

**EDUCATION:**

1965 - 1974	Our Lady's Convent High School, Loughborough 9 GCE 'O' Levels
1974 - 1976	Loughborough Technical College GCE 'A' Levels; Mathematics, Physics, Chemistry
1980 - 1983	De Montfort University B. Sc. (Hons.) Pharmacy Class: First
1984 - 1988	University of Bath Ph. D. Pharmacology Cardiovascular Control by Central Beta-Adrenoceptors in the Rat

**EMPLOYMENT:**

1976 - 1980	Riker Laboratories, Loughborough Pharmaceutical Research and Development
1983 - 1984	Leicestershire Area Health Authority Pre-Registration Year
1987 - 1988	Leicester General Hospital Resident Pharmacist
1988 - 1989	Lewisham Hospital Pharmacist Grade D Residency & Research
1989 - 1993	Washington University School of Medicine Department of Cardiology, Postdoctoral Research Fellow
1993 - 1997	University of Arkansas for Medical Sciences Department of Pathology, Research Assistant Professor
1997-2002	Saint Louis University School of Medicine Department of Pathology, Assistant Professor
Present	Saint Louis University School of Medicine Department of Pathology, Associate Professor

**SOCIETY MEMBERSHIPS:**

Royal Pharmaceutical Society of Great Britain  
American Heart Association  
American Physiological Society  
International Society for Heart Research

**PUBLICATIONS:**

**Manuscripts:**

1. Wu, J., **McHowat, J.**, Saffitz, J.E., Yamada, K.A., Corr, P.B. Inhibition of gap junctional conductance by long-chain acylcarnitines and their preferential accumulation in junctional sarcolemma during hypoxia. *Circ. Res.* 1993; 72, 879-889
2. Yan, G-X., Yamada, K.A., Kleber, A.G., **McHowat, J.**, Corr, P.B. Dissociation between cellular K<sup>+</sup> loss, reduction in repolarization time and tissue ATP levels during myocardial hypoxia and ischemia.

Circ. Res. 1993; 72, 560-570

3. **McHowat, J.**, Yamada, K.A., Saffitz, J.E., Corr, P.B. Subcellular distribution of endogenous long chain acylcarnitines during hypoxia in adult canine myocytes. *Cardiovasc. Res.* 1993; 27, 1237-1243

4. **McHowat, J.**, Corr, P.B. Thrombin-induced release of lysophosphatidylcholine from endothelial cells. *J. Biol. Chem.* 1993; 268, 15605-15610

5. **McHowat, J.**, Yamada, K.A., Wu, J., Yan, G-X., Corr, P.B. Recent insights pertaining to sarcolemmal phospholipid alterations underlying arrhythmogenesis in the ischemic heart. *J. Cardiovasc. Electrophys.* 1993; 4, 288-310

6. Yamada, K.A., **McHowat, J.**, Yan, G-X., Donahue, K., Peirick, J., Kleber, A.G., Corr, P.B. Cellular uncoupling induced by accumulation of long-chain acylcarnitine during ischemia. *Circ. Res.* 1994; 74, 83-95

7. **McHowat, J.**, Corr, P.B. Biochemical membrane mechanisms underlying arrhythmias during myocardial ischemia and their role in sudden cardiac death. In: *Sudden Cardiac Death*, Akhtar, Myerburg & Ruskin eds., Williams & Wilkins, Philadelphia, 1994; 82-101

8. Ido, Y., **McHowat, J.**, Chang, K.C., Arrigoni-Martelli, E., Orfalian, Z., Kilo, C., Corr, P.B., Williamson, J.R. Neural dysfunction and metabolic imbalances in diabetic rats: Prevention by acteyl-l-carnitine, *Diabetes* 1994; 43, 1469-1477

9. Corr, P.B., Yamada, K.A., Creer, M.H., Wu, J., **McHowat, J.**, Yan, G-X. Amphipathic lipid metabolites and arrhythmias during ischemia. In: *Cardiac Electrophysiology, From Cell To Bedside*, Zipes & Jalife eds., Saunders, Philadelphia, 1994; 182-203

10. Park, T.H., **McHowat, J.**, Wolf, R.A., Corr, P.B. Increased lysophosphatidylcholine content induced by thrombin receptor stimulation in adult cardiac ventricular myocytes, *Cardiovasc. Res.* 1994; 28, 1263-1268

11. Corr, P.B., **McHowat, J.**, Yan, G-X., Yamada, K.A. Lipid derived amphiphiles and their contribution to arrhythmogenesis during ischemia. In: *Physiology and Pathophysiology of the Heart*, Sperelakis ed., Kluwer Academic, 1995, 527-545

12. **McHowat, J.**, Creer, M.H. High-molecular weight intracellular calcium-independent phospholipase A<sub>2</sub> (cPLA<sub>2</sub>), in: *Phospholipase A<sub>2</sub> in Clinical Inflammation: Endogenous Regulation and Pathophysiologic Actions*. CRC Series on Pharmacology and Toxicology: Basic and Clinical Aspects, K.B. Glaser and P. Vadas, editors, 1995; 75-92

13. **McHowat, J.**, Jones, J.H., Creer, M.H. Quantitation of individual phospholipid molecular species by UV absorption measurements. *J Lipid Res.* 1996; 37, 2450-2460

14. **McHowat, J.**, Liu, S. Interleukin-1 $\beta$  stimulates phospholipase A<sub>2</sub> activity in adult rat ventricular myocytes, *Am. J. Physiol.* 1997; 272, C450-C456

15. **McHowat, J.**, Jones, J.H., Creer, M.H. A gradient-elution, reverse phase high performance liquid chromatographic technique for the separation of individual phospholipid molecular species, *J. Chromatog. B.* 1997; 702, 21-32

16. **McHowat, J.**, Creer, M.H. Lysophosphatidylcholine accumulation in cardiomyocytes requires thrombin activation of Ca<sup>2+</sup>-independent PLA<sub>2</sub>, *Am. J. Physiol.* 1997; 272, H1972-H1980

17. **McHowat, J.**, Creer, M.H. Thrombin activates a membrane-associated calcium-independent PLA<sub>2</sub> in ventricular myocytes, *Am. J. Physiol.* 1998; 274, C447-C454

18. **McHowat, J.**, Liu, S., Creer, M.H. Selective hydrolysis of plasmalogen phospholipids by Ca<sup>2+</sup>-independent PLA<sub>2</sub> in hypoxic ventricular myocytes. *Am. J. Physiol.* 1998; 274, C1727-C1737

19. Liu, S., **McHowat, J.** Stimulation of different phospholipases A<sub>2</sub> by tumor necrosis factor- $\alpha$  and interleukin-1 $\beta$  in adult ventricular myocytes. *Am. J. Physiol.* 1998; 275, H1462-H1472

20. **McHowat, J.**, Creer, M.H. Calcium-independent phospholipase A<sub>2</sub> in isolated rabbit ventricular myocytes. *Lipids*, 1998; 33, 1203-1212

21. Creer, M.H., **McHowat, J.** Selective hydrolysis of plasmalogens in endothelial cells following thrombin stimulation. *Am. J. Physiol.* 1998; 275, C1498-C1507
22. **McHowat, J.**, Creer, M.H. Selective plasmalogen substrate utilization by thrombin-stimulated  $\text{Ca}^{2+}$ -independent  $\text{PLA}_2$  in cardiomyocytes. *Am. J. Physiol.* 2000; 278, H1933-H1940
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24. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Phospholipase  $\text{A}_2$ s in cell injury and death. *J. Pharmacol. Exp. Ther.* 2000; 294, 793-799
25. **McHowat, J.**, Creer, M.H. Biologic and mechanistic diversity of mammalian phospholipase  $\text{A}_2$  ( $\text{PLA}_2$ ). In: *Recent Research Developments in Lipids*, 2000; 4, 13-24
26. **McHowat, J.**, Tappia, P.S., Liu, S-Y, McCrory, R.D., Panagia, V. Redistribution and abnormal activity of cardiac phospholipase  $\text{A}_2$  isoenzymes in post-infarct congestive heart failure. *Am. J. Physiol.*, 2001; 280, C573-C580
27. **McHowat, J.**, Creer, M.H., Rickard, A. Stimulation of protease-activated receptors on RT4 cells mediates arachidonic acid release via  $\text{Ca}^{2+}$ -independent  $\text{PLA}_2$  ( $\text{iPLA}_2$ ). *J. Urol.*, 2001; 165, 2063-2067
28. **McHowat, J.**, Swift, L.M., Arutunyan, A., Sarvazyan, N. Clinical concentrations of doxorubicin inhibit activity of myocardial membrane-associated calcium-independent phospholipase  $\text{A}_2$ . *Cancer Res.*, 2001; 61, 4024-4029
29. **McHowat, J.**, Kell, P.J., O'Neill, H.B., Creer, M.H. Endothelial cell PAF synthesis following thrombin stimulation utilizes  $\text{Ca}^{2+}$ -independent phospholipase  $\text{A}_2$ . *Biochemistry*, 2001; 40, 14921-14931
30. **McHowat, J.**, Creer, M.H. Comparative roles of phospholipase  $\text{A}_2$  isoforms in cardiovascular pathophysiology. *Cardiovasc. Toxicol.* 2001; 1, 253-265
31. **McHowat, J.**, Swift, L.M., Sarvazyan, N. Oxidant-induced inhibition of myocardial calcium-independent phospholipase  $\text{A}_2$ . *Cardiovasc. Toxicol.* 2001; 1, 309-316
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33. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Role of an endoplasmic reticulum  $\text{Ca}^{2+}$ -independent phospholipase  $\text{A}_2$  in oxidant-induced renal cell death. *Am. J. Physiol.*, 2002; 283, F492-F498
34. Maggi, L.B., Moran, J.M., Scarim, A.L., Ford, D.A., Yoon, J-W., **McHowat, J.**, Buller, M.L., Corbett, J.A. Novel role for calcium-independent Phospholipase  $\text{A}_2$  in the macrophage antiviral response of inducible nitric-oxide synthase expression. *J. Biol. Chem.* 2002; 277, 38449-38455
35. Rickard, A., **McHowat, J.** Production of phospholipid metabolites following cleavage of protease-activated receptors on human urothelial cells. *Am. J. Physiol.* 2002; 283, F944-F951
36. Steer, S.A., Wirsig, K.C., Creer, M.H., Ford, D.A., **McHowat, J.** Regulation of membrane-associated  $\text{iPLA}_2$  activity by a novel PKC in ventricular myocytes. *Am. J. Physiol.* 2002; 283, C1621-C1626
37. Swift, L., **McHowat, J.**, Sarvazyan, N. Inhibition of membrane-associated calcium-independent phospholipase  $\text{A}_2$  as a potential culprit of anthracycline cardiotoxicity. *Cancer Res.* 2003; 63, 5992-5998
38. Liu, S.J., Creer, M.H., Kennedy, R.H., **McHowat, J.** Alterations in  $\text{Ca}^{2+}$  cycling by lysophasmenylcholine in adult rabbit ventricular myocytes. *Am. J. Physiol.* 2003; 284, C826-C838
39. Thukkani, A.K., **McHowat, J.**, Hsu, F.-F., Hazen, S.L., Ford, D.A. Identification of  $\alpha$ -chloro fatty aldehydes and unsaturated lysophosphatidylcholine in human atherosclerotic lesions: P-selectin activation by unsaturated lysophosphatidylcholine. *Circulation* 2003; 108, 3128-3133
40. **McHowat, J.** The cardiovascular consequences of calcium-independent phospholipase  $\text{A}_2$  activation.

- In: Recent Research Developments in Physiology, 2003; 1, 521-538
41. Kell, P.J., Creer, M.H., Crown, K.N., Wirsig, K., **McHowat, J.** Inhibition of platelet-activating factor (PAF) acetylhydrolase by methyl arachidonyl fluorophosphonate potentiates PAF synthesis in thrombin-stimulated human coronary artery endothelial cells. *J. Pharmacol. Exp. Ther.* 2003; 307, 1163-1170
  42. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Role of an endoplasmic reticulum  $\text{Ca}^{2+}$ - independent phospholipase  $\text{A}_2$  in cisplatin- induced renal cell apoptosis. *J Pharmacol Exp Ther.* 2004; 308, 921-928
  43. Ray, R.B., Basu, A., Steele, R., Beyene, A., **McHowat, J.**, Meyer, K., Ghosh, A.K., Ray, R. Ebola virus glycoprotein mediated anoikis of primary human cardiac microvascular endothelial cells. *Virology*, 2004; 321, 181-188
  44. **McHowat, J.**, Creer, M.H. Catalytic features, regulation and function of myocardial phospholipase  $\text{A}_2$ . *Current Med. Chem.* 2004; 2, 209-218
  45. Meyer, M., **McHowat, J.** The role of platelet-activating factor in the adherence of circulating cells to the endothelium. *Recent Research Developments in Physiology* 2004; 2, 129-147
  46. Cummings, B.S., Gelasco, A.K., Kinsey, G.R., **McHowat, J.**, Schnellmann, R.G. Inactivation of endoplasmic reticulum bound  $\text{Ca}^{2+}$ - independent phospholipase  $\text{A}_2$  in renal cells during oxidative stress. *J. Am. Soc. Nephrol.* 2004;15, 1441-51.
  47. **McHowat, J.**, Swift, L., Crown, K.N., Sarvazyan, N. Changes in phospholipid content and myocardial calcium-independent phospholipase  $\text{A}_2$  activity during chronic anthracycline administration. *J Pharmacol. Exp. Ther.* 2004; 311, 736-741
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  50. Kinsey, G.R., Cummings, B.S., Beckett, C.S., Saavedra, G, Zhang, W., **McHowat, J.**, Schnellman, R.G. Identification and distribution of endoplasmic reticulum  $\text{iPLA}_2$  *Biochem. Biophys. Res. Comm.* 2005; 327, 287-293
  51. Rickard, A., Portell, C., Kell, P.J., Vinson, S.M., **McHowat J.** Protease activated receptor stimulation activates a calcium-independent phospholipase  $\text{A}_2$  in bladder microvascular endothelial cells. *Am. J. Physiol.* 2005; 288, F714-F721
  52. Meyer, M.C., Rastogi, P., Beckett, C.S., **McHowat, J.** Phospholipase  $\text{A}_2$  inhibitors as potential anti-inflammatory agents. *Current Pharmaceutical Design* 2005; 11, 1301-1312
  53. Patrick, C.B., Goldstein, D.S., **McHowat, J.**, Rosenberger, T.A., Rapoport, S.I., Murphy, E.J. Arachidonic acid incorporation and turnover is decreased in sympathetically denervated rat heart. *Am. J. Physiol.* Accepted for publication 1/19/2005
  54. Moran, J.M., Buller, R.M., **McHowat, J.**, Turk, J., Wohltmann, M., Gross, R.W., Corbett, J.A. Genetic and pharmacologic evidence that  $\text{iPLA}_2\beta$  regulates virus-induced iNOS expression by macrophages *J. Biol. Chem.*, in review
  55. Meyer, M.C., Kell, P.J., **McHowat, J.** Inflammation and atherosclerosis: A potential role for mast cell derived tryptase in the recruitment of mast cell precursors *Am. J. Physiol.*, in review
  56. Vinson, S.M., Rickard, A., McHowat, J. Neutrophil adherence to bladder microvascular endothelial cells following platelet-activating factor acetylhydrolase inhibition. *J. Pharm. Exp. Ther.*, in review

#### Abstracts:

1. Draper, A.J., Redfern, P.H., **McHowat, J.** Hypotension induced by central injection of isoprenaline and clenbuterol: Modification by propranolol. *Br. J. Pharmacol.* 1986; 88, 454P
2. Draper, A.J., Redfern, P.H., **McHowat, J.** Cardiovascular changes following administration of adrenaline and isoprenaline to the hypothalamus of the anaesthetised rat. *Br. J. Pharmacol.* 1987; 90,

385P

3. **McHowat, J.**, Corr, P.B. Thrombin induced increases in lysophosphatidylcholine derived from endothelial cells. *Circulation* 1991; 84, II-274
4. Wu, J., **McHowat, J.**, Saffitz, J.E., Corr, P.B. Long-chain acylcarnitines induce reversible uncoupling in adult canine myocytes. *Circulation* 1991; 84, II-325
5. **McHowat, J.**, Yamada, K.A., Saffitz, J.E., Corr, P.B. Rapid and selective accumulation of long-chain acylcarnitines in the sarcolemma of adult myocytes. *Circulation* 1991; 84, II-495
6. **McHowat, J.**, Corr, P.B. Mechanisms underlying the thrombin induced increase in lysophosphatidylcholine in endothelial cells. *Circulation* 1992; 86, I-740
7. **McHowat, J.**, Corr, P.B. Thrombin induced increases in lysophosphatidylcholine in adult ventricular myocytes. *Circulation* 1992; 86, I-821
8. Yan, G-X., Yamada, K.A., Kleber, A.G., **McHowat, J.**, Corr, P.B. Dissociation between cellular  $K^+$  loss, reduction in repolarization time and tissue ATP levels during myocardial hypoxia and ischemia. *Circulation* 1992; 86, I-215
9. Yamada, K.A., Yan, G-X., **McHowat, J.**, Kleber, A.G., Corr, P.B. Sulfonyleureas partially inhibit cellular  $K^+$  loss during myocardial hypoxia without influencing action potential shortening. *Circulation* 1992; 86, I-4
10. **McHowat, J.**, Yan, G-X., Yamada, K.A., Donahue, K., Kleber, A.G., Corr, P.B. Cellular uncoupling induced by long-chain acylcarnitine during ischemia. *Circulation* 1992; 86, I-752
11. Park, T.H., **McHowat, J.**, Corr, P.B. Mechanisms underlying the increase in lysophosphatidylcholine induced by thrombin in adult ventricular myocytes. *Circulation* 1993; 88, I-326
12. Schnellmann, R.G., Blum, S.M., Miller, G.W., Creer, M.H., **McHowat, J.** Novel roles of phospholipase  $A_2$  in cellular injury. *J. Am. Soc. Nephrol.* 1994; 5, 931
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14. **McHowat, J.**, Creer, M.H. Thrombin stimulates a calcium-independent, plasmalogen-selective phospholipase  $A_2$  (PLA $_2$ ) in isolated myocytes. *FASEB J.* 1995; 9, A621
15. Creer, M.H., **McHowat, J.** Stimulation of a calcium-independent, plasmalogen-selective phospholipase  $A_2$  (PLA $_2$ ) in hypoxic myocytes. *FASEB J.* 1995; 9 A49
16. Liu, S., **McHowat, J.** Interleukin-1 $\beta$  increases phospholipase  $A_2$  activity in adult rat ventricular myocytes, *J. Mol. Cell. Cardiol.* 1996; 28, A197
17. **McHowat, J.**, Creer, M.H. Thrombin activates a unique calcium-independent, membrane-associated PLA $_2$  in endothelial cells, *J. Mol. Cell. Cardiol.* 1996; 28, A148
18. **McHowat, J.**, Creer, M.H. Activation of PLA $_2$  is required for lysophosphatidylcholine (LPC) production following thrombin stimulation of hypoxic cardiac myocytes, *J. Mol. Cell. Cardiol.* 1996; 28, A198
19. **McHowat, J.**, Creer, M.H. Isolated cardiac myocytes possess a novel, membrane-associated PLA $_2$  activated by thrombin, *J. Mol. Cell. Cardiol.* 1996; 28, A197
20. **McHowat, J.**, Creer, M.H. Thrombin activates a unique membrane-associated calcium-independent ether-phospholipid selective PLA $_2$  in rabbit ventricular myocytes, *Circulation* 1996; 94, I-726
21. **McHowat, J.**, Creer, M.H. Lysophosphatidylcholine (LPC) accumulation during ischemia is dependent on phospholipase  $A_2$  activation and augmented by net inhibition of LPC catabolism, *Circulation* 1996; 94, I-726
22. **McHowat, J.**, Creer, M.H. Thrombin stimulation of endothelial cells activates a unique calcium-independent, integral membrane-associated PLA $_2$ , *Circulation* 1996; 94, I-587
23. **McHowat, J.**, Tappia, P.S., Liu, S-Y., Panagia, V. Redistribution of cardiac phospholipase  $A_2$  isoforms in post-infarct congestive heart failure. *J. Mol. Cell. Cardiol.* 1999; 31, A29

24. **McHowat, J.**, Creer, M.H. Selective plasmalogen catabolism by PLA<sub>2</sub> in thrombin-stimulated myocytes. *J. Mol. Cell. Cardiol.* 1999; 31, A27
25. Liu, S.J., **McHowat, J.**, Creer, M.H. Effects of lysoplasménylcholine on membrane currents in ventricular myocytes. *J. Mol. Cell. Cardiol.* 1999; 31, A27
26. Kennedy, R.H., **McHowat, J.**, Liu, S.J. The role of PLA<sub>2</sub> and PKC isoforms in the cardiac effects of TNF- $\alpha$  and IL-1 $\beta$ . *Shock*, 1999
27. **McHowat, J.**, Creer, M.H. Phospholipase A<sub>2</sub>-catalyzed hydrolysis of plasmalogen phospholipids in thrombin-stimulated platelets. *Circulation* 1999; 100, I-403
28. **McHowat, J.**, O'Neill, H.B., Rohrbach, J.M., Creer, M.H. Phospholipase A<sub>2</sub>-mediated phospholipid metabolism in thrombin-stimulated endothelial cells. *Circulation* 1999; 100, I-415
29. **McHowat, J.**, Creer, M.H. Phospholipid metabolism in hypoxic rabbit ventricular myocytes. *Circulation* 1999; 100, I-274
30. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Inhibition of a microsomal Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> decreases cisplatin-induced apoptosis in renal proximal tubular cells. *J. Am. Soc. Nephrol.* 2000; 11, 599A
31. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Inhibition of a microsomal Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> increases oxidant-induced apoptosis in renal proximal tubular cells. *Toxicol. Sci.* 2000; 54 (Suppl), 404
32. J.McHowat, L. Swift, A. Arutunyan, N.Sarvazyan. Inhibition of cardiomyocyte phospholipase A<sub>2</sub> activity by clinical concentrations of doxorubicin. *Free Radical Biology and Medicine*, 2000; 29 (S1), 135.
33. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Oxidant-induced oncosis and lipid peroxidation are increased by inhibition of a microsomal Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> in renal cells. *Toxicol. Sci.* 2001; 60 (Suppl), 306
34. Cummings, B.S., **McHowat, J.**, Schnellmann, R.G. Role of novel endoplasmic reticulum Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> and 5-lipoxygenase in cisplatin-induced renal cell apoptosis. *J. Am. Soc. Nephrol.* 2001; 12, 799A
35. Sarvazyan, N., Swift, L.M., Kell, P.J., **McHowat, J.** Oxidant-induced inhibition of phospholipase A<sub>2</sub> activity and its role in potentiation of oxidative stress., *J. Mol. Cell. Cardiol.* 2001; 33, A105
36. **McHowat, J.**, and Rickard, A. Tryptase stimulation of human urothelial cells stimulates Ca-in-dependent Phospholipase A<sub>2</sub>. *FASEB J.* 2002; 16, A805
37. **McHowat, J.**, and Steer, S.A. Protein kinase C- $\epsilon$  mediates increased Ca-independent Phospholipase A<sub>2</sub> activity in thrombin-stimulated rabbit ventricular myocyte microsomes. *FASEB J.* 2002; 16, A161
38. **McHowat, J.**, Creer, Meyer, M. Characteristics of polymorphonuclear leukocytes isolated from umbilical cord blood. *FASEB J.* 2003; 17, A119
39. **McHowat, J.**, Beckett, C. Identification of thrombin-stimulated PLA<sub>2</sub> isoforms in cardiac cells. *FASEB J.* 2003; 17, A119
40. **McHowat, J.**, Wirsig, K. Activation of MAP kinases in thrombin-stimulated ventricular myocytes. *FASEB J.* 2003; 17, A119
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43. Swift, L., **McHowat, J.**, Arutunyan, A., Sarvazyan, N. Anthracycline analogues and inhibition of myocardial iPLA<sub>2</sub>. *FASEB J.* 2003; 17, A652
44. Cummings, B.S., Gelasco, A.K., **McHowat, J.**, Kinsey, G.R., Schnellmann, R.G. Evidence for the direct inactivation of endoplasmic reticulum bound Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> in renal cells

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Curriculum Vitae

April 2005

during oxidative stress. J. Am. Soc. Nephrol. 2003

45. Meyer, M., Kell, P.J., Rickard, A., **McHowat, J.** Activation of calcium-independent phospholipase A<sub>2</sub> in tryptase-stimulated human bladder endothelial cells. Cardiovasc. Pathol. 2004; 13, S114

46. Meyer, M., Kell, P.J., **McHowat, J.** Protein kinase C regulated calcium-independent phospholipase A<sub>2</sub> activity in human coronary artery endothelial cells. Cardiovasc. Pathol. 2004; 13, S51

47. Crown, K.N., Kell, P.J., **McHowat, J.** Calcium-independent Phospholipase A<sub>2</sub>-catalyzed hydrolysis of membrane phospholipids is accelerated in human coronary artery endothelial cells exposed to hypoxia. ATVB 2004

48. Kell, P.J., **McHowat, J.** Release of choline lysophospholipids from endothelial cells. ATVB 2004

49. **McHowat, J.**, Meyer, M.C. Role of platelet-activating factor in the recruitment of mast cell precursors to atherosclerotic plaques. Experimental Biology 2005

50. Rickard, A., **McHowat, J.** Characterization and reepithelialization of urothelium. Experimental Biology 2005

51. Vinson, S.M., **McHowat, J.**, Rickard, A. Inhibition of PAF acetylhydrolase by MAFP in bladder microvascular endothelial cells Experimental Biology 2005

#### **Grant Support:**

American Heart Association, Missouri Affiliate Fellowship, Characterization of the Biochemical Mechanisms Mediating the Electrophysiologic Derangements During Ischemia, July 1991-Dec 1992

American Heart Association, Arkansas Affiliate, Grant-In-Aid, Principal Investigator, Electrophysiologic Sequelae of Ischemia-Induced Alterations in Lysoplasmalogen Catabolism, July 1994-June 1995

University of Arkansas for Medical Sciences, Pilot Study Award, Principal Investigator, Mechanisms and Pathophysiologic Effects of LPC Production in Endothelial Cells, Awarded Nov 1994

American Health Assistance Foundation, Starter Grant, Principal Investigator, Plasmalogen-Selective PLA<sub>2</sub> Activation in Ischemia, April 1995-March 1996

American Heart Association, National Center, Grant-In-Aid, Principal Investigator, Lysoplasmenecholone Metabolism in Ischemic Myocardium and its Potential Electrophysiologic Significance, July 1995-Sept 1996

Public Health Service, NHLBI R-29 FIRST award, Principal Investigator, Plasmalogen-Selective PLA<sub>2</sub> Activation in Ischemia, September 1996-August 2000

American Heart Association, Arkansas Affiliate, Grant-In-Aid, Principal Investigator, Lysophospholipid Release From Endothelial Cells, Aug 1996-July 1997

American Heart Association, Missouri Affiliate, Grant-In-Aid, Principal Investigator, Characterization of Lysophospholipid Release from Thrombin-Stimulated Human Endothelial Cells, July 1998-June 2000

American Heart Association, Heartland Affiliate, Grant-In-Aid, Principal Investigator, Lysoplasmenecholone Release from Thrombin-Stimulated Human Endothelial Cells, July 2000-June 2002

Public Health Service, NHLBI R01, Principal Investigator, Plasmalogen metabolism by iPLA<sub>2</sub> in

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ischemic myocardium, December 2001-November 2005

Public Health Service, NIDDK R01, Co-Investigator, Novel PLA<sub>2</sub> in oxidant-induced renal cell oncosis, March 2002-February 2005

American Heart Association, Heartland Affiliate, Grant-In-Aid, Principal Investigator, Tryptase Stimulation of Human Coronary Artery Endothelial Cells and Production of Inflammatory Phospholipid Metabolites, January 2003-December 2004

Public Health Service, NIDDK R01, Principal Investigator, PLA<sub>2</sub> activation by mast cell tryptase in IC, September 2003-August 2008

### **Students:**

#### Graduate Students:

Maureen Meyer, 8/03 to present

Perna Rastogi, 11/03 to present

Suzanne Vinson 6/04 to present

Eric Knoll, graduate student in Biomedical Sciences, first year lab rotation, 2/01 to 3/01

Sarah Steer, graduate student in Biomedical Sciences, first year lab rotation, 3/01 to 5/01

Kristin Wildsmith, graduate student in Biomedical Sciences, first year lab rotation, 3/01 to 5/01

Suzanne Vinson, graduate student in Biomedical Sciences, first year lab rotation, 7/01 to 8/01

Laura Gorges, graduate student in Biomedical Sciences, first year lab rotation, 7/02 to 8/02

Maureen Meyer, graduate student in Biomedical Sciences, first year lab rotation, 9/02 to 10/02

Johnnie Moore, graduate student in Biomedical Sciences, first year lab rotation, 6/03 to 7/03

Perna Rastogi, graduate student in Biomedical Sciences, first year lab rotation, 9/03 to 11/03

Thesis committee member for Michelle Farberman, Pathology Department, Saint Louis University

Thesis committee member for Sarah Steer, Biochemistry Department, Saint Louis University

Thesis committee member for Jason Moran, Biochemistry Department, Saint Louis University

Thesis committee member for Kristin Wildsmith, Biochemistry Department, Saint Louis University

Thesis committee member for Maria Messner, Biochemistry Department, Saint Louis University

#### Medical Students:

Janelle M. Rohrback, second year medical student at Saint Louis University Medical School 1998

Hugh B. O'Neill, second year medical student at Saint Louis University Medical School 1999

Leo Hsu, post sophomore fellow, Department of Pathology, Saint Louis University Medical School 2001

Craig Portell, second year medical student at Saint Louis University, 2003

Drake Poeschl, second year medical student at Saint Louis University, 2005

### **Teaching:**

Teaching to graduate students at UAMS (1995-1997):

Molecular and Biochemical Pathobiology PATH 5043; 4 hours



Jane McHowat, Ph.D.  
Curriculum Vitae

April 2005

Teaching to first year graduate students in Biomedical Sciences program at SLU  
Special Topics BBSG 504

Teaching to Pathology graduate students at Saint Louis University:  
Pathobiology PT.G501; 14 hours  
Molecular Pathobiology PT.G502; 8 hours

Seminars/Journal Clubs; 4 hours each year

**Committees/Other Responsibilities:**

Member of the Graduate Student Curriculum Committee, Saint Louis University, 2000-present  
Member of the Research Space Review Committee, Saint Louis University, 2003-present  
Member of the Faculty Development Committee, Pathology Department, Saint Louis University  
Member of the Research Planning Committee, Saint Louis University, 2004-present  
Member of the MD/PhD Steering Committee, Saint Louis University, 2004-present  
Course Director for PT.G691 Molecular Pathobiology Journal Club and PT.G692 Pathology Research Colloquium  
Course Director for BBSG 504 Special Topics  
Graduate Student Association Research Day Judge 2001-present  
Interviewed prospective students for admittance to medical school at University of Arkansas for Medical Sciences  
Interviewed prospective students for admittance to graduate program in Biomedical Sciences at Saint Louis University  
Ad hoc grant reviewer for Department of Veterans' Affairs, Merit Review Applications  
Grant reviewer and committee member for the Great America Consortium 1A study section, American Heart Association, 2000  
Grant reviewer and committee member for Cardiovascular (Patho)physiology 3 study section, American Heart Association, 2002-2004  
Reviewed manuscripts for the Journal of Molecular and Cellular Cardiology, Circulation Research, Journal of Lipid Research and American Journal of Physiology  
Ad hoc grant reviewer for NIH Path A study section, June 2002