

PUBLICATIONS

Full papers in refereed journals

1. Duchen, M.R. & McNeilly, A.S. (1980). Hyperprolactinaemia and long term post-partum lactational amenorrhoea. *Clin. Endocrinol.* 12, 621-627
2. Biscoe, T.J. & Duchen, M.R. (1985). An intracellular study of dentate, CA1 & CA3 neurones in the mouse hippocampal slice preparation. *Q. J. Exp. Physiol.*, 70, 189-202
3. Biscoe, T.J. & Duchen, M.R. (1985). An intracellular study of the actions and interactions of GABA and benzodiazepines in the mouse hippocampal slice preparation. *Q. J. Exp. Physiol.*, 70, 313-328
4. Biscoe, T.J. & Duchen, M.R. (1985). The anion selectivity of GABA-mediated post-synaptic potentials in the mouse hippocampal slice. *Q. J. Exp. Physiol.*, 70, 305-312
5. Biscoe, T.J., Duchen, M.R. & Burton, N.R. (1985). An intracellular study of the actions and interactions of N-methyl aspartate with ketamine in the mouse hippocampal slice. *Brain Res.*, 342, 149-153
6. Biscoe, T.J. & Duchen, M.R. (1986). Synaptic physiology of spinal motoneurons of normal and spastic mice: an in vitro study. *J. Physiol.*, 379, 275-292
7. Duchen, M.R. (1986). Excitation of mouse motoneurons by GABA-mediated primary afferent depolarisation. *Brain Res.*, 379, 182-187
8. Yu, Yong-Bei, Duchen, M.R. & Biscoe, T.J. (1987). Primary afferent terminal excitability in the normal and spastic mutant mouse spinal cord, (1987). *Eur. J. Pharm.*, 141, 371-382.
9. Duchen, M.R., Caddy, K.W.T., Kirby, G.C., Patterson, D.L., Ponte, J. & Biscoe, T.J. (1988). Biophysical characterisation of the cellular elements of the rabbit carotid body. *Neuroscience*, 26, 291-311.
10. Biscoe, T.J. & Duchen, M.R. (1989). Effects of cyanide on the membrane properties of Type I cells isolated from the rabbit carotid body. *J. Physiol.*, 413, 447-468.
11. Biscoe, T.J., Duchen, M.R., Eisner, D.A., O'Neill, S.C. & Valdeolmillos, M. (1989). Measurements of intracellular Ca^{2+} in Type I cells isolated from the rabbit carotid body, *J. Physiol.*, 416, 421-434.
12. Duchen, M.R. (1990) Effects of metabolic blockade on the membrane properties of single neurones dissociated from mouse dorsal root ganglia. *J. Physiol.*, 424, 387-409.
13. Duchen, M.R., Valdeolmillos, M., O'Neill, S.C. & Eisner, D.A. (1990) Effects of metabolic blockade on the regulation of intracellular Ca^{2+} in dissociated mouse dorsal root ganglion neurones. *J. Physiol.* 424, 411-426.
14. Biscoe, T.J. & Duchen, M.R. (1990). Responses of Type I cells isolated from the rabbit carotid body to hypoxia. *J. Physiol.* 428, 31-51.
15. Biscoe, T.J. & Duchen, M.R. (1990). The cellular basis of transduction in the carotid body, Invited review for *Am. J. Physiol.*, 258, L271-L278.

16. Biscoe T.J. & Duchen, M.R. (1990). How the carotid body works. Invited review for *News in Physiological Science*, 5, 229-233.
17. Tatham, P., Duchen, M.R. & Millar, J. (1991). Studies of secretion from single mast cells. *Pflugers Archiv.*, 419, 409-414.
18. Duchen, M.R. & Biscoe, T.J. (1992). Mitochondrial function in Type I cells isolated from the rabbit carotid body. *J. Physiol.*, 450, 13-31.
19. Duchen, M.R. & Biscoe, T.J. (1992). Relative mitochondrial membrane potential and $[Ca^{2+}]_i$ in Type I cells isolated from the rabbit carotid body. *J. Physiol.*, 450, 31-61.
20. Duchen, M.R. (1992). Ca^{2+} -dependent changes in the mitochondrial energetics of single mouse sensory neurones. *Biochemical Journal*, 283, 41-50.
21. Duchen, M.R., McGuinness, O., Brown, L., & Crompton, M. (1993) The role of the cyclosporin-A sensitive mitochondrial pore in myocardial reperfusion injury. *Cardiovascular Research*, 27, 1790-1794.
22. Duchen, M.R., Smith, P.A. & Ashcroft, F.M. (1993). Substrate-dependent changes in mitochondrial function, $[Ca^{2+}]_i$ and membrane channels in pancreatic beta cells in culture. *Biochemical Journal*, 294, 35-42.
23. Duchen, M.R., Nowicky, A.V. & Peuchen, S. (1993). Changes in mitochondrial function in response to changes in cytosolic Ca^{2+} concentration. *Biomedical Research*, 14, suppl. 2, 139-146.
24. Pearce, R.J. & Duchen, M.R. (1994). Differential expression of membrane currents in dissociated mouse primary sensory neurons. *Neuroscience*, 63(4), 1041-1056.
25. Pearce, R.J. & Duchen, M.R. (1995). Electrophysiological and metabolic effects of a convulsant barbiturate on dissociated mouse sensory neurons. *J. Physiol.*, 483(2), 407-420.
26. Smith, P.A., Duchen, M.R. & Ashcroft, F.M. (1995). A fluorimetric and amperometric study of calcium and secretion in isolated mouse pancreatic - cells. *Pflugers. Arch.*, 430, 808-818.
27. Peuchen, S., Duchen, M.R. & Clark, J.B. (1996). Energy metabolism of adult astrocytes *in vitro*. *Neuroscience*, 71, 855-870.
28. Peuchen, S., Clark, J.B. & Duchen, M.R. (1996) Mechanisms of intracellular calcium regulation in adult astrocytes. *Neuroscience*, 71, 871-883
29. Leyssens, A., Nowicky, A.V., Patterson, D.L., Crompton, M., and Duchen, M.R., (1996). The relationship between mitochondrial state, ATP hydrolysis, $[Mg^{2+}]_i$ and $[Ca^{2+}]_i$ studied in isolated rat cardiomyocytes. *J. Physiol.*, 496, 111-128
30. Peuchen, S., Bolanos, J.P., Heales, S., Duchen, M.R. & Clark, J.B. (1997). Interrelationships between astrocyte function, oxidative stress and antioxidant status in the CNS. *Prog. in Neurbiol.* (invited review), 52, 261-281.
31. Mojet, M.H., Mills, E. & Duchen, M.R. (1997) Hypoxia-induced catecholamine secretion in isolated newborn rat adrenal chromaffin cells is mimicked by inhibition of mitochondrial respiration. *J. Physiol.*, 504, 175-189.

32. Nowicky, A.V. & Duchen, M.R. (1998). Changes in $[Ca^{2+}]_i$ and membrane currents in response to impaired mitochondrial metabolism in dissociated rat hippocampal neurons. *J. Physiol.*, 507(1), 131-146
33. Duchen, M.R., Leyssens, A. & Crompton, M. (1998). Transient mitochondrial depolarisations in response to focal SR calcium release in single rat cardiomyocytes., *J. Cell Biol.*, 142, 975-988.
34. Duchen, M.R (1999). Mitochondrial contributions to animal physiology: from homeostatic sensor to calcium signalling and cell death. *J. Physiol.* (topical review) 516, 1-17.
35. Boitier, E. Rea R. & Duchen. M.R. (1999) Mitochondria exert a negative feedback control on the propagation of intracellular $[Ca^{2+}]_i$ waves in adult rat cortical astrocytes: *J. Cell. Biol.*, 145: 795-808.
36. Vergun, O., Keelan, J., Khodorov, B.I & Duchen, M.R. (1999) Glutamate-induced mitochondrial depolarization and perturbation of calcium homeostasis in cultured rat hippocampal neurons *J. Physiol.*, 519 (1), 451-467.
37. Keelan, J., Vergun, O. and Duchen, M.R. (1999) Excitotoxic mitochondrial depolarisation requires both calcium and nitric oxide in rat hippocampal neurons. *J Physiol (Lond)*. 520(Pt 3):797-813.
38. Duchen, MR (2000). Mitochondria and calcium: from cell signalling to cell death. *J. Physiol. Symposium review*, 529(1), 57-68.
39. Duchen, MR. (2000). Mitochondria and calcium in cell physiology and pathophysiology. *Cell Calcium*, 28, 339-348.
40. Vergun, O., Sobolevsky, A.I., Yelshansky, MV, Keelan, J. , Khodorov, B.I., Duchen, MR. (2001) Exploration of the role of reactive oxygen species in glutamate neurotoxicity in rat hippocampal neurones in culture, 531: 147-163.
41. Beltran B, Mathur A, Duchen MR, Erusalimsky JD, Moncada S. (2000) The effect of nitric oxide on cell respiration: A key to understanding its role in cell survival or death. *Proc Natl Acad Sci U S A.*, 97(26):14602-14607.
42. Rakhit, R.D., Mojet, M.H., Marber, M.S. and Duchen, M.R. (2001) Mitochondria as targets for ntric oxide induced protection during simulated ischaemia and re-oxygenation in isolated neonatal cardiomyocytes. *Circulation*, 103: 2617 - 2623
43. Keelan, J., Allen, N.J., Antcliffe, D., Pal, S and Duchen, M.R. (2001) Quantitative imaging of glutathione in hippocampal neurons and glia in culture using monochlorobimane. *Journal of Neuroscience Research*, 66, 873-884.
44. Jacobson, J. & Duchen, M.R. (2001). What nourishes me, destroys me: towards a new mitochondrial biology. *Cell Death and Differentiation*, 8, 93-96
45. Jacobson, J. & Duchen, R.R. (2002). Mitochondrial oxidative stress and cell death in astrocytes -- requirement for stored Ca^{2+} and sustained opening of the permeability transition pore *J Cell Sci.*, 115 1175-1188
46. Song G, Harding SE, Duchen MR, Tunwell R, O'Gara P, Hawkins TE, Moss SE. (2002). Altered mechanical properties and intracellular calcium signaling

- in cardiomyocytes from annexin 6 null-mutant mice. *FASEB J.*, 16(6):622-4.
47. Casley C.S., Land J.M., Sharpe, M.A., Clark J.B., Duchen M.R. & Canevari L. (2002) β -Amyloid fragment 25-35 causes mitochondrial dysfunction in primary cortical neurons. *Neurobiology of Disease*, 10, 258-67,
 48. Duchen, MR & Surin, AL. (2002). On the roles of mitochondria and calcium in glutamate induced neurotoxicity in hippocampal neurons in culture. *Biologichesky Membrany*. 19, 4-16.
Or Duchen MR, Surin A. *Membr. Cell Biol.* 19, 4 (2002)
 49. Krieger C. & Duchen, MR. (2002). Mitochondria, calcium and neurodegenerative disease. *European Journal of Pharmacology*; 447(2-3):177-88.
 50. Jacobson, J, Duchen, MR & Heales, SJR (2002) Intracellular distribution of the fluorescent dye nonyl-acridine orange responds to the mitochondrial membrane potential: implications for assays of cardiolipin and mitochondrial mass. *J. Neurochem.* 82, 224-233.
 51. Abramov, AY and Duchen, MR. (2003) Actions of ionomycin, 4-BrA23184 and a novel Ca^{2+} ionophore on mitochondria in intact cells. *Cell* Abramov, AY, Canevari, L. & Duchen, M.R. (2003)
 52. Abramov AY, Canevari L, Duchen MR (2003) Changes in $[\text{Ca}^{2+}]_c$ and glutathione in astrocytes as the primary mechanism of amyloid neurotoxicity. *J Neurosci.*, 23, 5088-5095
 53. Duchen, M.R. (2004) Roles of mitochondria in health and disease (invited review). *Diabetes*, 53 Suppl 1: S96-S102
 54. Duchen, M.R., Surin, A. & Jacobson, J. (2003). Imaging mitochondrial function in intact cells. In *Biophotonics, Methods in Enzymology*, Eds., Ian Parker and Gerard Marriott. Vol., 361, vol 17, pp353-389.
 55. Canevari, L, Abramov, A. Y & Duchen, M. R. (2003). Toxicity of Amyloid β peptide: tales of calcium, mitochondria and oxidative stress, 29(3):637-50
 56. Monastyrskaya EA, Andreeva LV, Duchen MR, Manukhina EB, Malyshev IY. (2003) Direct and cross-protective effects of heat adaptation in cultured cells. *Bull Exp Biol Med.* 135(2):127-9.
 57. Monastyrskaya EA, Duchen MR, Andreeva LV, Viegant F, Manukhina EB, Malyshev IY. 2003 Antiapoptotic effect of heat adaptation in cultured cells. *Bull Exp Biol Med.*; 135(2):123-6.
 58. Hausenloy DJ, Duchen MR, Yellon DM. (2003) Inhibiting mitochondrial permeability transition pore opening at reperfusion protects against ischaemia-reperfusion injury. *Cardiovasc Res.*, 60(3): 617-25.
 59. Jacobson, J and Duchen, MR. (2004) Interplay between mitochondria and cellular calcium signaling. *Molecular and Cellular Biochemistry*, 256, 209-218.
 60. Abramov AY, Canevari L, Duchen MR. (2004) Beta-amyloid peptides induce mitochondrial dysfunction and oxidative stress in astrocytes and death of neurons through activation of NADPH oxidase. *J Neurosci.*, 24(2): 565-75.
 61. Rizzuto R, Duchen MR, Pozzan T. (2004) Flirting in little space: the ER/mitochondria Ca^{2+} liaison. *Science STKE.*, (215): re1.

62. Duchen, M.R. (2004). Mitochondria, health and disease: perspectives of a new mitochondrial biology. *Molecular Aspects of Medicine*, 25(4):365-451.
63. Hausenloy, D., Wynne, A., Duchen, M.R. and Yellon, D.M. (2004) Transient mitochondrial permeability transition pore opening mediates preconditioning induced protection. *Circulation*, 109(14): 1714-7.
64. Ahluwalia, J., Tinker, A., Clapp, L.H., Duchen, MR, Abramov, AY, Pope, S., Nobles M and Segal AW (2004) The large conductance Ca^{2+} -activated K^+ (BK_{Ca}) channel is essential for innate immunity. *Nature*, 427(6977):853-8
65. Duchen MR. (2004) Roles of mitochondria in health and disease. *Diabetes*, 53 Suppl 1: S96-S102.
66. Hausenloy DJ, Yellon DM, Mani-Babu S, Duchen MR. (2004). Preconditioning protects by inhibiting the mitochondrial permeability transition. *Am J Physiol Heart Circ Physiol*. 287(2):H841-9.
67. Canevari L, Abramov AY, Duchen MR. (2004) Toxicity of amyloid beta peptide: tales of calcium, mitochondria, and oxidative stress. *Neurochem Res.*, .29(3): 637-50.
68. Dumollard R, Marangos P, Fitzharris G, Swann K, Duchen M, Carroll J. (2004) Sperm-triggered $[Ca^{2+}]$ oscillations and Ca^{2+} homeostasis in the mouse egg have an absolute requirement for mitochondrial ATP production. *Development*, 131(13):3057-67.
69. Jia, H, Bhagerzadeh A, Bicknell R, Duchen MR, Liu D, Zachary I. (2004). Vascular endothelial growth factor (VEGF)-D and VEGF-A differentially regulate KDR-mediated signalling and biological function in vascular endothelial cells. *J Biol Chem*. 2004; 279(34):36148-57.
70. Shanmuganathan S, Hausenloy D, Duchen M, Yellon D. (2004) Inhibiting mitochondrial permeability transition pore opening protects the human heart from lethal reoxygenation injury. *Cardiovasc J S Afr*. 2004 Jul; 15(4 Suppl 1):S11.
71. Abramov AY, Canevari L, Duchen MR. (2004) Calcium signals induced by amyloid beta peptide and their consequences in neurons and astrocytes in culture. *Biochim Biophys Acta.*, 1742(1-3):81-7.
72. Pitter JG, Szanda G, Duchen MR, Spat A. (2005) Prostaglandin F(2alpha) potentiates the calcium dependent activation of mitochondrial metabolism in luteal cells. *Cell Calcium*. 2005 Jan; 37(1): 35-44.
73. Abramov AY, Canevari L, Duchen MR. (2005) expression and modulation of an NADPH oxidase in mammalian astrocytes. *J Neuroscience*. 25(40): 9176-84
74. Jacobson J, Duchen MR, Hothersall J, Clark JB, Heales SJ. (2005) Induction of mitochondrial oxidative stress in astrocytes by nitric oxide precedes disruption of energy metabolism. *J Neurochem*. 95(2):388-95.
75. Shanmuganathan S, Hausenloy DJ, Duchen MR, Yellon DM. (2005) Mitochondrial permeability transition pore as a target for cardioprotection in the human heart. *Am J Physiol Heart Circ Physiol.*; 289(1):H237-42
76. Abramov, AY, Duchen, MR (2005) The role of an astrocytic NADPH oxidase in the neurotoxicity of amyloid beta peptides *Phil Trans Roy Soc. Philos Trans R Soc Lond B Biol Sci*. 2005 Dec 29; 360(1464): 2309-14

77. Davidson SM, Hausenloy D, Duchen MR, Yellon DM. (2005) Signalling via the reperfusion injury signalling kinase (RISK) pathway links closure of the mitochondrial permeability transition pore to cardioprotection. *Int J Biochem Cell Biol.* 2006 Mar; 38(3):414-9.
78. Smart N, Mojet MH, Latchman DS, Marber MS, Duchen MR, Heads RJ. (2005) IL-6 induces PI 3-kinase and nitric oxide-dependent protection and preserves mitochondrial function in cardiomyocytes. *Cardiovasc Res.* 2006 Jan; 69(1):164-77.
79. Davidson, SM and Duchen, MR (2006). Effects of NO on mitochondrial function in cardiomyocytes: Pathophysiological relevance. *Cardiovascular Research*, 71(1):10-21.
80. Dumollard R, Duchen M, Sardet C. (2006) Calcium signals and mitochondria at fertilisation. *Semin Cell Dev Biol.* 17(2):314-23.
81. Brennan JP, Southworth R, Medina RA, Davidson SM, Duchen MR, Shattock MJ. (2006) Mitochondrial uncoupling, with low concentration FCCP, induces ROS-dependent cardioprotection independent of K(ATP) channel activation. *Cardiovasc Res.* 72(2):313-21.
82. Brennan JP, Berry RG, Baghai M, Duchen MR, Shattock MJ. (2006) FCCP is cardioprotective at concentrations that cause mitochondrial oxidation without detectable depolarisation. *Cardiovasc Res.*, 72(2):322-30.
83. Dumollard R, Duchen M, Carroll J. (2007) The role of mitochondrial function in the oocyte and embryo. *Curr Top Dev Biol.*, 77:21-49.
84. Abramov AY, Scorziello A, Duchen MR. (2007) Three distinct mechanisms generate oxygen free radicals in neurons and contribute to cell death during anoxia and reoxygenation. *J Neurosci.*, 27(5): 1129-38.
85. Dumollard R, Ward Z, Carroll J, Duchen MR. (2007) Regulation of redox metabolism in the mouse oocyte and embryo. *Development.* 134(3):455-65.
86. Davidson SM, Duchen MR. (2006) Calcium microdomains and oxidative stress. *Cell Calcium*; 40(5-6):561-74.
87. Davidson SM, Duchen MR. (2007) Endothelial mitochondria: contributing to vascular function and disease. *Circ Res.*; 100(8):1128-41.
88. Abramov AY, Fraley C, Diao CT, Winkfein R, Colicos MA, Duchen MR, French RJ, Pavlov E. (2007) Targeted polyphosphatase expression alters mitochondrial metabolism and inhibits calcium-dependent cell death. *Proc Natl Acad Sci U S A.* 104(46):18091-6
89. McKenzie M, Liolitsa D, Akinshina N, Campanella M, Sisodiya S, Hargreaves I, Nirmalanathan N, Sweeny MG, Abou-Sleiman PM, Wood NW, Hanna MG, Duchen MR. (2007) Mitochondrial ND5 gene variation associated with encephalomyopathy and mitochondrial ATP consumption. *J Biol Chem.*; 282(51):36845-52.
90. Davidson SM, Yellon D, Duchen MR. (2007) Assessing mitochondrial potential, calcium, and redox state in isolated mammalian cells using confocal microscopy. *Methods Mol Biol.* 372:421-30.
91. Abramov, AY and Duchen, MR. (2008) Mechanisms underlying the loss of mitochondrial membrane potential in glutamate excitotoxicity, *BBA bioenergetics*, 1777(7-8):953-64.

92. Szabadkai, G and Duchen MR, (2008) Mitochondria: The Hub of Cellular Ca²⁺ Signaling, *Physiology*, 23(2):84-94.
93. Duchen MR, Verkhratsky A, Muallem S. (2008) Mitochondria and calcium in health and disease. *Cell Calcium*. 44(1):1-5.
94. Wood-Kaczmar A, Gandhi S, Yao Z, Abramov AS, Miljan EA, Keen G, Stanyer L, Hargreaves I, Klupsch K, Deas E, Downward J, Mansfield L, Jat P, Taylor J, Heales S, Duchen MR, Latchman D, Tabrizi SJ, Wood NW. (2008) PINK1 Is Necessary for Long Term Survival and Mitochondrial Function in Human Dopaminergic Neurons. *PLoS ONE.*, 3(6):e2455
95. Hall AM, Unwin, Hanna MG and Duchen MR. (2008) New insights into mitochondrial cytopathies and their relevance to the kidney. *Quarterly Journal of Medicine*, 1777(7-8):953-64.
96. Campanella, M, Casswell, E, Chong, S, Farah, Z, Wieckowski, MR, Abramov,AY, Tinker, A and Duchen, MR. (2008) The cell biology of IF₁: a major regulator of mitochondrial structure and function. *Cell Metabolism*, 8(1):13-25.
97. Milton R.H., Abeti R., Averaimo S., DeBiasi S., Vitellaro L., Jiang L., Curmi P.M.G., Breit S.N., Duchen M.R. and Mazzanti M. (2008) CLIC1 function is required for beta-amyloid induced generation of reactive oxygen species by microglia, *J Neurosci*. 28(45):11488-99
98. L.G. Bilsland, N. Nirmalanathan, J. Yip, L. Greensmith & M.R. Duchen (2008) Expression of mutant SOD1G93A in astrocytes induces functional deficits in motoneuron mitochondria. *J Neurochem*. 107(5):1271-83
99. Hall A, Unwin RJ, Duchen MR. (2009) Imaging mitochondrial function in intact rat kidney slices by multi-photon microscopy. *Journal of the American Society for Nephrology*. 20(6):1293-302
100. Cantley, J., Selman, C., Shukla, D., Abramov, AY, Forstreuter, F., Estban, M., Claret, M., lingard, SJ., Clements, M., Harten., SK., Asare-Anane, H., Batterham, RL., Herrera, PL., Persaud, SJ., Duchen MR., Maxwell., PH Withers, DJ. Deletion of the von-Hippel-Lindau gene in pancreatic β cells impairs glucose homeostasis in mice. *J Clin Invest.*, 2009 Jan; 119(1):125-35
101. Gandhi S, Wood-Kaczmar A, Yao Z, Deas E, Klupsch K, Downward J, Latchman D, Tabrizi J, Wood N, Duchen MR and Abramov AY. (2009) PINK1 associated Parkinson's disease is caused by neuronal vulnerability to calcium induced cell death. *Molecular Cell*, 33(5), 627-638
102. Campanella, M, Seraphim, A, Casswell, E, Echave P, Abeti R and Duchen MR (2009) IF1, the F₁F_o-ATP synthase endogenous regulator, defines mitochondrial volume fraction in HeLa cells by regulating autophagy BBA (bioenergetics) in the press.
103. Campanella, M., Parker, N., Tan, C-H., Hall AM., Duchen MR (2009) IF1: setting the pace of the F₁F_o-ATP synthase, *Trends in Biochemical Sciences*, Jul;34(7):343-50.
104. Szabadkai, G and Duchen, MR (2009) Mitochondria mediated cell death in Diabetes. *Apoptosis*. 14(12):1405-23
105. Abramov and Duchen (2009) Impaired mitochondrial bioenergetics determines glutamate-induced delayed calcium deregulation in neurons. *BBA*

106. Mann, ZF, Duchen MR & Gale JE (2009) Mitochondria modulate the spatio-temporal properties of intra and intercellular Ca²⁺ signals in cochlear supporting cells. *Cell Calcium*, 46(2):136-46.
107. Dumollard R, Carroll J, Duchen MR, Campbell K, Swann K Mitochondrial function and redox state in mammalian embryos. *Semin Cell Dev Biol*. 2009 May;20(3):346-53.
108. Galkin A, Abramov AY, Frakich N, Duchen MR, Moncada S. Lack of oxygen deactivates mitochondrial complex I: implications for ischemic injury? *J Biol Chem*. 2009 284(52):36055-61.
109. Echave, P, Machado-da-Silva, G, Arkell, RS, Duchen MR, Jacobson, J, Mitter, R and Lloyd AC (2009) Extracellular growth factors and mitogens cooperate to drive mitochondrial biogenesis. *J Cell Sci*, 122(Pt 24):4516-25.
110. Andrey Y. Abramov⁵, Tora K. Smulders-Srinivasan², Denise M. Kirby^{2,3}, Rebeca Acin-Perez⁴, José Antonio Enriquez⁴, Robert N. Lightowlers², Michael R. Duchen^{*1}, Doug M. Turnbull^{*2} (2010) Mechanism of neurodegeneration of neurons with mitochondrial DNA mutations, *Brain*, (in the press)

Book CHAPTERS and other non-refereed contributions

- Duchen, M.R., Biscoe, T.J & Valdeolmillos, M. (1990). Biophysical studies of cells of the rabbit carotid body. In 'Arterial Chemoreception', pp 31-44, Eds., Eyzaguirre, C., Fidone, S.J., Fitzgerald, R.S., Lahiri, S. & McDonald, D.M. Springer-Verlag, N.Y.
- Duchen, M.R. & Biscoe, T.J. (1991). Mechanisms of arterial chemoreception; studies of isolated cells of the carotid body. Invited chapter for 'Developmental Biology of Breathing', pp. 289-320, vol 53 of a series 'Lung Biology in Health and Disease', Eds., G.G. Haddad and J.P Farber, Marcel Dekker Inc., .
- Duchen, M.R. (1991). Fluorescence - monitoring cellular chemistry in vivo. In 'Monitoring Neuronal Function', pp. 231-260, Ed. J. Stamford, IRL press, Oxford.
- Duchen, M.R. (1991). Fluorescence probes - major new tools in cell biology. UCL Science
- Essay for the Physiological Society magazine: Mitochondria in animal physiology: a whimsical perspective; 1998.
- Mojet, M., Jacobson, D.J., Keelan, J., Vergun, O., & Duchen, M.R. (2000) Monitoring mitochondrial function in single cells In Tepikin, A (Ed) 'Calcium Signalling' Pub. IRL Press, OUP, Oxford. pp 79-110.
- Duchen, M., Mojat, M., Jacobson, D.J., Keelan, J., Vergun, O. (2001) Imaging mitochondrial function in single cells. In 'Methods in Cellular Imaging' Ed. Ammasi Periasamy, pub. American Physiological Society. 88-111
- Duchen, M.R. (2003). Mitochondria and calcium signalling; point counter point. In Handbook of Cell Signalling, Ed. Michael Berridge. Chapter 135, pp. 73-77.
- Novartis Foundation Symposium 'Signalling Pathways in Acute oxygen sensing. Chair and introduction. Pub Wiley , 2006
- Duchen MR 'Imaging mitochondrial physiology' in Advanced Live Cell Imaging special issue of imaging and Microscopy, 2007.

Dumollard, R, Duchen MR and Carroll J, The Role of mitochondrial function in the oocyte and embryo In 'The mitochondrion in the germline and early development' Ed J St John, Current topics in Developmental Biology, 77, 22-51, 2007.

Novartis Foundation Symposium 'Mitochondrial Biology: New Perspectives' organizer editor. Pub Wiley 2007

Szabadkai G and Duchen MR "Mitochondria as Organizers of the Cellular Ca²⁺ Signaling Network," In Handbook of Cellular Signalling, in the press.