



## Curriculum Vitae

Personal information **Donald Walker**

Work experience

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1. Employer: Pfizer

- Start date: 011986
- End date: 042010
- Position: Research Fellow
- Activities: • Member of Global PDM Development Strategies Group with personal role as Scientific Lead (Europe) • Direct support as departmental representative for various late stage drug development programs and approved products • Developing strategic direction for department in support of late stage portfolio, focussing on aspects of ADME science to facilitate drug development and registration and add value to the Pfizer portfolio (e.g. in areas of pharmacogenetics, paediatric pharmacokinetics, metabolite characterisation strategy, drug registration and regulatory perspectives) • Mentorship of PDM scientists in support of development programs • Local leadership to communicate and share science associated with drug development candidates at the Sandwich site • Member of the Global PDM Development Committee, to provide scientific oversight in support of the global late\_stage portfolio
- Country: United Kingdom

Education and training

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1. Subject: University of London

- Start date: 101978
- End date: 061981
- Qualification: BSc Biochemistry and Chemistry
- Organisation:
- Country: United Kingdom

Additional information

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Publications

The effect of phytol upon skeletal muscle damage in vitamin E deficient animals.' S. Krywawych, M.J. Jackson, C. Forte, P.J. Garrod, D.K. Walker and D.P. Brenton. *J Inher Metab Dis*, 8 111\_112 (1985). 2. '3\_methyladipate excretion in animals fed a phytol supplement with reference to Refsum's Disease.' S. Krywawych, D.P. Brenton, M.J. Jackson, C. Forte, and D.K. Walker. *J Inher Metab Dis*, 8 147\_148 (1985). 3. 'Neuronal maturation in the foetal brain in Down's syndrome.' B.W.L. Brooksbank, D. Walker, R. Balazs, O.S. Jorgensen. *Early Human Development*, 18 237\_246 (1989). 4. 'A double\_blind, placebo\_controlled parallel group study of the effect of UK\_68,798, a novel class III antiarrhythmic agent, on the pharmacokinetics and pharmacodynamics of digoxin.' H.S. Rasmussen, D. Kleinerhans, D.K. Walker, W.G. Rapeport. *Eur Heart J*, 11 (suppl.) 57 (1990). 5. 'Measurement of the class III antidysrhythmic drug, UK\_68,798, in plasma by radioimmunoassay.' D.K. Walker, G.W. Aherne, J.E. Arrowsmith, P.E. Cross, B. Kaye, D.A. Smith, D.A. Stopher, W. Wild. *J Pharm Biomed Anal*, 9, 141\_149 (1991). 6. 'Liquid\_liquid extraction, and high\_performance liquid chromatography, for the determination of a novel antidysrhythmic agent (UK\_68,798) in human urine.' D.K. Walker, D.A. Smith and D.A. Stopher. *J Chromatogr*, 568, 475\_480 (1991). 7. 'Pharmacodynamics and pharmacokinetics of the novel class III antiarrhythmic drug UK\_68,798 in man.' T.C.K. Tham, B.A. MacLennan, D.V.G. Harron, P.E. Coates, D.K. Walker and H.S. Rasmussen. *Br J Clin Pharmacol*, 31, 243P\_244P (1991). 8. 'Pharmacokinetic and pharmacodynamic effects of UK\_68,798, a new class III antiarrhythmic drug.' M. Sedgewick, H.S. Rasmussen, D.K. Walker and S.M. Cobbe. *Br J Clin Pharmacol*, 31, 515\_9 (1991). 9. 'Pharmacokinetics and metabolism of dofetilide in mouse, rat, dog and man.' D.A. Smith, H.S. Rasmussen, D.A. Stopher and D.K. Walker. *Xenobiotica*, 22, 709\_719 (1992). 10. 'Demonstration of the hepatic uptake of amlodipine using the rat isolated perfused liver.' D.K. Walker, M.J. Humphrey and D.A. Smith. *Br J Clin Pharmacol*, 34, 150P (1992). 11. 'Delineation of the uptake and biliary secretion of indocyanine green in the rat isolated perfused liver.' I.B. Gardner, D.K. Walker, D.A. Smith, M.S. Lennard and G.T. Tucker. *Br J Clin Pharmacol*, 34, 162P (1992). 12. 'Bioanalytical data in decision making: discovery and development.' D.A. Smith, K. Beaumont, N.J. Cussans, M.J. Humphrey, S.G. Jezequel, D.J. Rance, D.A. Stopher and D.K. Walker. *Xenobiotica*, 22, 1195\_1205 (1992). 13. 'Importance of metabolic stability and hepatic distribution to the pharmacokinetic profile of amlodipine.' D.K. Walker, M.J. Humphrey and D.A. Smith. *Xenobiotica*, 24, 243\_250 (1994). 14. 'Formation, physical properties and pharmacological activity of the metabolites of dofetilide: In vitro studies.' D.K. Walker, C.T. Alabaster, G.S. Congrave, B.C. Jones and D.A. Smith. *Br J Clin Pharmacol*, 37, 499\_500P (1994). 15. 'Interaction of dofetilide with cytochrome P450 enzymes.' B.C. Jones, R. Hyland, D.A. Smith and D.K. Walker. *Br J Clin Pharmacol*, 38, 170P (1994). 16. 'Comparison of the disposition of two novel combined thromboxane synthase inhibitors/thromboxane A2 receptor antagonists in the isolated perfused rat liver.' I.B. Gardner, D.K. Walker, M.S. Lennard, D.A. Smith and G.T. Tucker. *Xenobiotica*, 25, 185\_197 (1995). 17. 'Differentiation of compounds which bind to P450 isozymes CYP2C9 and CYP3A4 by physicochemical properties' D.K. Walker, B.C. Jones and D.A. Smith. *Br J Clin Pharmacol*, 40, 178P (1995). 18. 'Significance of metabolism in the disposition and action of the antidysrhythmic drug, dofetilide. In vitro studies and correlation with in vivo data.' D.K. Walker, C.T. Alabaster, G.S. Congrave, M.B. Hargreaves, R. Hyland, B.C. Jones, L.J. Reed and D.A. Smith. *Drug Metab Dispos*, 24, 447\_455 (1996). 19. 'Design of drugs involving the concepts and theories of drug metabolism and pharmacokinetics.' D.A. Smith, B.C. Jones and D.K. Walker. *Med Res Rev*, 16, 243\_266 (1996). 20. 'The pharmacokinetics of sildenafil (Viagra) after single intravenous and oral solution doses to mouse, rat and dog.' D.J. Rance, F.M. Atkinson, G.C. James, F. Macintyre, D.K. Walker and P. Wastall. *Br J Clin Pharmacol*, 42, 267\_268P (1996). 21. 'Pharmacokinetics of a series of bis(methanesulphonamido\_arylalkyl)amines in the beagle dog.' D.K. Walker, K.C. Beaumont, D.A. Stopher and D.A. Smith. *Xenobiotica*, 26, 1101\_1111 (1996). 22. 'Automated 96\_well solid phase extraction for the determination of doramectin in cattle plasma' A. C. Harrison, D. K. Walker, *J Pharm Biomed Anal*, 16, 777\_783 (1998). 23. 'Bovine and rat serum albumin: effects in the clearance of UK\_277,008 in the isolated perfused rat liver (IPRL)' R. Webster, S. Jezequel and D. Walker. *Exp Toxic Pathol*, 50, 144P (1998). 24. 'Pharmacokinetics and metabolism of sildenafil in

mouse, rat, rabbit, dog and man' D.K. Walker, M.J. Ackland, G.C. James, G.J. Muirhead, D.J. Rance, P. Wastall, P.A. Wright. *Xenobiotica*, 29, 297\_310 (1999). 25. 'Pharmacokinetics of a thromboxane synthase inhibitor, UK\_141,161 in rat, rabbit, dog and man' D.K. Walker, K.S. Hall, G.J. Muirhead, M.J. Page and D.A. Smith. *Br J Clin Pharmacol*, 48, 884\_885P (1999). 26. 'Pharmacokinetics of a thromboxane receptor antagonist, UK\_147,535 in rat, rabbit, dog and man' D.K. Walker, K.S. Hall, G.J. Muirhead, M.J. Page, D.A. Smith and W. Wild. *Br J Clin Pharmacol*, 48, 885P (1999). 27. 'An investigation into the use of accelerator mass spectrometry (AMS) in clinical ADME studies' A.N. Nedderman, M.E. Savage, S.J. Roffey, J.I. Gedde, D.K. Walker and C. Garner. *Drug Metab Rev*, 32, suppl. 1, p85 (2000). 28. 'A sensitive method for the measurement of the novel pet endectocide, selamectin, in dog and cat plasma by chemical derivatisation and hplc with fluorescence detection' D.K. Walker and K.S. Fenner. *J Pharm Biomed Anal*, 24, 105\_111 (2000). 29. 'Property based design: optimisation of drug absorption and pharmacokinetics' H. van de Waterbeemd, D.A. Smith, K. Beaumont and D.K. Walker. *J Med Chem*, 44, 1313\_1333 (2001). 30. 'The Drug Metabolism Discussion Group in 2001' P. Andrews, P. Jeffrey, S. Roberts, D. Walker and R. Weaver. *Xenobiotica*, 31, 457\_458 (2001). 31. 'Potential role for P<sub>2</sub> glycoprotein in the non\_proportional pharmacokinetics of UK\_343,664 in man' S. Abel, K.C. Beaumont, C.L. Crespi, M.D. Eve, L. Fox, R. Hyland, B.C. Jones, G.J. Muirhead, D.A. Smith, R.F. Venn and D.K. Walker. *Xenobiotica*, 31, 665\_676 (2001). 32. 'Pharmacokinetics and metabolism of a selective PDE5 inhibitor (UK\_343,664) in rat and dog' D.K. Walker, K.C. Beaumont, P. Comby, K.M. Evans, J.I. Gedde, R.C. Halliday, S.J. Roffey and P.A. Wright. *Xenobiotica*, 31, 651\_664 (2001). 33. 'Pharmacokinetic/pharmacodynamic assessment of the effects of E4031, cisapride, terfenadine and terodiline on monophasic action potential duration in dog' R. Webster, G. Allan, A. Anto\_Awuakye, A. Harrison, T. Kidd, D. Leishman, J. Phipps and D.K. Walker. *Xenobiotica*, 31, 633\_650 (2001). 34. 'Absorption, distribution, metabolism and excretion considerations in the selection of orally active indole containing endothelin antagonist' D.K. Walker, K.N. Dack, R.P. Dickinson, K.S. Fenner, K. James, D.J. Rawson and D.A. Smith. *Drug Metab Dispos*, 29, 1424\_1431 (2001). 35. 'Pharmacokinetics and Metabolism in Drug Design' D.A. Smith, H. van de Waterbeemd and D.K. Walker. *Methods and Principles in Medicinal Chemistry*, Volume 13. Eds R. Mannhold, H. Kubinyi and H. Timmerman. Wiley\_VCH Verlag GmbH, Weinheim. (2001). 36. 'Effects of E\_4031, cisapride, terfenadine and terodiline on monophasic action potential duration (MAPD) and incidence of Torsade de Pointes (TdP) in the dog' D.J. Leishman, M. Douthwaite, T. Kidd, P. Merner, D.K. Walker, H. West and R.M. Wallis. *Br J Pharmacol*, 133, 131P (2001). 37. 'Toward a drug concentration effect relationship for QT prolongation and torsades de pointes' R. Webster, D. Leishman and D. Walker. *Curr Opin Drug Disc & Dev*, 5, 116\_126 (2002). 38. 'Comparative human pharmacokinetics and metabolism of single\_dose oral and intravenous sildenafil citrate' G.J. Muirhead, D.J. Rance, D.K. Walker and P. Wastall. *Br J Clin Pharmacol*, 53, 13S\_20S (2002). 39. 'Pharmacokinetics of selamectin following intravenous, oral and topical administration in cats and dogs' P. Sarasola, A.D. Jernigan, D.K. Walker, J. Castledine, D.G. Smith and T.G. Rowan. *J Vet Pharmacol Therap*, 25, 265\_272 (2002). 40. 'Pharmacokinetics and disposition of a novel NMDA glycine site antagonist (UK\_240,455) in rats, dogs and man' R. Webster, S. Cole, J. Gedde, S. Roffey, D. Walker and W. Wild. *Xenobiotica*, 33, 541\_560 (2003). 41. 'Evaluation of the role of the asialoglycoprotein receptor in the clearance of UK\_279,276 (recombinant neutrophil inhibitory factor)' R. Webster, J. Phipps, R. Hyland and D. Walker. *Xenobiotica*, 33, 945\_956 (2003). 42. 'The disposition of voriconazole in mouse, rat, rabbit, guinea pig, dog and human' S.J. Roffey, S. Cole, P. Comby, D. Gibson, S.G. Jezequel, A.N.R. Nedderman, D.A. Smith, D.K. Walker and N. Wood. *Drug Metab Dispos*, 31, 731\_741 (2003). 43. 'The use of 96\_well Scintiplates to facilitate definitive metabolism studies for drug candidates' A.N.R. Nedderman, M.E. Savage, K.L. White and D.K. Walker. *J Pharm Biomed Anal*, 34, 607\_617 (2004). 44. 'The use of pharmacokinetic and pharmacodynamic data in the assessment of drug safety in early drug development' D.K. Walker. *Br J Clin Pharmacol*, 58, 601\_608 (2004). 45. 'The design and synthesis of a novel, orally active, selective ETA antagonist' D.J. Rawson, K.N. Dack, K. James, C. Long and D.K. Walker. *Med Chem Res*, 13, 149\_157 (2004). 46. 'Species differences in the disposition of the CCR5 antagonist, UK\_427,857, a new potential treatment for HIV' D.K. Walker, S. Abel, P. Comby, G.J. Muirhead, A.N.R. Nedderman and D.A. Smith. *Drug Metab Dispos*, 33, 587\_595 (2005). 47. 'Pharmacokinetics and Metabolism in Drug Design - 2nd Edition' D.A. Smith, H. van de Waterbeemd and D.K. Walker. *Methods and Principles in Medicinal Chemistry*, Volume 31. Eds R. Mannhold, H. Kubinyi and G. Folkers. Wiley\_VCH Verlag GmbH, Weinheim. (2006). 48. 'Pharmacokinetics and clearance processes of UK\_279,276 (rNIF) in rat and dog: Comparison with human data' R. Webster, A. Edgington, J. Phipps and D.K. Walker. *Xenobiotica*, 36, 341\_349 (2006). 49. 'Inhaled adenosine A2a receptor agonists for the treatment of chronic obstructive pulmonary disease' S.J. Mantell, P.T. Stephenson, S.M. Monaghan, G.N. Maw, M.A. Trevethick, M. Yeadon, R.F. Keir, D.K. Walker, R.M. Jones, M.D. Selby, D.V. Batchelor, S. Rozze, H. Chavaroché, T.J. Hobson, P.G. Dodd, A. Lemaitre, K.N. Wright and E.F. Stuart. *Biorg. Med. Chem. Lett.*, 18, (2008) 50. 'Assessment of the absorption, metabolism and absolute bioavailability of maraviroc in healthy male subjects' S. Abel, D. Russell, A. Whitlock, C.E. Ridgway, A.N.R. Nedderman and D.K. Walker. *Br J Clin Pharmacol* 65 (suppl. 1) 60\_67 (2008). 51. 'Preclinical assessment of the distribution of maraviroc to potential human immunodeficiency virus (HIV) sanctuary sites in the central nervous system (CNS) and gut associated lymphoid tissue (GALT)' D.K. Walker, S.J. Bowers, R.J. Mitchell, M.J. Potchoiba, C.M. Schroeder and H.F. Small. *Xenobiotica*, 38, 1330\_1339 (2008). 52. 'PEGylation of somatropin (recombinant human growth hormone): Impact on its clearance in humans' R. Webster, R. Xie, E. Didier, R. Finn, J. Finnessy, A. Edgington and D. Walker. *Xenobiotica*, 38, 1340\_1351 (2008). 53. 'Applications of High\_Sensitivity Mass Spectrometry and Radioactivity Detection Techniques in Drug Metabolism Studies' W.W. Lam, C.M. Lo, A. Nedderman and D. Walker. In: *Mass Spectrometry in Drug Metabolism and Pharmacokinetics*. Ed. R. Ramanathan. Wiley Inc., New York (2008). 54. 'Determination of a potent urokinase\_type plasminogen activator, UK\_356,202, in plasma at pg/mL levels using column\_switching HPLC and fluorescence detection' M.A.J. Bayliss, R.F. Venn, A.M. Edgington, R. Webster and D.K. Walker. *Journal of Chromatography B*, 877, 121\_126 (2009). 55. 'SAR of a series of inhaled A2A agonists and comparison of inhaled pharmacokinetics in a preclinical model with clinical pharmacokinetic data' S.J. Mantell, P.T. Stephenson, S.M. Monaghan, G.N. Maw, M.A. Trevethick, M. Yeadon, D.K. Walker, M.D. Selby, D.V. Batchelor, S. Rozze, H. Chavaroché, A. Lemaitre, K.N. Wright, L. Whitlock, E.F. Stuart, P.A. Wright and F. Macintyre. *Bioorganic and Medicinal Chemistry Letters*. 19, 4471\_4475 (2009). 56. 'Species differences in the multiple\_dose pharmacokinetics of the non\_nucleoside reverse transcriptase inhibitor (NNRTI) UK\_453,061 in animals and man: implications for safety considerations' D.K. Walker, J. Davis, C. Houle, I.B. Gardner and R. Webster. *Xenobiotica*. 39, 534\_543 (2009). 57. 'PEG and PEG conjugates toxicity: towards an understanding of the toxicity of PEG and its relevance to PEGylated biologicals' R. Webster, V. Elliott, B.K. Park, D. Walker, M. Hankin and P. Taupin. In: *PEGylated Protein Drugs: Basic Science and Clinical Applications*. Ed. F.M. Veronese. Birkhauser Verlag, Switzerland, pp 127\_146 (2009). 58. 'Pharmacokinetics in Man' D.J. Nichols and D.K. Walker. In: *International Pharmaceutical Product Registration (2nd Edition)*. Eds. A. Cartwright and B.R. Matthews. Informa Healthcare, London, pp 520\_536 (2009). 59. 'A holistic strategy for characterizing the safety of metabolites through drug discovery and development' D. Walker, J. Brady, D. Dalvie, J. Davis, M. Dowty, J.N. Duncan, A. Nedderman, R.S. Obach and P. Wright. *Chemical Research in Toxicology*, 22, 1653\_1662 (2009). 60. 'The application of fully automated on\_line solid phase extraction in bioanalysis' R.J. Mitchell, R. Christian, H. Hughes, A. Miah and D.K. Walker. *Journal of Pharmaceutical and Biomedical Analysis*, 52, 86\_92 (2010). 61. 'The use of Cav rather than AUC in safety assessment' D.A. Smith, P. Morgan, W.M. Vogel and D.K. Walker. *Regulatory Toxicology and Pharmacology*, 57, 70\_73 (2010). 62. 'Primary, secondary and tertiary amines and their isosteres' D.K. Walker, R.M. Jones, A.N.R. Nedderman and P.A. Wright. In: *Metabolism, Pharmacokinetics and Toxicity of Functional Groups*. Ed. D.A. Smith. Royal Society of Chemistry, London, pp 168\_209 (2010). 63. 'Human Genotoxic Metabolites: identification and Risk Management' K. Dobo, D. Walker and A. Teasdale. In: *Genotoxic Impurities: Strategies for Identification and Control*. Ed. A. Teasdale. John Wiley and Sons, Inc., Hoboken, pp 151\_167 (2011). 64. 'Metabolite Testing in Drug Development' A.N.R. Nedderman and D.K. Walker. In: *Pharmacokinetics in Drug Development: Advances and Applications*, Volume 3. Eds. P.L. Bonate and D.R. Howard. Springer Science and Business Media LLC, New York, pp 131\_143 (2011). 65. 'Antenatal Sildenafil Treatment Attenuates Pulmonary Hypertension in Experimental Diaphragmatic Hernia' K. Luong, J. Rey\_Perra, A. Vadivel, G. Gilmour, Y. Sauve, D. Koonen, D. Walker, K.G. Todd, P. Gressens, Z. Kassiri, K. Nadeem, B. Morgan, F. Eaton, J.R. Dyck, S.L. Archer and B. Thebaud. *Circulation*, 123, 2120\_2131 (2011). 66. 'Pharmacokinetics and Metabolism in Drug Design - 3rd Edition' D.A. Smith, C. Allerton, A. Kaigutkar, H. van de Waterbeemd and D.K. Walker. *Methods and Principles in Medicinal Chemistry*, Volume 51. Eds R. Mannhold, H. Kubinyi and G. Folkers. Wiley\_VCH Verlag GmbH, Weinheim. (2012). 67. 'In silico modeling for the non\_linear absorption kinetics of UK\_343,664: a P<sub>2</sub>gp and CYP3A4 substrate' B.S. Abusala, M.B. Bolger, D.K. Walker and A. Kaddoumi. *Molecular Pharmaceutics*, DOI: 10.1021/mp200275j (2012). 68. 'Improved safety margin for embryo\_toxicity in rats for the new endoperoxide artefenomel (OZ439) as compared to artesunate' R.L. Clark, T.L. Edwards, M. Longo, J. Kinney, D.K. Walker, J. Rhodes, S.A. Clode, T. Ruckle, T. Wells, N. Andenmatten and A.C. Huber. *Birth*

Defects Research, 1–26. <https://doi.org/10.1002/bdr2.1170> (2017).

**Projects** Consultant to various pharmaceutical companies for Drug Metabolism and Pharmacokinetic expertise across drug discovery and development programmes across a wide range of therapeutic areas and via various routes of administration

**Memberships** Member of the British Pharmacological Society (BPS) 1995 \_ 2010 and International Society for the Study of Xenobiotics (ISSX) 1996 \_ 2010. Member of International Society for the Study of Xenobiotics (ISSX) Committee on Regulatory Affairs (CORA) 2008 \_ 2010.

**Other Relevant Information** Committee member of the Drug Metabolism Discussion Group (DMDG) 1996 \_ 2001; secretary (1996 \_ 1997); chairman (1997 \_ 1999). Tutor on the DMDG Preclinical Pharmacokinetics Course (1996 \_ present). Organising Committee member of the UK and European DMPK Development Managers Group (2002 – 2007). Lecturer at Management Forum \_ Pharmacokinetic Workshop, 1996 – 2010 “The use of pharmacokinetic and metabolic studies in candidate drug selection” Lecturer at University of Surrey \_ Modular Training Programme in Applied Toxicology, 1999 – 2015 “Pharmacokinetics and Drug Metabolism”, “Application of Toxicokinetics and Metabolism Studies in Drug Development” and “Methods for Studying Drug Metabolism in Man” Lecturer at University of London on MSc course \_ Drug Discovery and Development, 2000 – 2021 “Pharmacokinetics and Drug Metabolism in Drug Discovery” Lecturer European Federation for Medicinal Chemistry Short Course on Medicinal Chemistry, 2009 \_ 2010. “Importance of adequate pharmacokinetics” and “PK assays and their interpretation for drug design teams”. Editorial Advisory Board Member for Current Drug Safety Journal 2005 \_ 2009. Ad hoc manuscript reviewer for Xenobiotica and Drug Metabolism and Disposition.