abbott, N. J., Williamson, R. & Maddock, L. Ch 16, 229-251.

Refereed Abstracts

Brown, ER & Fraser, P. A. (1988) Uptake and discharge of fluorescently labelled albumin from microvascular walls in the anaesthetized frog. *J. Physiol. (London)*. 403, 8P.

Abbott, N. J. & Brown, ER (1989) Effects of osmotic manipulation on extracellular routes for ion regulation in the squid Schwann cell. *J. Physiol.* 418, 16P.

Abbott, N. J., Pichon, Y. & Brown, ER. (1990) Long-term microelectrode recording from Schwann cells surrounding the isolated giant axon of the squid; steady and oscillating potentials. *J. Physiol. (Lond.)* 430, 128P.

Pichon, Y., Abbott, N. J. & Brown, ER. (1990) Long-term recordings in Schwann cells reveal multiple resting states. *Biophys. J.* 57, 5322.

Brown, ER, Bone, Q., & Abbott, N. J. (1991) Schwann cell morphology in the squid *Loligo*; implications for physiology. *J. Physiol. (Lond.)* 434, 28P.

Brown, ER & Abbott, N. J. (1992) Membrane potential in squid Schwann cells: Stable impalements in the split open giant axon preparation of *Loligo*. *J. Physiol* 446, 320P.

Brown, ER, Dewhurst, D. G. & Williams, A. D. (1994) An interactive computer-based tutorial package to teach nerve biophysics to undergraduate students. *British Journal of Pharmacology*, Proc. Supp. 111, 334P

Brown, ER, Dewhurst, D. G. & Williams, A. D. (1994) An interactive computer simulation of the squid giant axon for teaching undergraduate students *British Journal of Pharmacology*, Proc. Supp. 112, 437P.

Brown, ER, Chrachri, A., Inoue I., & Tsutsui, I. (1996) Dihydropyridine sensitive charge-movement in isolated crayfish (*Pacifastacus leniusculus*) neurons. *J. Physiol.* 491, p106.

Brown, ER, Inoue, I. & Tsutsui, I. (1996) Ion channels from isolated Schwann cells from the squid giant axon. *J. Physiol.* 495, 34p

Rogers, C. M. & Brown, ER (1996) The L-Type Ca²⁺ current in *Amphioxus*: The SCN paradox. *J. Physiol.* 495, 41p

Rogers, C. M., Milligan, B., Nelson, L. & Brown, ER (1997) Different excitation-contraction (EC) coupling mechanisms in squid, and cuttlefish mantle muscle. *J. Physiol.* 504 15P.

Lima, P. A., Messenger, J. B. & Brown, ER (1997) Monitoring cytoplasmic CaP^{2+P} in cephalopod chromatophore muscles *J. Physiol.* 504 2P.

Lima, P. A., Messenger, J. B. & Brown, ER (1998) 5HT suppresses CaP^{2+P} release from ryanodine sensitive stores in squid chromatophore muscle. *J. Physiol.* 513, 127p

Brown, ER. (1998) Axon-glia relations in the squid giant axon. *J. Physiol.* 513P, 10s

Rogers, C. M. & Brown, ER (1998) Giant fibre lobe neurons in the squid possess L-type channels. *J. Physiol.* 513P, 135.

Brown ER, Bone Q & Okamura Y (2004) Properties of the neural net that controls swimming in the ascidian *C intestinalis*. *Comp. Biochem & Physiol A* 137 s3.

Abstracts

Fraser, P. A. & Brown, ER. (1988) Uptake of fluorescently-labeled albumin by micro-vessels. *International Journal of Microcirculation*, vol.7, no.nsi, p.S 57.

Abbott, N. J., Pichon, Y., Inoue, I., Brown, ER, Lieberman, E. M., Revest, P. A. & Smith, I. C. H. (1989) Role of Schwann cells in periaxonal ion regulation in the squid. *Acta. Phys. Scand.* 136, supp. 582, P42.

Abbott, N. J., Pichon, Y., Inoue, I. & Brown, ER (1989) Schwann cells are involved in K⁺ clearance from the surface of the squid giant axon. Proc XXXIIInd Cong. Phys. Sci. Helsinki Finland. P5241.

Brown, ER & Abbott, N. J. (1989) Pathways for ion regulation in the Schwann cell layer surrounding the giant axon of the small squid *Alloteuthis subulata*. *Acta. Phys. Scand.* 136, supp. 582, P66.

Brown, ER, & Bone, Q. (1991) Repetitive stimulation of the squid giant axon exerts graded control over mantle tension. *J. Mar. Biol. Ass.* 71, 732.

Brown, ER, Usher, M. L. & Bone, Q. (1991) Physiological properties of squid mantle muscle bundles. *J. Mar. Biol. Ass.* 71, 732-733.

Lima, P. A., Coelho, M. L., Andrade, J. P. & Brown, ER, (1995) Do squid school like fish? *Abstr 12P^{thp} Intern. malacol. Congr., Vigo.* p70.

Abbott, N. J., Brown, ER, Kukita, F., Tsutsui, I. & Inoue, I. (1995) Axon-Schwann cell signalling in the squid. *Jap. J. Physiol.* 45, s2 I-4.

Inoue, I., Tsutsui, I., Brown, ER, & Bone, Q. (1995) Role of nifedipine sensitive intramembrane charge movement in excitation contraction coupling in striated muscle fibres. *Jap. J. Physiol.* 45, s2 I-8.

Brown ER, Benech JC, Sotelo HR & Piscopo S (2001) Metabotropic glutamate receptors are present on squid optic lobe synaptosomes. *British Neurosci. Assoc. Abstr.*, vol 16, P 06.14.

Brown ER, Lima PA, Tsutsui I & Inoue I (2001) Axon -to Schwann cell signalling in the squid giant axon: role of Schwann cell cytoplasmic CaP^{2+P} *British Neurosci. Assoc. Abstr.*, vol 16, P 13.05.

De Stefano R., Brown E.R., Piscopo S., Giuditta A. (2002) “Identificazione di uno stato di sonno in octopus vulgaris”, *Book of abstract (Poster)*), VII Meeting of the Italian Sleep Research Society.

Thorndyke M, Piscopo S, De Stefano R, Brown ER (2003) "Echinoderm Nervous Systems: Diversity, Development & Regeneration". 11th International Echinoderm Conference Munich 2003.

Piscopo S, De Stefano R., Thorndyke M.C. and Brown E.R. (2005) "Alteration and recovery of appetitive behaviour following nerve section in the starfish (*Asterias rubens*)". SEB Meeting 10-16 July 2005, Barcelona, Spain.

Piscopo S., D'aniello A & Brown ER. (2005) "D- and L-aspartic acid have opposing modulatory actions on L-glutamate induced gating of the ionotropic AMPA-like glutamate receptor SqGluR". 9th International congress on amino acids and Proteins, 8-12 August 2005, Vienna, Austria.

Brown ER., Piscopo S. (2005) "Evolution of motor networks, glycine, gaba and glutamate, the strange case of the ascidian *Ciona intestinalis*". National Congress of the Italian Society for Neuroscience and joint Italian-Swedish Neuroscience Meeting, 1-4 October 2005, Lacco Ameno Ischia (Napoli).

Piscopo S., Zanetti L., Ristoratore F., Francone M., Brown ER., (2005) "Biophysical properties of basal chordate neurons". National Congress of the Italian Society for Neuroscience and joint Italian-Swedish Neuroscience Meeting, 1-4 October 2005, Lacco Ameno Ischia (Napoli).

Brown ER., Idris MM & Piscopo S. (2006) "*Ciona intestinalis*: towards a functional neurobiological model". "Incontro Ascidiologi Italiani: Prospettive della ricerca sulle ascidie in Italia: un incontro informale", 3-4 April 2006, Stazione Zoologica "A.Dohrn", Napoli.

Piscopo S., Branno M., D'Aniello E., Francone M., Brown ER. (2006) "Photoreceptors in a "primitive" chordate (ascidian) are "off"-type". "5th Forum of European Neuroscience" organized by FENS, 8-12 July 2006, Vienna, (Austria).

Brown ER, Piscopo S. (2006) "Locomotion in ascidian larvae: the visceral ganglion, a single "primitive" spinal segment? "5th Forum of European Neuroscience" organized by FENS, 8-12 July 2006, Vienna, (Austria).

Piscopo S., Langella M., Brown ER. (2006) "Function of cephalopod glutamate receptors in plastic and non plastic synapses". "Bioscience 2006" 23-27 July 2006, SECC, Glasgow, (UK).

Brown ER & Piscopo S. (2006) "Glutamate receptors and the control of locomotion in the ascidian larva *Ciona intestinalis*". "Bioscience 2006", 23-27 July 2006, SECC, Glasgow, (UK).

Piscopo S., Idris MM., Brown ER. (2006) "Genes and behaviour in the larva of "*Ciona intestinalis*" "Marine Genomics, an international conference" 28 October- 1 November Hilton Sorrento Palace Congress Center, Sorrento (NA).

Brown E.R., Idris MM., & Piscopo S (2006). "The neurobiology of "*Ciona intestinalis*" larvae; coupling genome, function and behavior through glutamate receptors". "Marine Genomics, an international conference" 28 October- 1 November, Hilton Sorrento Palace Congress Center, Sorrento (NA).

Zanetti L., Ristoratore F., Russo M.T., Francone M., Piscopo S., Brown E.R. “ Primary cell cultures from the larva of ascidian *Ciona intestinalis*”. MGE Exploratory Workshop “Stem Cells in Marine Organisms” 27-28 November 2006, Istituto di Biomedicina e Immunologia Molecolare “Alberto Monroy” Area della Ricerca del CNR di Palermo.

Piscopo S., Brown ER. “ Function of cephalopod glutamate receptors in plastic and non - plastic synapses”. ‘Electrochemical Signaling by Membrane Proteins Biodiversity and principle’. 14-16 March 2007, Okazaki Congress Centre. Okazaki. Japan.

Brown ER, Piscopo S. “Evolution of glutamate receptors; focus on non-vertebrate chordates”. 27-30 September 2007 Congresso SINS 2007, Verona.

Brown ER, Piscopo S. ,Nishino A, Okamura Y. “Frank homologies between invertebrate and vertebrate chordates revealed through the neurophysiology of swimming in *Ciona* tadpoles” II scientific meeting of the Italian Ascidiologists, 30 June – 1 July 2008, University of Palermo,Palermo.

Nwurim G., Piscopo S., Brown ER. “From molecules to function: neurobiology of the ascidian tadpole“, EMBO Workshop Evo-Devo meets marine ecology, 9-11 October 2009, Sant’Angelo D’Ischia (NA).

Referees

Professor Roberto Di Lauro
President,
Stazione Zoologica 'Anton Dohrn',
Villa Comunale
80121
Napoli.

dilauro@szn.it

Prof. John G Hildebrand,
Regents Professor, and Professor of Neurobiology,
Director Arizona Research Laboratories
Division of Neurobiology
University of Arizona,
PO Box 210077
Tucson AZ 85721-0077
USA

JGH@neurobio.arizona.edu

Prof Mike Thorndyke,
Royal Swedish Academy of Sciences Distinguished
Research Chair
Sven Lovén Centre for Marine Sciences –
Kristineberg
Kristineberg 566
SE-450 34 Fiskebäckskil
SWEDEN

mike.thorndyke@marecol.gu.se

Dr Q Bone (FRS),
MBA Laboratory, Citadel Hill,
Plymouth PL1 2PB.

QB@mba.ac.uk

ERB 2011

Relationship to applicant

Current Employer

Member of the International
Advisory Board of the Zoological
Station (Neurobiology specialist)

Collaborative Institute, knows well my
capabilities at the European level

PhD Supervisor