

CURRICULUM VITAE

SURNAME: PARKHOUSE

OTHER NAMES: Robert Michael Evans

NATIONALITY: British

MARITAL STATUS: Married

CHILDREN: Three

HOME ADDRESS AND TELEPHONE: 14 Kemplay Road, London NW3

0171 435 9930

ADDRESS FOR CORRESPONDENCE: Division of Immunology, Institute for Animal Health, Pirbright Laboratory, Ash Road, Pirbright, Surrey GU24 0NF

QUALIFICATIONS: 1958 BSc Zoology/Chemistry London University

1959 MSc Biochemistry London University

1960 Diploma Microbiology London University

1963 Ph.D Biochemistry London University

POSITIONS HELD: 1959-1963 Research Assistant, Postgraduate Medical School, London
1963-1966 Postdoctoral Fellow, Scripps Clinic and Research Foundation, La Jolla, California
1966-1967 Special Fellowship from National Institute of Health, Salk Institute, La Jolla, California
1967-1991 Member of the scientific staff, National Institute for Medical Research, Mill Hill, London (Special Appointment-equivalent to University Professor)
1989-1991 Director, Centro Nacional de Biotecnologia, Madrid, Spain
1991- 2000 Head of Immunology Department, Institute for Animal Health, Pirbright Laboratory

PRESENT POSITION: 2000 Group Leader Instituto Gulbenkian de Ciência, Oeiras, Portugal.

REFEREED PUBLICATIONS

GENERAL:

1. Gillespie, J.E. O'N., White, J.C., Ellis, M.J., Beaven, G.M., Gratzer, W.B., Shooter, E.M. and Parkhouse, R.M.E. (1959). A haemoglobin with unusual alkaline denaturation properties in a Turkish-Cypriot woman. *Nature*, **184**: 1876-1877.

IMMUNOLOGY:

2. Chapman, N., Parkhouse, R.M.E. and Dutton, R.W. (1964). Antigen stimulated proliferation in lymphoid and myeloid tissues from immunised rabbits. *Proc.Soc.Exp.Biol.Med.* **117**: 708-711.
3. Parkhouse, R.M.E. and Dutton, R.W. (1966). Inhibition of spleen cell DNA synthesis by autologous macrophages. *J.Immunol.* **97**: 663-669.
4. Knopf, P.M., Parkhouse, R.M.E. and Lennox, E.S. (1967). Biosynthetic units of an immunoglobulin heavy chain. *Proc. Nat. Acad. Sci. USA*, **58**: 2288-2295.
5. Lennox, E.S., Knopf, P.M., Munro, A.J. and Parkhouse, R.M.E. (1967). A search for biosynthetic subunits of light and heavy chains of immunoglobulins. *Cold Spring Harb. Quant.Biol.* **32**: 249-254.
6. Parkhouse, R.M.E. (1967). Antigen stimulated DNA and RNA synthesis in spleen cell suspensions from immunised rabbits. *Nature* **215**: 394-395.
7. Parkhouse, R.M.E. and Dutton, R.W. (1967). The effect of physical and chemical modifications on antigen in the secondary response *in vitro*. *Immunochemistry*, **4**: 431-439.
8. Parkhouse, R.M.E. and Askonas, B.A. (1969). Immunoglobulin M biosynthesis. Intracellular accumulation of 7S subunits. *Biochem. J.* **115**: 163-169.
9. Parkhouse, R.M.E., Askonas, B.A. and Dourmashkin, R.R. (1970). Electron microscopic studies of mouse immunoglobulin M; structure and reconstitution following reduction. *Immunology*, **18**: 575-584.
10. Askonas, B.A. and Parkhouse, R.M.E. (1971). Assembly of immunoglobulin M: blocked sulphhydryl groups of intracellular 7S subunits. *Biochem. J.* **123**: 629-634.

11. Dourmashkin, R.R., Virella, G. and Parkhouse, R.M.E. (1971). Electron microscopy of human and mouse myeloma serum IgA. *J.Molec.Biol.* **56**: 207-208.
12. Green, N.M., Dourmashkin, R.R. and Parkhouse, R.M.E. (1971). Electron microscopy of complexes between IgA (MOPC 315) and a bifunctional hapten. *J.Molec. Biol.* **56**: 203-206.
13. Parkhouse, R.M.E. (1971). Immunoglobulin A biosynthesis: intracellular accumulation of 7S subunits. *FEBS Lett.* **16**: 71-73.
14. Parkhouse, R.M.E. (1971). Immunoglobulin M biosynthesis; intermediates and excess light chain production in mouse myeloma MOPC 104E. *Biochem.J.* **123**: 635-641.
15. Parkhouse, R.M.E. and Melchers, F. (1971). Biosynthesis of the carbohydrate portion of immunoglobulin M. *Biochem.J.*, **125**: 235-240.
16. Parkhouse, R.M.E., Virella, G. and Dourmashkin, R.R. (1971). Structural characterisation of a monoclonal IgA protein. *Clin. Exp.Immunol.* **8**: 581-591.
17. Virella, G. and Parkhouse, R.M.E. (1971). Papain sensitivity of heavy chain sub-classes in normal human IgG and localisation of the antigenic determinants for the sub-classes. *Immunochemistry*, **8**: 243-250.
18. Virella, G and Parkhouse, R.M.E. (1971). Detection of monomeric IgM by acrylamide disc gel electrophoresis followed by agar gel immunodiffusion. *Clin.Chim.Acta*, **32**: 427-431.
19. Crumpton, M.J. and Parkhouse, R.M.E. (1972). Comparison of the effects of various detergents on antigen-antibody interaction. *FEBS Lett*, **22**: 210-212.
20. Parkhouse, R.M.E. (1972). Biosynthesis of J-chain in mouse IgA and IgM. *Nature, New Biol.*, **236**: 9-11.
21. Parkhouse, R.M.E. and Allison, A.C. (1972). Failure of cytochalasin or colchicine to inhibit secretion of immunoglobulins. *Nature, New Biol.* **235**: 220-222.
22. Parkhouse, R.M.E., Janossy, G. and Greaves, M.F. (1972). Selective stimulation of IgM synthesis in mouse B-lymphocytes by pokeweed mitogen. *Nature, New Biol.* **235**: 21-23.
23. Virella, G and Parkhouse, R.M.E. (1972). Determination of the molecular weight of human gamma-3 chains by polyacrylamide gel electrophoresis in the presence of sodium dodecyl sulphate. *Immunology*, **23**: 857-860.
24. Della Corte, E. and Parkhouse, R.M.E. (1973). Biosynthesis of immunoglobulin A (IgA). Secretion and addition of carbohydrate to monomer and polymer forms of a mouse myeloma

- protein. *Biochem.J.* **136**: 589-596.
25. Della Corte, E. and Parkhouse, R.M.E. (1973). Biosynthesis of immunoglobulin A (IgA) and immunoglobulin M (IgM). Requirement for J chain and a disulphide-exchanging enzyme for polymerisation. *Biochem.J.* **136**: 597-606.
 26. Parkhouse, R.M.E. (1973). Assembly and secretion of immunoglobulin M (IgM) by plasma cells and lymphocytes. *Transplantation Reviews*, **14**: 131-144.
 27. Parkhouse, R.M.E. and Della Corte, E. (1973). Biosynthesis of immunoglobulin A (IgA) and immunoglobulin M (IgM). Control of polymerisation by J chain. *Biochem.J.* **136**: 607-609.
 28. Virella, G., Parkhouse, R.M.E. (1973). Sensitivity to reduction of human immunoglobulin G of different subclasses. *Immunochemistry* **10**: 213-217.
 29. Abney, E.R. and Parkhouse, R.M.E. (1974). A candidate for immunoglobulin D present on murine B lymphocytes. *Nature* **252**: 600-602.
 30. Kaji, H and Parkhouse, R.M.E. (1974). Intracellular J chain in mouse plasmacytomas secreting IgA, IgM and IgG. *Nature*, **249**: 45-47.
 31. Parkhouse, R.M.E. (1974). Non-covalent association of IgM subunits produced by reduction and alkylation. *Immunology* **27**: 1063-1071.
 32. Ellis, A.E. and Parkhouse, R.M.E. (1975). Surface immunoglobulins on the lymphocytes of the skate *Raja naevus*. *Europ.J.Immunol.*, **5**: 726-728.
 33. Kaji, H. and Parkhouse, R.M.E. (1975). Control of J chain biosynthesis in relation to heavy and light chain synthesis, polymerisation and secretion. *J.Immunol.* **114**: 1218-1220.
 34. Abney, E.R., Howard, W. and Parkhouse, R.M.E. (1976). Location of nucleotide pyrophosphatase and alkaline phosphodiesterase activities on the lymphocyte surface membrane. *Biochem.J.* **159**: 293-299.
 35. Abney, E.R., Hunter, I.R. and Parkhouse, R.M.E. (1976). Preparation and characterisation of an antiserum to the mouse candidate for immunoglobulin D. *Nature* **259**: 404-406.
 36. Abney, E.R., Keeler, K.D., Parkhouse, R.M.E. and Willcox, H.N. (1976). Immunoglobulin M receptors on memory cells of immunoglobulin G antibody forming cell clones. *Europ.J.Immunol.* **6**: 443-450.
 37. Cooper, M.D., Kearney, J.F., Lawton, A.R., Abney, E.R., Parkhouse, R.M.E. Preud'homme, J-L. and Seligman, M. (1976). Generation of Ig class diversity in B cells: a discussion with emphasis on IgD development. *Annal.Inst.Pasteur* **127C**: 573-581.

38. Parkhouse, R.M.E., Abney, E.R., Bourgois, A. and Willcox, H.N.A. (1976). Functional and structural characterisation of immunoglobulin on mouse B-lymphocytes. *Cold Spring Harbor Symp. Quant.Biol.* **41**: 193-200.
39. Parkhouse, R.M.E., Hunter, I.R. and Abney, E.R. (1976). Heterogeneity of surface immunoglobulin on murine B lymphocytes. *Immunology*, **30**: 409-412.
40. Santana, V., Wedderburn, N., Abney, E.R. and Parkhouse, R.M.E. (1976). Identification of a high molecular weight protein on the surface of murine thymus and thymus dependent cells. *Europ.J.Immunol.* **6**: 217-222.
41. White, J.C., Adams, B.A., Lau, K.S., Horne, R.W. and Parkhouse, R.M.E. (1976). Cryoimmunoglobulin IgGK with microtubular ultra-structure associated with pyoderma gengrenosum. *J.Path.* **120**: 25-33.
42. Bourgois, A., Abney, E.R. and Parkhouse, R.M.E. (1977). Mouse immunoglobulin receptors on lymphocytes: identification of IgMs and IgD molecules by tryptic cleavage and postulated role for cell surface IgD. *Europ.J.Immunol.* **7**: 210-212.
43. Bourgois, A., Abney, E.R. and Parkhouse, R.M.E. (1977). Structure of mouse Fc receptor. *Eur. J. Immunol.* **7**: 691-695.
44. Kearney, J.F., Cooper, M.D., Klein, J., Abney, E.R., Parkhouse, R.M.E. and Lawton, A.R. (1977). Ontogeny of Ia and IgD bearing B lymphocytes in mice. *J.Exp.Med.* **146**: 297-301.
45. Parkhouse, R.M.E. and Cooper, M.D. (1977). A model for the differentiation of B lymphocytes with implications for the biological role of IgD. *Immunol.Rev.* **37**: 105-126.
46. Abney, E.R., Cooper, M.D., Kearney, J.F., Lawton, A.R. and Parkhouse, R.M.E. (1978). Sequential expression of immunoglobulin on developing mouse B lymphocytes: A systematic survey that suggests a model for the generation of immunoglobulin isotype diversity. *J.Immunol.* **120**: 2041-2049.
47. Dresser, D.W. and Parkhouse, R.M.E. (1978). The effect of the parental administration of a rabbit anti-mouse IgD serum on the immune response of mice to sheep erythrocytes. *Immunology*, **35**: 1027-1036.
48. Kincade, P.W., Paige, C.J., Parkhouse, R.M.E. and Lee, G. (1978). Characterisation of murine colony-forming B cells. I. Distribution, resistance to anti-immunoglobulin antibodies and expression of Ia antigens. *J.Immunol.* **120**: 1289-1296.
49. Brandon, D.B., Edwards, A.J. and Parkhouse, R.M.E. (1979). The response to lipolysaccharide of mouse spleen lymphocytes fractionated on the basis of surface immunoglobulin and complement receptor using fluorescent-activated cell sorting and rosetting techniques. *Immunol.* **36**: 865-873.

50. Parkhouse, R.M.E., Lifter, J. and Choi, Y.S. (1980). Chemical characterisation of the Fab and Fc fragments from surface immunoglobulin. *Nature (Lond)*, **284**: 280-281.
51. Chayen, A. and Parkhouse, R.M.E. (1982). Preparation and properties of a cytotoxic monoclonal anti-mouse Thy-1 antibody. *Journal of Immunological Methods*, **49**: 17-23.
52. Chayen, A. and Parkhouse, R.M.E. (1982). B cell subpopulations in the mouse: analysis with monoclonal antibodies NIM-R2 and NIM-R3. *European Journal of Immunology*, **12**: 725-732.
53. Clark, N.W.T., Parkhouse, R.M.E. and Simmonds, R.G. (1982). Positive and negative selection of cells by hapten-modified antibodies. *Journal of Immunological Methods*, **51**: 167-170.
54. Marshall-Clarke, S., Chayen, A. and Parkhouse, R.M.E. (1982). Monoclonal antibody NIM-R2 shows differential reactivity with virgin and memory B-cells. *European Journal of Immunology*, **12**: 733-738.
55. Parkhouse, R.M.E., Chayen, A. and Marshall-Clarke, S. (1982). Functional aspects of immunoglobulin-D (IGD). *Annals of the New York Academy of Sciences* **399**: 340-350.
56. Dresser, D.W., Parkhouse, R.M.E. and Popham, A.M. (1983). Pretreatment of mice with anti-IgD serum does not result in suppression of immune responsiveness induced by TNP-AECM-Ficoll or lipopolysaccharide. *Immunology*, **48**: 497-501.
57. Jungary, M., Clark, N.W.T. and Parkhouse, R.M.E. (1983). A major change in surface antigens during the maturation of newborn larvae of *Trinchinella spiralis*. *Mol.Biolchem.Parasitol.* **7**: 101-109.
58. Marshall-Clarke, S., Keeler, K.D. and Parkhouse, R.M.E. (1983). The expression of surface IgD on B cells responsive to thymus-independent and thymus-dependent antigens and its requirement for B-cell triggering. *Immunology*, **48**: 393-400.
59. Parkhouse, R.M.E., Andrew, E.M., Chayen, A. and Clarke, S.M. (1983). Heterogeneity of B-cells. *Annals of the New York Academy of Sciences* **409**: 215-229.
60. Andrew, E.M. and Parkhouse, R.M.E. (1984). Induction of Ia-antigen expression in murine kidney. *Journal of Pathology*, **142**: 5A.
61. Andrew, E.M., Marshall-Clarke, S. and Parkhouse, R.M.E. (1984). Association of cell function with quantitative variation in cell surface markers. *Annales d'Immunologie de l'Institut Pasteur*, **135D**: 204-210.

62. Enriquez-Rincon, F., Andrew, E.M., Parkhouse, R.M.E. and Klaus, G.G.B. (1984). Suppression of follicular trapping of antigen-antibody complexes in mice treated with anti-IgM or anti IgD antibodies from birth. *Immunology*, **53**: 713-719.
63. Andrew, E.M., Mackenzie, N. and Parkhouse, R.M.E. (1985). Functional differences associated with quantitative distribution of membrane immunoglobulin Fc receptors and Ia on mouse B-cells. *Immunology*, **54**: 233-240.

64. Klaus, G.G.B., Bijsterbosch, M.K. and Parkhouse, R.M.E. (1985). Activation and proliferation signals in mouse B- cells v. a comparison of effects of intact (IgG) and F(ab)₂ anti- μ and anti-d antibodies. *Immunology*, **54**: 677-683.
65. Andrew, E.M. and Parkhouse, R.M.E. (1986). Immune induction of Ia antigens in activated T-cells and in kidney epithelial cells in mice. *Immunology*, **58**: 603-606.
66. Greenwood, M.R. and Parkhouse, R.M.E. (1986). Monoclonal antibody NIM-R3 substitutes for B-cell growth factor. *Immunology*, **59**: 7-14.
67. Marshall-Clarke, S., Harrison, J. and Parkhouse, R.M.E. (1986). Dissociation of murine B-cell proliferation and differentiation by monoclonal antibody, NIM R2. *Immunology*, **57**: 189-194.
68. Paver, J.L., Freedman, R.B. and Parkhouse, R.M.E. (1988). Induction of protein disulfide-isomerase during lymphocyte activation and maturation. *Biochemical Society Transactions*, **16**: 56.
69. Parkhouse, R.M.E. (1989). Three B cell surface molecules associating with membrane immunoglobulin. *Cold Spring Harbor Symposium on Quantitative Biology*. **54**: 741-744.
70. Paver, J.L., Freeman, R.B. and Parkhouse, R.M.E. (1989). Induction of expression of protein disulphide-isomerase during lymphocyte maturation stimulated by bacterial lipopolysaccharide. *FEBS Letters*, **242**: 357-362.
71. Parkhouse, R.M.E. (1990). Three B cell surface molecules associating with membrane immunoglobulin. *Immunology*, **69**: 298-302.
72. Ales-Martinez, J.E., Cuende, E., Martinez, A.C., Parkhouse, R.M.E., Pezzi, L. & Scott, D.W. (1991) Signalling in B cells. *Immunol. Today* **12**: 201-205.
73. Parkhouse, R.M.E., Preece, G., Sutton, R., Cordell, J.L., Mason, D.Y. (1992) Relative expression of surface IgM, IgD and the Ig associating α (mb-1) and β (B-29) polypeptide chains. *Immunology*. **76**: 535-540.
74. Randall, T.D., Parkhouse, R.M.E. and Corley, R.B. (1992) J chain synthesis and secretion of hexameric IgM is differentially regulated by lipopolysaccharide and interleukin 5. *Proc.Nat.Acad.Sci.USA*, **89**: 962-966.
75. Torres, R.M., Law, C-L., Santos-Argumedo, L., Kirkham, P.A., Grabstein, K., Parkhouse, R.M.E. and Clark, E.A. (1992) Identification and characterization of the murine homologue of CD22, A B lymphocyte-restricted adhesion molecule. *J. Immunol.* **149**: 2641-2649.

76. Harada, N., Santos-Argumedo, L., Chang, R., Grimaldi, J.C., Lund, F.E., Brannan, C.I., Copeland, N.G., Jenkins, N.A., Heath, A.W., Parkhouse, R.M.E. and Howard, M. (1993) Expression cloning of a cDNA encoding a novel murine B cell activation marker: homology to human CD38. *J.Immunol* **151**: 3111-3118.
77. Howard, M., Grimaldi, J.C., Bazan, J.F., Lund, F.E., Santos-Argumedo, L., Parkhouse, R.M.E., Walseth, T.F., Lee, H.C. (1993) Formation and hydrolysis of cyclic ADP-ribose is catalyzed by lymphocyte antigen CD38. *Science* **262**: 1056-1059.
78. Law, C.L., Torres, R.M., Sundberg, H.A., Parkhouse, R.M.E., Brannan, C.I., Copeland, N.G., Jenkins, N.A. and Clark, E.A. (1993) Organisation of the murine Cd22 locus¹ mapping to chromosome 7 and characterisation of two alleles. *J.Immunol.* **151**: 175-187.
79. Mukwedeya, D.T., Takamatsu, H., Parkhouse, R.M.E. (1993) Identification of bovine B cell reactive and B cell specific monoclonal antibodies. *Veterinary Immunology and Immunopathology* **39**: 177-186.
80. Santos-Argumedo, L., Teixeira, C., Preece, G., Kirkham, P.A. and Parkhouse, R.M.E. (1993) A molecule on the surface of murine B lymphocytes mediating activation and protection from apoptosis via calcium channels. *J.Immunol.* **151**: 3119-3130.
81. Brewer, J.W., Randall, T.D., Parkhouse, R.M.E. and Corley, R.B. (1994). Mechanism and subcellular localization of secretory IgM polymer assembly. *J.Biol.Chem.* **269**: 17338-17348.
82. Brewer, J.W., Randall, T.D., Parkhouse, R.M.E., Corley, R.B. (1994) IgM Hexamers ? *Immunology Today* **15**: 165-168.
83. Denham, S., Shimizu, M., Bianchi, A.T.J., Zwart, R.J., Carr, M.M. and Parkhouse, R.M.E. (1994). Monoclonal antibodies recognising differentiation antigens on porcine B-cells. *Veterinary Immunology and Immunopathology* **43**: 259-267.
84. Kirkham, P.A., Santos-Argumedo, L., Harnett, M.M. and Parkhouse, R.M.E. (1994). Murine B cell activation via CD38 and protein tyrosine phosphorylation. *Immunology* **83**: 513-516.
85. Bean, A.G.D., Godfrey, D.I., Ferlin, W.G., Santos Argumedo, L., Parkhouse, R.M.E., Howard, M.C. and Zlotnik, A. (1995). CD38 expression on mouse T-cells - CD38 defines functionally distinct subsets of alpha-beta-TCR (+) CD4 (-) thymocytes. *International Immunology* **7**: 213-221.
86. Lund, F., Solvason, N., Grimaldi, C., Parkhouse, R.M.E. & Howard, M. (1995) Murine CD38: An immunoregulatory ectoenzyme. *Immunology Today* **16**: 469-473.

87. Lund, F.E., Solvason, N.W., Cooke, M.P., Heath, A.W., Grimaldi, J.C., Parkhouse, R.M.E., Goodnow, C.C. & Howard, M.C. (1995) Signalling through murine CD38 is impaired in antigen receptor unresponsive B cells. *European Journal of Immunology* **25**: 1338-1345.
88. Santos-Argumedo, L., Lund, F.E., Heath, A.W., Solvason, N., Wu, W.W., Grimaldi, J.C., Parkhouse, R.M.E. & Howard, M. (1995) CD38 unresponsiveness of xid B cells implicates Bruton's tyrosine kinase (btk) in CD38 induced signal transduction. *International Immunology* **7**: 163-170.
89. Zheng, Z., Katoh, S., He, Q., Oritani, K., Miyake, K., Lesley, J., Hyman, R., Hamik, A., Parkhouse, R.M.E., Farr, A.G. and Kincade, P.W. (1995) Monoclonal antibodies to CD44 and their influence on hyaluronan recognition. *Journal of Cell Biology*. **130**: 485-495.
90. Kirkham P.A., Takamatsu H., Yang H. & Parkhouse R.M.E. (1996). Porcine CD3e: Its characterisation, expression and involvement in activation of porcine T-lymphocytes. *Immunology*. **87**: 616-623.
91. Mukwedeya, D.T., Takamatsu, H., Denyer, M.S. and Parkhouse, R.M.E. (1996). Analysis of bovine B-cell reactive monoclonal antibodies. *Veterinary Immunology and Immunopathology* **52**: 285-294.
92. Yang, H. and Parkhouse, R.M.E. (1996) Phenotypic classification of porcine lymphocyte subpopulations in blood and lymphoid tissues. *Immunology* **89**: 76-83.
93. Yang, H., Oura, C.A.L., Kirkham, P.A. and Parkhouse, R.M.E. (1996). Characterisation of monoclonal anti-porcine CD3 antibodies and preliminary characterisation of porcine T lymphocytes. *Immunology* **88**: 577-585.
94. Kirkham, P.A., Takamatsu, H. and Parkhouse, R.M.E. (1997). Growth arrest of gamma/delta T-cells induced via WC1 correlates with multiple tyrosine phosphatase activation and dephosphorylation of Map kinase ERK2. *Eur. J.Immunol.* **27**: 717-725.
95. Santos-Argumedo, L., Kincade, P.W., Partida-Sanchez, S. and Parkhouse, R.M.E. (1997). CD44-stimulated dendrite formation ("spreading") in activated B cells. *Immunology* **90**: 147-153.
96. Takamatsu, H., Kirkham, P.A. and Parkhouse, R.M.E. (1997). A γ T cell specific surface receptor (WC1) signalling G0/G1 cell cycle arrest. *Eur.J.Immunol.* **27**: 105-110.
97. Whittall, J.T.D. and Parkhouse, R.M.E. (1997). Monoclonal antibodies defining differentiation antigens of swine lymphoid and myeloid cells. *Veterinary Immunology and Immunopathology* **60**: 149-160.
98. Yang, H. and Parkhouse, R.M.E. (1997). Differential expression of CD8 epitopes amongst

- porcine CD8 positive functional lymphocyte subsets. *Immunology* **92**: 45-52.
99. Denham, S., Zwart, R.J., Whittall, J.T.D., Pampusch, M., Corteyn, A.H., Bianchi, A.T.J., Murtaugh, M.P., Parkhouse, R.M.E., Tlaskalova, H., Sinkora, J., Sinkora, M. and Rehakova, Z. (1998). Monoclonal antibodies putatively identifying porcine B-cells. *Vet. Immunol. & Immunopathol.* **60**:317-328.
 100. Inumaru, S., Kokuho, T., Denham, S., Denyer, M.S., Momotani, E., Kitamura, S., Corteyn, A., Brookes, S., Parkhouse, R.M.E. and Takamatsu, H. (1998). Expression of biologically active recombinant porcine GM-CSF by baculovirus gene expression system. *Immunology and Cell Biology*, **76**:195-201.
 101. Kirkham, P.A., Lam, E.W-F., Takamatsu, H.H. and Parkhouse, R.M.E. (1998). The transcription factor E2F controls the reversible γ D T-cell growth arrest mediated through WC1. *J.Immunol.* **161**:1630-1636.
 102. Pescovitz, M.D., Book, B.K., Aasted, B., Dominguez, J., Ezquerria, A., Trebichavsky, I., Novikov, B., Valpotic, I., Nielsen, J., Arn, S., Sachs, D.H., Lunney, J.K., Boyd, P.C., Walker, J., Lee, R., Lackovic, G., Kirkham, P. and Parkhouse, R.M.E. (1998). Analyses of monoclonal antibodies reacting with porcine CD3: results from the Second International Swine CD Workshop. *Veterinary Immunology and Immunopathology* **60**: 261-268.
 103. Saalmüller, A. *et al* (1998). Overview of the Second International Workshop to define swine cluster of differentiation (CD) antigens. *Vet, Immunol. & Immunopathol.* **60**: 207-228.
 104. Santiago, M.L., Mary, C., Parzy, D., Jacquet, C., Montagutelli, X., Parkhouse, R.M.E., Lemoine, R., Izui, S. and Reininger, L. (1998). Linkage of a major quantitative trait locus to *Yaa* gene-induced lupus-like nephritis in (NZW \times C57BL/6)F1 mice. *Eur.J.Immunol.* **28**: 4257-4267.
 105. Sinkora, M., Sinkora, J., Rehakova, Z., Splichal, I., Yang, H., Parkhouse, R.M.E. and Trebichavsky, I. (1998). Prenatal ontogeny of lymphocyte subpopulations in pigs. *Immunology* **95**: 595-603.
 106. Tutt, A.L., Illidge, T., Honeychurch, J., McBride, H., Penfold, C., Fearon, D., Parkhouse, R.M.E., Klaus, G.G.B. and Glennie, M.J. (1998). Monoclonal antibody therapy of B-cell lymphoma: signalling activity on tumour cells appears more important than recruitment of effectors. *J.Immunol.* **161**: 3176-3185.
 107. Yang, H. and Parkhouse, R.M.E. (1998). Differential activation requirements associated with stimulation of T cells via different epitopes of CD3. *Immunology* **93**: 26-32.
 108. Andersen, J.K., Takamatsu, H., Oura, C.A.L., Brookes, S.M., Pullen, L. and Parkhouse, R.M.E. (1999). Systematic characterisation of porcine ileal Peyer's patch. I: Apoptosis sensitive immature B-cells are the predominant cell type. *Immunology* **98**: 612-621.

109. Andersen, J.K., Takamatsu, H., Pullen, L. and Parkhouse, R.M.E. (1999). Systematic characterisation of porcine ileal Peyer's patch. II: A role for CD154 on T-cells in the positive selection of immature porcine ileal Peyer's patch B-cells. *Immunology* **98**: 622-629.
110. Bofill, M. and Parkhouse, R.M.E. (1999). The increased CD38 expressed by lymphocytes infected with HIV-1 is a fully active NADase. *European Journal of Immunology* **29**: 3583-3587.
111. Lajaunias, F., Ibnou-Zekri, N., Jimack, L.F., Chicheportiche, Y., Parkhouse, R.M.E., Mary, C., Reininger, L., Brighthouse, G. and Izui, S. (1999). Polymorphisms in the CD22 gene of inbred mouse strains. *Immunogenetics* (In press)
112. Takamatsu, H., Andersen, J.K., Denyer, M.S. & Parkhouse, R.M.E. (1999). Establishment of Long Term CD154 Dependent Porcine B Cell Cultures. *Immunology* **97**: 211-218.
113. Mary, C., Laporte, C., Parzy, D., Santiago, M.L., Stefani, F., Lagaunias, F., Parkhouse, R.M.E., O'Keefe, T.L., Neuberger, M.S., Izui, S. & Reininger, L. (2000). Dysregulated expression of the Cd22 gene as a result of a short interspersed nucleotide element insertion in Cd22^a lupus-prone mice. *The Journal of Immunology* **165**: 2987-2996.
114. Jenson, J.S., Childerstone, A., Takamatsu, H-H., Dixon, L.K., Parkhouse, R.M.E. (2000). The cellular immune recognition of proteins expressed by an African swine fever virus random genomic library. *Journal of Immunological Methods* **242**: 33-42.
115. Kirkham, P.A., Takamatsu, H-H., Lam, E.W-F. & Parkhouse, R.M.E. (2000). Ligation of the WC1 receptor induces ?? T-growth arrest through fumonisin B1 sensitive increases in cellular ceramide. *J. Immunol.* **165**: 3564-3570.
116. Marshall-Clarke, S., Tasker, L. & Parkhouse, R.M.E. (2000). Immature B lymphocytes from adult bone marrow exhibit a selective defect in induced hyperexpression of major histocompatibility complex class II and fail to show B7.2 induction. *Immunology.* **100**: 141-151.
117. Donis-Hernandez, F.R., Parkhouse, R.M.E. & Santos-Argumedo, L. (2001). Ontogeny, distribution and function of CD38-expressing B lymphocytes in mice. *Eur.J.Immunol.* **31**: 1261-1267.
118. Partida-Sanchez, S., Garibay-Escobar, A., Frixione, E., Parkhouse, R.M.E., Santos-Argumedo, L. (2000). CD45R, CD44 and MHC class II are signaling molecules for the cytoskeleton-dependent induction of dendrites and motility in activated B cells. *Eur.J.Immunol.* **30**: 2722-2728.

119. Lajaunias, F., Nitschke, L., Moll, T., Martínez-Soria, E., Semac, I., Chicheportiche, Y., Parkhouse, R.M.E., Izui, S. Differentially Regulated Expression and Function of CD22 in Activated B-1 and B-2 Lymphocytes. *J. Immunol* (in the press)

PARASITOLOGY:

1. Philipp, M., Parkhouse, R.M.E. & Ogilvie, B.M. (1980). Changing proteins on the surface of a parasitic nematode. *Nature*, **287**: 538-540
2. Parkhouse, R.M.E., Philipp, M. and Ogilvie, B.M. (1981). Characterisation of surface antigens of *Trichinella spiralis* infective larvae. *Parasite Immunol.* **3**: 339-352.
3. Philipp, M., Taylor, P.M., Parkhouse, R.M.E. and Ogilvie, B.M. (1981). Immune response to stage-specific surface antigens of the parasitic nematode *Trichinella spiralis*. *Journal of Experimental Medicine*, **154**: 210-215.
4. Clark, N.W.T., Philipp, M. and Parkhouse, R.M.E. (1982). Non-covalent interactions result in aggregation of surface antigens of the parasitic nematode *T. spiralis*. *Biochemical Journal*, **206**: 27-32.
5. Parkhouse, R.M.E. and Clark, N.W.T. (1983). Stage specific secreted and somatic antigens of *Trichinella spiralis*. *Mol. Biochem. Parasitol.* **9**: 319-327.
6. McLaren, D.J., Parkhouse, R.M.E., Philipp, M., Abney, E.R., Gomez-Priego, A. and Beltran, F. (1984). Comparative surface ultrastructure of adult *Onchocerca volvulus* recovered from human nodules by dissection or collagenase digestion. *Zeitschrift fur Parasitenkunde*, **70**: 381-384.
7. Ortega-Peirres, G., Mackenzie, C.D. and Parkhouse, R.M.E. (1984). Protection against *Trichinella spiralis* induced by monoclonal antibody that promotes killing of newborn larvae by granulocytes. *Parasite Immunology*, **6**: 275-284.
8. Ortega-Pierres, G., Chayen, A., Clark, N.W.T. and Parkhouse, R.M.E. (1984). The occurrence of antibodies to hidden and exposed determinants of surface antigens of *Trichinella spiralis*. *Parasitology*, **88**: 359-369.
9. Parkhouse, R.M.E. and Ortega-Pierres, G. (1984). Stage specific antigens of *Trichinella spiralis*. *Parasitology*, **88**: 623-630.
10. Philipp, M., Gomez-Priego, A., Parkhouse, R.M.E., Davies, M.W., Clark, N.W.T., Ogilvie, B.M. and Beltran-Hernandez, F. (1984). Identification of an antigen of *Onchocerca volvulus* of possible diagnostic use. *Parasitology*, **89**: 295-309.
11. Philipp, M., Worms, M.J., McLaren, D.J., Ogilvie, B.M., Parkhouse, R.M.E. and Taylor, P.M. (1984). Surface proteins of a filarial nematode: a major soluble antigen and a host component on the cuticle of *Litomosoides carinii*. *Parasite Immunology*, **6**: 63-82.
12. Chambers, A.E., Almond, N.M., Simpson, A.J.G. and Parkhouse, R.M.E. (1985).

- Identification of *Trichinella* variants by DNA analysis. Transactions of the Royal Society of Tropical Medicine and Hygiene, **79**: 728.
13. Parkhouse, R.M.E. and Almond, N.M. (1985). Stage specific antigens of *Trichinella spiralis*. Biochemical Society Transactions **13**: 426-428.
 14. Parkhouse, R.M.E., Bofill, M., Gomez-Priego, A. and Janossy, G. (1985). Human macrophages and T-lymphocyte subsets infiltrating nodules of *Onchocerca volvulus*. Clinical and Experimental Immunology, **62**: 13-18.
 15. Parkhouse, R.M.E., Clark, N.W.T., Maizels, R.M. and Denham, D.A. (1985). *Brugia pahangi* - Labelling of secreted antigens with ³⁵S- methionine *in vitro*. Parasite Immunology **7**: 665-668.
 16. Almond, N.M., McLaren, D.J. and Parkhouse, R.M.E. (1986). A comparison of the surface and secretions of *T.pseudospiralis* and *T.spiralis*. Parasitology, **93**: 163-176.
 17. Almond, N.M. and Parkhouse, R.M.E. (1986). Immunoglobulin class specific responses to biochemically-defined antigens of *Trichinella spiralis*. Parasite Immunology, **8**: 391-406.
 18. Almond, N.M. and Parkhouse, R.M.E. (1986). The Ig class distribution of anti-phosphoryl choline responses in mice infected with parasitic nematodes. Immunology, **59**: 633-635.
 19. Almond, N.M., Parkhouse, R.M.E., Chapa Ruiz, M.R. and Garcia Ortigoza, E. (1986). The response of humans to surface and secreted antigens of *Trichinella spiralis*. Tropical Medicine and Parasitology, **37**: 381-384.
 20. Cabrera, Z. and Parkhouse, R.M.E. (1986). Identification of antigens of *Onchocerca volvulus* and *Onchocerca gibsoni* for diagnostic use. Molecular and Biochemical Parasitology, **20**: 225-231.
 21. Cabrera, Z., Cooper, D.M. and Parkhouse, R.M.E. (1986). Differential recognition patterns of human immunoglobulin classes to antigens of *Onchocerca gibsoni*. Trop.Med.Parasit. **37**: 113-116.
 22. Chambers, A.E., Almond, N.M., Knight, M., Simpson, A.J.G. and Parkhouse, R.M.E. (1986). Repetitive DNA as a tool for the identification and comparison of nematode variants: application to *Trichinella* isolates. Molecular and Biochemical Parasitology, **21**: 113-120.
 23. Gibbens, J.C., Harrison, L.J.S. and Parkhouse, R.M.E. (1986). Immunoglobulin class responses to *Taenia taeniaeformis* in susceptible and resistant mice. Parasite Immunol. **8**: 491-502.
 24. Harnett, W., Meghji, M., Worms, M.J. and Parkhouse, R.M.E. (1986). Quantitative and

- qualitative changes in production of excretions/secretions by *Litomosoides carinii* during development in the jird (*Meriones unguiculatus*). *Parasitology*, **93**: 317-331.
25. Harrison, L.J.S. and Parkhouse, R.M.E. (1986). Passive protection against *Taenia saginata* infection in cattle by a mouse monoclonal antibody reactive with the surface of the invasive oncosphere. *Parasite Immunology*, **8**: 319-332.
 26. Harrison, L.J.S., Sullivan, K. and Parkhouse, R.M.E. (1986). Ultrastructure of eggs and oncospheres of *Taenia saginata*. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, **80**: 983-984.
 27. Ortega-Pierres, M.G., Clark, N.W.T. and Parkhouse, R.M.E. (1986). Regional specialisation of the surface of a parasitic nematode. *Parasite Immunology*, **8**: 613-617.
 28. Almond, N.M., Worms, M.J., Harnett, W. and Parkhouse, R.M.E. (1987). Variations in specific humoral immune responses of different mouse strains to microfilariae of *Dipetalonema viteae*. *Parasitology*, **95**: 559-568.
 29. Almond, N.M. and Parkhouse, R.M.E. (1987). *Trichinella spiralis*: B-cell suppression does not exacerbate disease in mice. *Journal of Parasitology*, **73**: 848-850.
 30. Cabrera, Z. and Parkhouse, R.M.E. (1987). Isolation of an antigenic fraction for diagnosis of onchocerciasis. *Parasite Immunology*, **9**: 39-48.
 31. Cabrera, Z. and Parkhouse, R.M.E., Pabon, R. and Yarzabal, L. (1987). A specific *Onchocerca* antigen. *Tropical Medicine and Parasitology*, **38**: 62.
 32. McLaren, D.J., Ortega-Pierres, G. and Parkhouse, R.M.E. (1987). *Trichinella spiralis*: immunocytochemical localisation of surface and intracellular antigens using monoclonal antibody probes. *Parasitology*, **94**: 101-114.
 33. McManus, D.P., McLaren, D.J., Clark, N.W.T. and Parkhouse, R.M.E. (1987). Radioniodinated proteins on the protoscoleces of horse and sheep strains of the hydatid organism *Echinococcus granulosus*. *J. Helminthol*, **61**: 47-52.
 34. Ortega-Pierres, M.G., Almond, N.M. and Parkhouse, R.M.E. (1987). Applications of biochemically defined antigens of *Trichinella spiralis* in host immunity, protection and diagnosis. *Wiadomosci Parazytologiczne*, **33**: 423-452.
 35. Parkhouse, R.M.E., Almond, N.A., Cabrera, Z. and Harnett, W. (1987). Nematode antigens in protection, diagnosis and pathology. *Veterinary Immunology and Immunopathology*, **17**: 313-324.
 36. Parkhouse, R.M.E. and Harrison, L.J.S. (1987). Cyst fluid and surface associated glycoprotein

- antigens of *Taenia* species metacestodes. *Parasite Immunol.* **9**: 263-268.
37. Almond, N.M. and Parkhouse, R.M.E. (1988). The importance of antibody class in helminth infections. *Progress in Vaccinology*. Edited by G.P.Talwar. Springer-Verlag, pp. 259-274.
 38. Cabrera, Z., Parkhouse, R.M.E., Forsyth, K., Gomez Priego, A., Pabon, R. and Yarzabal, L. (1989). Specific detection of human antibodies to *Onchocerca volvulus*. *Trop.Med.Parasit.* **40**: 454-459.
 39. Correa, D., Sandoval, M.A., Harrison L.J.S., Parkhouse, R.M.E., Plancarte, A., Meza-Lucas, A. and Flisser, A. (1989). Human neurocysticercosis: comparison of enzyme immunoassay capture techniques based on monoclonal and polyclonal antibodies for the detection of parasite products in cerebrospinal fluid. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, **83**: 814-816.
 40. Harnett, W., Chambers, A.E., Renz, A. and Parkhouse, R.M.E. (1989). An oligonucleotide probe specific for *Onchocerca volvulus*. *Mol.Biochem.Parasit.* **35**: 119-125.
 41. Harnett, W., Grainger, M., Worms, M.J. and Parkhouse, R.M.E. (1989). Evaluation of the potential of excretions-secretions (E-S) of *Litomosoides carinii* to substitute for human filarial E-S. *Parasitology Research*, **76**: 39-44.
 42. Harnett, W., Worms, M.J., Kapil, A., Grainger, M. and Parkhouse, R.M.E. (1989). Origin, kinetics of circulation and fate of the major excretory-secretory product of *Acanthocheilonema viteae*. *Parasitology*, **99**: 229-239.
 43. Harrison, L.J.S., Joshua, G.W.P., Wright, S.H. and Parkhouse, R.M.E. (1989). Specific detection of circulating surface/secreted glycoproteins of viable cysticerci in *Taenia saginata* cysticercosis. *Parasite Immunology*, **11**: 351-370.
 44. Ortega-Pierres, G., Muniz, E., Vazquez, R.C. and Parkhouse, R.M.E. (1989). Protection against *Trinchinella spiralis* induced by purified stage-specific surface antigens of infective larvae. *Parasitology Res.* **75**: 563-567.
 45. Parkhouse, R.M.E. and Harrison, L.J.S. (1989). Antigens of parasitic helminths in diagnosis, protection and pathology. *Parasitology*, **99**: S5-S19.
 46. Premaratne, U.N., Parkhouse, R.M.E. and Denham, D.A. (1989). Microfilariae of *Brugia pahangi* in the blood of cats have variable levels of feline IgG on their sheaths. *Journal of Parasitology* **75**: 320-322.
 47. Robinson, M.P., Delgado, J. and Parkhouse, R.M.E. (1989). Characterisation of stage-specific cuticular proteins of *Meloidogyne incognita* by radio-iodination. *Physiological and Molecular Plant Pathology*, **35**: 135-140.

48. Garate, T., Harnett, W. and Parkhouse, R.M.E. (1990). Cloning of a species-specific DNA probe from *Onchocerca gibsoni*. *International J.for Parasitology*, **20**: 31-35.

49. Garate, T., Conraths, F.J., Harnett, W., Buttner, D.W. and Parkhouse, R.M.E. (1990). Cloning of specific diagnostic antigens of *Onchocerca volvulus*. *Trop.Med.Parasit.* **41**: 245-250.
50. Garate, T., Kliks, M.M., Cabrera, Z. and Parkhouse, R.M.E. (1990). Specific and cross-reacting antibodies in human responses to *Onchocerca volvulus* and *Dracunculus medinensis* infections. *Am.J.Trop.Med.Hyg.* **42**: 140-147.
51. Harnett, W., Worms, M.J., Grainger, M., Pyke, S.D.M. and Parkhouse, R.M.E. (1990). Association between circulating antigen and parasite load in a model filarial system, *Acanthocheilonema vitear* in jirds. *Parasitology*, **101**: 435-444.
52. Harrison, L.J.S., Delgado, J. and Parkhouse, R.M.E. (1990). Differential diagnosis of *Taenia saginata* and *Taenia solium* with DNA probes. *Parasitology*, **100**: 459-461.
53. Chacon, M.R., Parkhouse, R.M.E., Robinson, M.P., Burrows, P.R., Garate, T. (1991) Species-specific oligonucleotide probe for the detection of *Meloidogyne incognita*. *Parasitology*, **103**: 315-319.
54. Chacon, M.R., Parkhouse, R.M.E., Robinson, M.P., Burrows, P.R., Garate, T. (1991) Species-specific *Meloidogyne incognita* diagnosis by oligonucleotide DNA probes. *SON Newsletter*, **3**: March.
55. Conraths, F.J., Worms, M.J., Preece, G., Harnett, W. and Parkhouse, R.M.E. (1991) Studies on a 14 kilodalton surface protein of *Onchocerca* microfilariae. *Mol. Biochem. Parasitol*, **46**: 103-112.
56. Garate, T., Albarran, E., Bolas-Fernandez, F., Martinez-Fernandez, A.R., Parkhouse, R.M.E. (1991) DNA polymorphism within Spanish *Trichinella* isolates. *Parasitology Research*, **77**: 602-605.
57. Garate, T., Cabrera, Z., Copeman, D.B., Harnett, W., McLaren, D.J., Patterson, M. and Parkhouse, R.M.E. (1991) Surface antigens of male worms and microfilariae of *Onchocerca gibsoni*. *Int.J.Parasit.* **21**: 37-45.
58. Garate, T., Chacon, M.R., Parkhouse, R.M.E., Robinson, M.P. (1991) Characterisation of species and races of root-knot nematode (*Meloidogyne* spp.) by DNA restriction enzyme analysis. *Journal of Nematology*, **23**: 414-420.
59. Bolas-Fernandez, F., Albarran, E., Garate, T., Parkhouse, R.M.E., Martinez-Fernandez, A.R. (1992) A longitudinal study of porcine serological responses to experimental infections with T1 and T3 Spanish *Trichinella* isolates. *Journal of Helminthology*. **66**: 231-237.
60. Conraths, F.J., Harnett, W., Worms, M.J. and Parkhouse, R.M.E. (1992). Immunological

- cross reaction between an *Onchocerca* paramyosin-like molecule and a microfilarial surface antigen. *Trop. Med. Parasitol.* **43**: 135-138.
61. Chacón, M.R., Parkhouse, R.M.E., Burrows, P., Garate, T. (1993) The use of a digoxigenin-labelled synthetic DNA oligonucleotide for the rapid and sensitive identification of *Meloidogyne incognita*. *Fundam.appl.Nematol*, **16**: 495-499.
 62. Chacón, M.R., Rodríguez, E., Parkhouse, R.M.E., Burrows, P.R., Gárate, T. (1994) Differentiation of parasitic nematodes using random amplified polymorphic DNA. *Journal of Helminthology.* **68**: 109-113.
 63. Harnett, W., Patterson, M., Copeman, D.B. and Parkhouse, R.M.E. (1994). Biosynthetic radiolabelling of excretions/secretions of adult male *onchocerca-gibsoni*. *International Journal for Parasitology* **24**: 543-550.
 64. Chacón, M.R., Parkhouse, R.M.E., Burrows, P.R. Gárate, T. (1995) The use of heterologous probes to distinguish between *Meloidogyne incognita* races. *Nematologica* **41**:251-257.
 65. Benitez, L., Garate, T., Harrison, L.J.S., Kirkham, P., Brookes, S.M. & Parkhouse, R.M.E. (1996). Cloning and sequencing of the gene encoding the principal 18kDa secreted antigen of activated oncospheres of *Taenia saginata*. *Mol. Biochem. Parasitol.* **78**: 265-268.
 66. Benitez, L., Harrison, L.J.S., Parkhouse, R.M.E. and Garate, T. (1996). Sequence and immunogenicity of *Taenia saginata* ferritin. *Mol. Biochem. Parasitol.* **82**: 113-116
 67. Garate T, Conraths F.J., Harnett W., Büttner D.W. & Parkhouse R.M.E. (1996). Identification of *Onchocerca volvulus* collagen as an antigen mainly recognised by antibodies in chronic hyper-reactive oncho-dermatitis (Sowda). *Amer.J.Trop. Med.Hyg.* **54**: 490-497.
 68. Murdoch, M.E., Abiose, A., Garate, T., Hay, R.J., Jones, B.R., Maizels, R.M. and Parkhouse, R.M.E. (1996). Human Onchocerciasis in Nigeria: Isotypic responses and antigen recognition in individuals with defined cutaneous pathology. *Amer.J.Trop.Med.Hyg.* **54**: 600-612.
 69. Dent, L.A., Daly, C., Geddes, A., Cormie, J., Finlay, D.A., Bignold, L., Hagan, P., Parkhouse, R.M.E., Garate, T., Parsons, J. and Mayrhofer, G. (1997). Immune responses of IL-5 transgenic mice to parasites and aeroallergens. *Mem. Inst. Oswaldo Cruz, Rio de Janeiro*, Vol. **92, Suppl. II**: 45-54.
 70. Harnett,W., MacDonald M., Preece G., Patterson M. & Parkhouse R.M.E. (1997). Production of monoclonal antibodies against excretory-secretory products of adult male *Onchocerca gibsoni*. *J.Parasitol.* **83**: 316-319.
 71. Benitez, L., Harrison, L.J.S., Parkhouse, R.M.E., Gonzalez, L.M., Gottstein, B. & Garate, T. (1998). Sequence and immunogenicity of the *Taenia saginata* homologue of the major surface antigen of *Echinococcus* spp. *Parasitology Research* **84**:426-431.

72. Benitez, L., Harrison, L.J.S., Parkhouse, R.M.E. & Garate, T. (1998). Sequence and preliminary immunochemical characterisation of a *Taenia saginata* oncosphere gene homologue of the small heat shock proteins family 1. *Parasitology Research* **84**:423-425.
73. Deehan, M.R., Frame, M.J., Parkhouse, R.M.E., Seatter, S.D., Reid, S.D., Harnett, M.M. and Harnett, W. (1998). A phosphorylcholine-containing filarial nematode-secreted product disrupts B lymphocyte activation by targeting key proliferative signaling pathways. *J.Immunol.* **160**: 2692-2699.
74. Garcia, H.H., Harrison, L.J.S., Parkhouse, R.M.E., Montenegro, T., Martinez, S.M., Tsang, V.C.W., Gilman, R.H. and the Cysticercosis Working Group in Peru. (1998). Application of a specific antigen detection ELISA to the diagnosis of human cysticercosis. *Transactions of the Royal Society of Tropical Medicine and Hygiene.* **92**: 411-414.
75. Sciutto, E., Hernandez, M., Garcia, G., de Aluja, A.S., Villalobos, A.N.M., Rodarte, L.F., Parkhouse, R.M.E. & Harrison, L.J.S. (1998). Diagnosis of porcine cysticercosis: a comparative study of serological tests for detection of circulating antibody and viable parasites. *Veterinary Parasitology.* **78**:185-194.
76. Sciutto, E., Martinez, J.J., Villalobos, N.M., Hernandez, M., Kose, M.V., Beltran, C., Rodarte, F., Flores, I., Bobadilla, J.R., Fragoso, G., Parkhouse, R.M.E., Harrison, L.J.S. & de Aluja, A.S. (1998). Limitations of current antibody and antigen detection assays for the diagnosis of cysticercosis in rural pigs. *Veterinary Parasitology* **79**: 299-313.
77. Hernandez, M., Beltran, C., Garcia, E., Fragoso, G., Gevorkian, G., Fleury, A., Parkhouse, M., Harrison, L., Sotelo, J. & Sciutto, E. (1999). Cysticercosis: towards the design of a diagnostic kit based on synthetic peptides. *Immunology Letters* **71**: 13-17.
78. Cruz-Revilla, C., Roasas, G., Fragoso, G., López-Casillas, F., Toledo, A., Larralde, C. & Sciutto, E. (2000). *Taenia crassiceps* cysticercosis: Protective effect and immune response elicited by DNA immunization. *Journal of parasitology* **86**: 67-74.
79. Garcia, H.H., Parkhouse, R.M.E., Gilman, R.H., Montenegro, T., Bernal, T., Martinez, S.M., Gonzalez, A.E., Tsang, V.W.C.W., Harrison, L.S.J., and the Cysticercosis Working Group in Peru. (2000) Serum antigen detection in the diagnosis, treatment and follow-up of neurocysticercosis patients. *Transactions of the Royal Society of Tropical Medicine and Hygiene.* **94**:673-676.
80. González, L.M., Montero, E., Puente, S., López-Vélez, R., Hernández, M., Sciutto, E., Harrison, L.J.S., Parkhouse, R.M.E. & Gárate, T. (2000) Differential diagnosis of *Taenia*

saginata and *Taenia solium* infection by PCR. J. Clin. Microbiol., **38**: 737-744.

81. Harrison, L.J.S. and Parkhouse, R.M.E., (2001) Antigens of parasitic helminths in protection and pathology. In Perspectives in Helminthology. Eds. Chowdhury N. & Tada, I. Science Publishers Inc. pp. 369-384.
82. Bonay, P., González, L.M., Benítez, L., Foster, M., Harrison, L.J.S., Parkhouse, R.M.E. and Gárate, T. (2002). Genomic and functional characterisation of a secreted antigen of *Taenia saginata* oncospheres. Molecular & Biochemical Parasitology, **121**: 269-273.
83. Ferrer, E., Cortéz, M., Pérez de la Rosa, M., Alarcóan, DaVilla, Harrison, L.J.S. Foster, M. Parkhouse, R.M.E., and Cabrera, Z. (2002). Serological evidence for recent exposure to *Taenia solium* in Venezuelan Amerindians. American Journal of Tropical Medicine and Hygiene (in press).
84. García H.H., González, Z.A., Gilman, R.E., Bernal, T., Rodríguez, S., Pretell, E.J., Azcurra, O., Parkhouse, R.M.E., Tsang, V., Harrison, L.J.S. (2002). Circulating antigens in patients with hydrocephalus secondary to neurocysticercosis. American Journal of Tropical Medicine and Hygiene. (in press)
85. García, H.H., González, A.E., Gilman, R.H., Bernal, T., Rodríguez, S., Pretell, E.J., Azcurra, O., Parkhouse, R.M.E., Tsang, V.C.W., Harrison, L.J.S. and The Cysticercosis Working Group in Perú Circulating parasite antigen in patients with hydrocephalus secondary to neurocysticercosis. Amer. J. Trop. Med. Hygiene (in press)
86. Gonzalez, L.M., Montero, E., Harrison, L.J.S., Parkhouse, R.M.E. & Garate, T. (2000). Differential diagnosis of *Taenia saginata* and *Taenia solium* taeniasis/cysticercosis from different geographical locations. Diagnostic Microbiology and Infectious Disease, **42**: 243- 249.
87. González, L.M., Montero, E., Sciutto, E., Harrison, L.J.S., Parkhouse, R.M.E. and Garate, T. (2002). Differential diagnosis of *Taenia solium* infections: from DNA probes to polymerase chain reaction. Transactions of the Royal Society of Tropical Medicine and Hygiene, **96**: Supplement 1: 243-250.

VIROLOGY:

1. Sun, H., Jacobs, S., Smith, G.L., Dixon, L.K. & Parkhouse, R.M.E. (1995). African swine fever virus gene j13L encodes a 25-27 kDa virion protein with variable numbers of amino acid repeats. *Journal of General Virology*. **76**: 1117-1127.
2. Brookes, S.M., Dixon, L.K. and Parkhouse, R.M.E. (1996). Assembly of African swine fever virus: Quantitative ultrastructural analysis *in vitro* and *in vivo*. *Virology*. **224**: 84-92.
3. Denham, S., Brookes, S.M., Hutchings, G.H. and Parkhouse, R.M.E. (1996). Granulocyte-macrophage colony stimulating factor (GM-CSF) promotes prolonged survival and the support of virulent infection by African Swine Fever virus of macrophages generated from porcine bone marrow and blood. *J.Gen.Virol.* **77**: 2625-2630.
4. Garcia-Valcarcel M., Doel T.R., Collen T., Ryan M. & Parkhouse R.M.E. (1996). Recognition of foot-and-mouth disease virus (FMDV) and its capsid protein VP1 by bovine peripheral T lymphocytes. *J.Gen.Virol.* **77**: 727-735.
5. Powell, P.P., Dixon, L.K. and Parkhouse, R.M.E. (1996). An African Swine Fever virus encoded I β B homologue provides a novel mechanism for downregulation of proinflammatory cytokine responses in host macrophages. *J.Virol.* **70**: 8527-8533.
6. Sun, H., Jenson, J., Dixon, L.K. and Parkhouse, R.M.E. (1996). Characterisation of the African swine fever virion protein J18L. *Journal of General Virology*. **77**: 941-946.
7. Whittall, J.T.D. and Parkhouse, R.M.E. (1997). Changes in swine macrophage phenotype after infection with African swine fever virus: cytokine production and responsiveness to interferon- γ and lipopolysaccharide. *Immunology* **91**: 444-449.
8. Barnett, P.V., Samuel, A.R., Pullen, L., Ansell, D., Butcher, R.N. and Parkhouse, R.M.E. (1998). Monoclonal antibodies, against O₁ serotype foot-and-mouth disease virus (FMDV), from a natural bovine host, recognise similar antigenic features to those defined by the mouse. *Journal of General Virology* **79**: 1687-1697.
9. Brookes, S.M., Sun, H., Dixon, L.K., & Parkhouse, R.M.E. (1998). Characterisation of African swine fever virion proteins j5R and j13L; immuno-localisation in virus particles and assembly sites. *J.Gen.Virol.* **79**: 1179-1188

10. Brookes, S.M., Hyatt, A.D., Wise, T. and Parkhouse, R.M.E. (1998). Intracellular virus DNA distribution and the acquisition of the nucleo-protein core during African swine fever virus particle assembly: ultrastructural *in situ* hybridisation and DNase-gold labelling. *Virology* **249**: 175-188.
11. Childerstone, A., Takamatsu, H, Yang, Y., Denyer, M. & Parkhouse, R.M.E. (1998). Modulation of T-cell and monocyte function in the spleen following infection of pigs with African swine fever virus. *Vet.Immunol.Immunopath.* **62**: 281-296.
12. Collen, T., Baron, J., Childerstone, A., Corteyn, A., Doel, T.R., Flint, M., Garcia-Valcarcel, M., Parkhouse, R.M.E. and Ryan, M.D. (1998). Heterotypic recognition of recombinant FMDV proteins by bovine T-cells: The polymerase (P3Dpol) as an immunodominant T-cell immunogen. *Virus Research* **56**: 125-133.
13. Cote-Sierra, J., Jongert, E., Bredan, A., Gautam, D.C., Parkhouse, R.M.E., Cornelis, P., De Baetselier, P. and Revets, H. (1998). A new membrane-bound OprI lipoprotein expression vector: High production of heterologous fusion proteins in Gram (-) bacteria and the implications for oral vaccination. *Gene.* **221**: 25-34.
14. Foster, M., Cook, A., Cedillo, L. and Parkhouse, R.M.E. (1998). Serological and cellular immune responses to non-structural proteins in animals infected with FMDV. *Veterinary Quarterly*, **20**: S28-S30.
15. Oura, C.A.L., Powell P.P. & Parkhouse, R.M.E. (1998). Detection of African swine fever virus in infected pig tissues by immunocytochemistry and *in situ* hybridisation. *J.Virol. Methods* **72**: 205-217.
16. Oura, C.A.L., Powell, P.P. & Parkhouse, R.M.E. (1998). African swine fever - a disease characterised by apoptosis. *J.Gen.Virol.* **79**:1427-1438.
17. Oura, C.A.L., Powell, P.P., Anderson, E. & Parkhouse, R.M.E. (1998). The pathogenesis of African swine fever virus in the resistant bushpig. *J.Gen.Virol.* **79**:1439-1443.
18. Sun, H., Dixon, L.K. & Parkhouse, R.M.E. (1998). Expression and characterisation of the African swine fever virus (Malawi LIL 20/1) gene k8R. *Journal of Jiangsu Agricultural College* **19**: 1-7.
19. Childerstone, A.J., Cedillo-Baron, L. and Parkhouse, R.M.E. (1999). Demonstration of bovine CD8 T-cell responses to foot-and-mouth disease virus. *J.Gen.Virol.* (In press).
20. Sun, H., Dixon, L.K. & Parkhouse, R.M.E. (1999). Computer-based prediction and experimental confirmation of the j5R membrane protein of African swine fever virus. *Virologica Sinica* **14**: 236-243

21. Takamatsu, H., Denyer, M.S., Oura, C., Childerstone, A., Andersen, J.K., Pullen, L. and Parkhouse, R.M.E. (1999). African swine fever virus: a B cell mitogenic virus *in vivo* and *in vitro*. *J.Gen.Virol. J.Gen.Virol.* **80**:1453-1461.
22. Jenson, J.S., Childerstone, A., Takamatsu, H-H., Dixon, L.K., Parkhouse, R.M.E. (2000). The cellular immune recognition of proteins expressed by an African swine fever virus random genomic library. *J. Immunol. Meth.* **242**: 33-42.
23. Leitão, A., Cartaxeiro, C., Coelho, R., Cruz, B., Parkhouse, R.M.E., Portugal, F.C., Vigário, J.D. & Martins, C.L.V. (2001). The non-haemadsorbing African swine fever virus isolate ASFV/NH/P68 provides a model for defining the protective anti-virus immune response. *J.Gen. Virol.* **82**:513-523.
24. Cedillo -Barrón, L., Foster-Cuevas, M., Belsham, G.J., Lèfevre, F. and Parkhouse, R.M.E. (2001). Induction of a protective response in swine vaccinated with DNA encoding foot-and-mouth disease virus empty capsid proteins and the 3D RNA polymerase. *J Gen. Virol.* **82**: 1713-1724.
25. Kollnberger, S. D., Gutierrez-Castañeda, B., Foster-Cuevas, M., Corteyn, A., and Parkhouse R.M.E. (2002). Identification of the principal serological immunodeterminants of African swine fever by screening a virus cDNA library with antibody.*J.Gen.Virol.* **83**,1331-1342.

NON-REFEREED PUBLICATIONS

1. (1963) PhD Thesis. Studies on the proteins and glycoproteins of chronic bronchitis sputum. University of London.
2. Parkhouse, R.M.E. and Dutton, R.W. (1964). Medium requirements and culture conditions for the antigen-dependent DNA synthesis of spleen cells *in vitro*. Federation Proc. **23**: 289.
3. Parkhouse, R.M.E. (1965). Antigen-dependent synthesis of RNA by rabbit spleen cells *in vitro*. Federation Proc. **24**: 380.
4. Dutton, R.W. and Parkhouse, R.M.E. (1966). Studies on the mechanism of antigenic stimulation in the secondary response. Molecular and Cellular Basis of Antibody Formation, Prague, 567-576.
5. Askonas, B.A. and Parkhouse, R.M.E. (1969). Immunoglobulin M biosynthesis. Bedhringwerk-Mitteilungen **49**: 143.
6. Bevan, M.J., Parkhouse, R.M.E., Williamson, A.R. and Askonas, B.A. (1972). Biosynthesis of immunoglobulins. Progress in Biophysics, **25**: 131-162.
7. Parkhouse, R.M.E. (1972). Identification of receptor IgM as the 7S subunit (IgMs). Scand.J.Immunol. **1**: 290.
8. Virella, G. and Parkhouse, R.M.E. (1973). Structural studies of human IgG monoclonal proteins using sodium dodecyl sulphate-polyacrylamide gel electrophoresis. Protides. Biol. Fluids 20th Coloq. Edit. H. Peeters. Publ. Pergamon Press, Oxford and New York, pp 43-48.
9. Parkhouse, R.M.E. (1974). Biosynthesis of polymeric immunoglobulins. Progress in Immunology II Vol. I, 119-126.
10. Parkhouse, R.M.E. and Della Corte, E. (1974). Assembly and secretion of immunoglobulin A. "The Immunoglobulin A System". Edit. J. Mestecky and A.R. Lawton. Plenum Publishing Corporation, pp 139-149.
11. Parkhouse, R.M.E. and Abney, E.R. (1974). Surface immunoglobulin on murine lymphocytes. Proc. 9th FEBS Meeting. Publishing House of the Hungarian Academy of Sciences, Prague, pp 151-156.
12. Parkhouse, R.M.E. and Abney, E.R. (1975). Heterogeneity of surface immunoglobulin on murine B-lymphocytes. Proceedings of the International Symposium on membrane receptors of lymphocytes, Paris. Edit. Seligmann, M., Preud'homme, J-L. and Kourilsky, F.M., pp 51-56.

13. Parkhouse, R.M.E. and Della Corte, E. (1975). Control of IgA biosynthesis. VIII Miles International Symposium, 1974.
14. Abney, E.R. and Parkhouse (1976). The detection of IgD and IgM on murine B-lymphocytes in conditions where no Ig can be found on T-lymphocytes. *Advanc. Exp. Med. and Biol.* **66**:373-379.
15. Abney, E.R. and Parkhouse, R.M.E. (1976). Inmunoglobulinas de superficie en los linfocitos-B de raton. XI Reunion Nacional de la Sociedad Mexicana de Bioquimicam p.42.
16. Abney, E.R. and Parkhouse, R.M.E. (1976). Caracterizacion de los receptores para el antigeno en los lifocitos-B de raton. Primer Congreso Nacional de Inmunologia, Sociedad Mexicana de Inmunologia, A.C., p 23-25.
17. Parkhouse, R.M.E. (1976). Lymphocyte receptors for antigen and immunoglobulin. Primer Congreso Nacional de Inmunologia, Sociedad Medicana de Inmunologia, A.C., pp 44-46.
18. Parkhouse, R.M.E. and Montal, M. (1976). Caracteristas de los canales transmembranales formados por hemocianina en vesiculas lipidicas y bicapas planas. XI Reunion Nacional, Sociedad Mexicana de Bioquimica, p8.
19. Abney, E.R., Cooper, M.D., Kearney, J.F., Lawton, A.R. and Parkhouse, R.M.E. (1977). Sequence of heavy chain expression on developing mouse B-lymphocytes. *Proceedings of Workshop on Functional Properties of Tumours of T and B lymphocytes.* (Washington, January, 1977).
20. Abney, E.R., Cooper, M.D., Kearney, J.F., Lawton, A.R. and Parkhouse, R.M.E. (1977). A model for the development of immunoglobulin isotype diversity. *ICN-UCLA Symposium on Molecular and Cellular Biology.* Edit. Sercarz, E.E., Herzenberg, L.A. and Fox, C.F. Publ. Acad. Press, N.Y., Vol. VI, 309-311.
21. Brandon, D.B., Edwards, A. and Parkhouse, R.M.E. (1977). Function of lymphocytes bearing different surface receptors. *J.Supramolecular Structure, Supplement 1, Page 174, Abstract 854.*
22. Parkhouse, R.M.E. (1977). The biosynthesis of immunoglobulin. In: "Immunochemistry". Edit. Glynn, L.E. and Steward, M.W., Publ. J. Wiley and Sons Ltd., pp. 89-112.
23. Parkhouse, R.M.E. and Abney, E.R. (1977). Biochemical approaches to receptors for antigens on B and T lymphocytes. In: "B and T cells in immune recognition". Edit. Loor, F. and Roelands, G.E., Publ. J. Wiley and Sons Ltd., pp 211-234.

24. Parkhouse, R.M.E. and Potter, M. (1977). Molecular weight of mouse IgD expressed by Abelson-virus transformed cells. "Proceedings of Workshop on Functional Properties of Tumours of T and B lymphocytes". (Washington, January, 1977).
25. Parkhouse, R.M.E., Abney, E.R. and Bourgois, A. (1977). Structure and function of mouse cell surface immunoglobulin. ICN-UCLA Symposium on Molecular and Cellular Biology. Edit. Sercarz, E.E., Herzenberg, L.A. and Fox, C.F. Publ. Acad. Press, N.Y., Vol. VI, 305-308.
26. Parkhouse, R.M.E., Abney, E.R. and Bourgois, A. (1977). Structure function and ontogeny of immunoglobulin on murine B lymphocytes. Progress in Immunology III. Edit. T.E. Mandel, C. Cheers, C.S. Hoskins and G.J.V. Nossal. Publ. Australian Acad. Sci., p 58.
27. Parkhouse, R.M.E., Cid, Ma.E. and Calderon (1977). Caracterizacion de antígeno de la superficie celular de entamoebas patogenas. In: VII Seminario, Centro de Estudios Sobre Amibiasis, Unidad de Congresos. Centro Medico National, Mexico, p20.
28. Zettergren, L.D., Lydyard, P.M. and Parkhouse, R.M.E. (1977). Liver as a site of B cell generation of *Xenopus Laevis*. Fed. Proc. **36**: 1239.
29. Parkhouse, R.M.E. (1978). Differentiation of mouse B lymphocytes. In: Developments in clinical immunology. Edit. P. Aveangeli, A.S. Fauci, M.Ricci and P.Torzuoli, Publ. Acad. Press, N.Y., p 249-257.
30. Parkhouse, R.M.E. and Dresser, D.W. (1978). The effects of anti-IgD serum on immune responses. In: Secretory immunity infection. Edit. J.R.McGhee, J.Mestecky and J.L. Babb. Publ. Plenum, N.Y., p.43-51. (Advances in Experimental Medicine and Biology, 107).
31. Parkhouse, R.M.E. and Guarnotta, G. (1978). Rapid binding test for detection of alloantibodies to lymphocyte surface antigens. In: Functional Properties of Tunors of T and B lymphocytes. Edit. M. Potter, N.L. Warner and F.Melchers, Publ. Springer-Verlag, p.142.
32. Parkhouse, R.M.E. (1979). Lymphocyte receptors. In: The function and structure of the immune system. Edit. W.Muller-Rucholtz and H.K. Muller-Hermelink, Publ. Plenum Press, N.Y., p.243 (Advances in Experimental Medicine and Biology, 114).
33. Parkhouse, R.M.E., Lifter, J.L. and Choi, Y.S. (1979). Mode of membrance attachment of surface IgM and IgD. In: B-lymphocytes in the immune response. Edit. M.Cooper, D.Mosier, I.Scher and E.Vitetta, Publ. Elsevier, Amsterdam, p.33.
34. Parkhouse, R.M.E. (1979). Heavy chain class switching and a role for immunoglobulin D. Ann. Immunol. (Inst. Pasteur). **130** 789-790
35. Ogilvie, B.M., Philipp, M., Jungery, M., Maizels, R.M., Worms, M.J. and Parkhouse, R.M.E.

- (1980). The surface of nematodes and the immune response of the host. In: Proceedings Janssen Symposium on host-invader interplay, Beerse, Belgium. Edit. Van den Bosshe, Publ. Elsevier/North Holland Biomedical Press, Amsterdam, p.99.
36. Parkhouse, R.M.E. (1980). Differentiation of the B-lymphocytes. In: Molecules, cells and parasites in immunology. Edit. C. Larralde et al, Publ. Acad. Press, N.Y., pp.43-52.
 37. Philipp, M., Parkhouse, R.M.E. and Ogilvie, B.M. (1980). Biochemical characterisation of stage-specific antigenic proteins on the surface of *Trichinella spiralis*. In: Proceedings Janssen Symposium on the host-invader interplay, Beerse, Belgium. Edit. H.van den Bosshe. Publ. Elsevier/North Holland Biomedical Press, Amsterdam, p.147.
 38. Marshall-Clarke, S., Chayen, A. and Parkhouse, R.M.E. (1981). Differential representation of a surface antigen on virgin and memory B cells. In: B lymphocytes in the immune response: functional, developmental and interactive properties. Edit. N. Klinman, D. Mosier, I. Scher and E.Vitetta. Publ. Elsevier/North Holland Biomedical Press, Amsterdam, P.95.
 39. Ogilvie, B.M., Lee, G.B., Philipp, M. and Parkhouse, R.M.E. (1981). The anti-genicity of the nematode surface. In: Towards an understanding of host-parasite relationships in natural and experimental infection. Edit. J.C. Salomon. Publ. INSERM, France.
 40. Philipp, M., Parkhouse, R.M.E. and Ogilvie, B.M. (1981). Molecular basis for stage specificity of the primary antibody response to the surface of *Trichinella spiralis*. In: Trichinellosis. Edit. C.W.Kim and E.J.Ruitenber. Publ. Reedbooks. p.59-63.
 41. Chayen, A., Marshall-Clarke, S. and Parkhouse, R.M.E. (1981). Functional studies on subpopulations of B-lymphocytes and bone marrow cells. *Advanc.Exp.Med.Biol*, **149**:53-59.
 42. Kemshead, J.T., Greaves, M.F., Walsh, F., Chayen, A and Parkhouse, R.M.E. (1981). Monoclonal antibodies to human neuro-blastoma reveal a heterogeneity in antigenic expression within the tumor. *Proceedings of the American Association for Cancer Research* **22**: p.399.
 43. Kemshead, J.T., Greaves, M.F., Pritchard, J., Walsh, F., Parkhouse, R.M.E., Chayen, A. and Kennett, R. (1981). Monoclonal antibodies to human neuro-blastoma cells. *British Journal of Cancer* **43**: p.568.
 44. Chayen, A., Marshall-Clarke, S. and Parkhouse, R.M.E. (1982). Functional studies on subpopulations of lymphocyte-B and bone marrow cells. *Advances in Experimental Medicine and Biology* **149**: 53-59.
 45. Parkhouse, R.M.E., Chayen, A. and Marshall-Clarke, S. (1982). Functional aspects of Immunoglobulin D (IgD). *Annals of the New York Academy of Science*, **399**: 340.
 46. Philipp, M., Worms, M.J., Maizels, R.M., McLaren, D.J., Parkhouse, R.M.E., Taylor, P.M.

- and Ogilvie, B.M. (1982). A nematode antigen and a host component on the surface of *Litomosoides-carinii*. *Parasitology* **84**: R30-R31.
47. Andrew, E.M. and Parkhouse, R.M.E. (1983). Induction of 1A-antigen expression in murine kidney. *Histochemical Journal* **15**: p.1258.
 48. Parkhouse, R.M.E., Andrew, E.M., Chayen, A. and Marshall-Clarke, S. (1983). Heterogeneity of B-cells. *Annals of the New York Academy of Sciences*. **409**: 215.
 49. Philipp, M., Beltranhernandez, F., Clark, N.W.T., Davies, M.W., Gomez Priego, A., Ogilvie, B.M. and Parkhouse, R.M.E. (1983). *Onchocerca-volvulus* - Biochemical characterisation of the principal antigen of surface radioiodinated adult worms - a reagent for epidemiological studies. *Parasitology* **87**: p.R54.
 50. Almond, N.M., McLaren, D.J. and Parkhouse, R.M.E. (1984). Comparison of the surface and secreted antigens and the ultrastructure of *Trichinella-spiralis* and *Trichinella-pseudospiralis*. *Parasitology* **89**: p.R41-R42.
 51. Owen, J.J.T., Kincade, P.W., Zharhary, D., Riley, R.L., Schaefer, M., Klinman, N., Andrew, E.M., Marshall-Clarke, S., Parkhouse, R.M.E., Truffabachi, P., Colle, J.H. and Lemoal, M.A. (1984). 4th Forum in Immunology - B-cell ontogeny - Discussion. *Annales D. Immunologie*, Vol. D135, 216-220.
 52. Parkhouse, R.M.E. Immunopurification. *British Medical Bulletin* (1984), Vol. **40**: 297-301.
 53. Parkhouse, R.M.E., Harrison, L.J.S., Ortega-Pierres, M.G., Clark, N.W.T. (1984). Diagnostic antigens for bovine and human cysticercosis. *Annals of Tropical Medicine and Parasitology*, **78**: 234.
 54. Parkhouse, R.M.E. (1984). Parasite evasion of the immune response. *Parasitology*, **88**: p. 571
 55. Almond, N.M., McLaren, D.J. and Parkhouse, R.M.E. (1985). A comparison of the surface and secretions of *Trichinella spiralis* and *T.pseudospiralis*. In: Proc. VI International Conference Trichinellosis. Edited by C.W.Kim, Chertsey, Reedbooks, pp 151-156.
 56. Almond, N.M. and Parkhouse, R.M.E. (1985). Nematode Antigens. In: "Parasite Antigens in Protection Diagnosis and Escape". Ed. Parkhouse, R.M.E. In series "Current Topics in Microbiology and Immunology". Publ. Springer-Verlag, Heidelberg, **120**: 173-203.

57. Andrew, E.M., Mackenzie and Parkhouse, R.M.E. (1985). Functional differences associated with quantitative distribution of Ia antigens on mouse B-cells. In: "Microenvironments in the lymphoid system". Edit.Klaus, G.G.B., Publ. Plenum, N.Y., 451-456.
58. Greenwood, M.R. and Parkhouse, R.M.E. (1985). Functional subpopulations of lymphocytes in rodents. In: Handbook of monoclonal antibodies; applications in biology and medicine. Edited by S.Ferrone and M.P.Dierich, New Jersey, Noyes Publications, pp. 11-35.
59. Harrison, L.J.S. and Parkhouse, R.M.E. (1985). Antigens of Taeniid cestodes in protection, diagnosis and escape. In: "Parasite Antigens in Protection, Diagnosis and Escape", in series "Current Topics in Microbiology and Immunology", Vol. **120**: ed. Parkhouse, R.M.E., publ. Springer-Verlag, Heidelberg, pp. 159-172.
60. Ortega-Pierres, M.G., Parkhouse, R.M.E., Mackenzie, C.D. and Clark, N.W.T. (1985). Monoclonal antibodies directed against defined stage specific antigens of *Trichinella spiralis*: generation, characterisation and biological assays. In: Proc.VI International Conference Trachinellosis. Edited by C.W.Kim, Chertsey, Reedbooks, pp.36-39.
61. Parkhouse, R.M.E. (1985) Mechanisms of B-cell Neoplasia. Publ.Roche, Basel, pp 48-54.
62. Parkhouse, R.M.E. (editor) (1985). "Parasite Antigens in Protection, Diagnosis and Escape". Springer-Verlag, Heidelberg. In: Current Topics in Microbiology and Immunology. Vol. 120.
63. Andrew, E.M., Mackenzie, N.M. and Parkhouse, R.M.E. (1986). Functional differences associated with quantitative distribution of Ia antigens on mouse B-cells. In: Microenvironments in the lymphoid system. Advances in Experimental Medicine and Biology 186. Edited by G.G.B.Klaus, published by Plenum Press, New York, pp. 451-455.
64. Harnett, W., Cabrera, Z. and Parkhouse, R.M.E. (1986). Prospects for specific diagnosis of onchocerciasis. Tropical Medicine and Parasitology, **37**: 81.
65. Parkhouse, R.M.E. and Cabrera, Z. (1986). Radiolabelled parasite antigens as tools for diagnostic and identification of protective antigens. International Symposium on Nuclear Medicine and Related Medical Application of Nuclear Techniques in Developing Countries (Vienna, Austria, 26-30 August 1985, pp. 135-148.
66. Chambers, A.E., Knight, M., Kelly, C., Simpson, A.J.G. and Parkhouse, R.M.E. (1987). *Trichinella-spiralis* - cloning stage specific antigen genes. Journal of Cellular Biochemistry, No. S11A, p.157.
67. Harnett, W., Chambers, A. and Parkhouse, R.M.E. (1987). Cloning of an *Onchocerca volvulus* specific DNA sequence for use in speciation of L3's in blackflies. Journal of Cellular Biochemistry, Supplement 11A, 158.
68. Harnett, W., Chambers, A. and Parkhouse, R.M.E. (1987). Cloning of an *Onchocerca*

- volvulus* specific DNA sequence for use in speciation of L3's in blackflies. *Tropical Medicine and Parasitology*, **38**: 66.
69. Harnett, W., Chambers, A. and Parkhouse, R.M.E. (1987). Cloning of an *Onchocerca volvulus* specific DNA sequence for use in speciation of L3's in blackflies. In: *Molecular paradigms for eradicating helminth parasites*. UCLA Symposia on Molecular and Cellular Biology, New Series. Edited by A.MacInnis, Vol. **59**: 281-288.
 70. Parkhouse, R.M.E., Cabrera, Z. and Harnett, W. (1987). *Onchocerca* antigens in protection, diagnosis and pathology. In: *CIBA Foundation Symposium*, **127**: 125-145.
 71. Premaratne, U.N., Parkhouse, R.M.E. and Denham, D.A. (1987). Variable levels of host immunoglobulin on microfilariae of *Brugia pahangi* isolated from the blood of cats. In: *Helminth Zoonosis*. Edited by S.Geerts, V.Kumar and J.Brandt. Publ. Martinus Nijhoff (Dordrecht, Boston, Lancaster), pp. 215-224.
 72. Cabrera, Z., Buttner, D.W. and Parkhouse, R.M.E. (1988). Unique recognition of a low molecular weight *Onchocerca volvulus* antigen by IgG3 antibodies in chronic hyper-reactive oncho-dermatitis (Sowda). *Clin.Emp.Immunol.* **74**: 223-229.
 73. Conraths, F.J., Harnett, W. and Parkhouse, R.M.E. (1989). Cloning and expression of surface associated polypeptides of *Onchocerca volvulus* microfilariae. *Trop.Med.Parasit.* **40**: (Supp.1) 82-83.
 74. Harrison, L.J.S. and Parkhouse, R.M.E. (1989). *Taenia saginata* and *Taenia solium*: reciprocal models. In: "Cysticercosis Now". *Acta Leidensia*, **57**: 143-152.
 75. Parkhouse, R.M.E. (1989). *Trichinella spiralis*: a model parasite. In: "Trichinellosis". *Proceedings of the 8th International Conference on Trichinellosis*. Edit. C.W.Kim. In press.
 76. Harnett, W. and Parkhouse, R.M.E. (1992) The nature and function of nematode surface and excretory-secretory antigens. In *Perspectives in Nematode Physiology and Biochemistry* pp. 207-242. (Ed. M.L. Sood & Jyotika Kapur).
 77. Parkhouse, R.M.E., Santos-Argumedo, L., Teixeira, C., Henry, R.V., and Wawrzynczak, E. (1992) Two surface antigen targets for immunotoxin-mediated elimination of normal and neoplastic murine B cells. *Current Topics in Microbiology and Immunology.* **182**: 331-335.
 78. Bean, A.G.D., Godfrey, D.I., Santos Argumedo, L., Parkhouse, R.M.E., Howard, M.C. and Zlotnik, A. (1993). Expression of CD38 in the mouse thymus - CD38 defines functionally distinct Alpha-Beta-TCR+CD4-CD8- Thymocyte subsets. *Journal of Leukocyte Biology*, No. **55**, p.54.

79. Gárate, T., Harrison, L.J.S., & Parkhouse, R.M.E. (1993) Antigenos de helmintos parasitos en proteccion y patologia. In: Parasitologia Molecular. Edit. Luis Rivas López, Manuel Carlos López López. Publ. Consejo Superior de Investigaciones Científicas, Madrid. pp. 287-302.
80. Harrison, L.J.S., Parkhouse, R.M.E. (1993) Antigens of parasitic helminths in protection and pathology. In "Helminthology" Ed. Chawdhury, N. Springer Verlag.
81. Howard, M., Santos Argumedo, L., Grimaldi, C., Bazan, F., Harada, N. and Parkhouse, R.M.E. (1993). B-cell triggering via CD38. Journal of Cellular Biochemistry No. S17B, p.159.
82. Law, C.L., Torres, R.M., Sundberg, H.A., Parkhouse, R.M.E., Brannan, C.I., Copeland, N.G., Jenkins, N.A. and Clark, E.A. (1993). Organisation of the gene locus encoding murine CD22, CD22 - mapping to chromosome-7 and characterisation of 2 alleles. Journal of Cellular Biochemistry, No. S17B, p.168.
83. Santos Argumedo, L., Harada, N., Chang, R., Heath, A.W., Grimaldi, C., Parkhouse, R.M.E. and Howard, M. (1993). Cloning of a novel B-cell activation antigen related to human CD38. Journal of Cellular Biochemistry, No, S17B, p.169.
84. Wakelin, D.W. Harnett, W. and Parkhouse, R.M.E. (1993) Immunology and molecular biology of nematode infections. In Immunol. of Parasitol. Infections, third edition (Eds. S. Cohen & K.S. Warren). **19**: 496-526.
85. Harrison, L.J.S., Parkhouse, R.M.E. (1994) Antigens of parasitic helminths in protection and pathology. In: Helminthology **10**, 259-271. Edited by N Chowdhury and I Tada. Published by Narosa Publishing House, New Delhi, Madras, Bombay and Calcutta. Exclusive distribution in North America (including Mexico), Canada and Europe by Springer-Verlag, Berlin, Heidelberg and New York.
86. Justement, L.B., Bobbitt, K., Susarla, H.K., Clark, E.A., Parkhouse, R.M.E. and Brown, V.K., (1994). CD22 is an accessory signal-transduction molecule that regulates B-cell activation via the antigen receptor complex. Journal of Cellular Biochemistry No. S18D, p. 374.
87. Lund, F.E., Cooke, M., Santos Argumedo, L., Heath, A., Yu, N., Solvason, N., Grimadli, J.C., Parkhouse, R.M.E., Goodnow, C. and Howard, M. (1994). CD38 is functionally associated with the Ig receptor complex and exhibits a signalling defect in 2 immunodeficientB-cell subsets. Journal of Cellular Biochemistry No. S18D, p. 299.

88. Lunney, J.K., Walker, K., Goldman, T., Aasted, B., Bianchi, A., Binns, R., Licence, S., Bischof, R., Brandon, M., Blecha, F., Kielian T.L., McVey, D.S., Chu, R.M., Carr, M., Howard, C., Sopp, P., Davis, W., Dvorak, P., Dominguez, J., Canals, A., Vizcaino, J.M.S., Kim, Y.B., Laude, H., Mackay, C.R., Magnusson, U., McCullough, K., Misfeldt, M., Murtaugh, M., Molitor, T., Choi, C., Pabst, R., Parkhouse, R.M.E., Denham, S., Yang, H., Pescovitz, M., Pospisil, R., Tlaskalova, H., Saalmueller, A., Weiland, E., Salmon, H., Sach, D., Arn, S., Shimizu, M., Stokes, C., Stevens, K., Valpotic, I., Zuckermann, F. and Husmann, R. (1994). Overview of the first International Workshop to define swine leukocyte cluster of differentiation (CD) antigens. *Veterinary Immunology and Immunopathology* **43**: 193-206.
89. Parkhouse, R.M.E., Baron, J., Childerstone, A., Collen, T.C., Doel, T., Flint, M., Foster-Cuevas, M., Garcia Valcarcel, M., Ryan, M., Takamatsu, H. (1995). Immunological recognition of FMDV and its proteins in the bovine. *Journal of Cellular Biochemistry No. S19A*, p. 323.
90. Parkhouse, R.M.E., Gárate, T., Benítez, L., Kirkham, P., Brookes, S.M., Wright, S.H., Harrison, L.J.S. (1996). Approaches towards a vaccine for human, porcine and bovine cysticercosis. In: *Teniasis/Cisticercosis por T.solium*. (Eds. H.H.Garcia & S.M.Martínez M.) pp. 65-78.
91. Harrison, L.J.S., Onyango-Abuje, J.A., Sciutto, E., Parkhouse, R.M.E. (1996). Application of an antigen-detection ELISA in the seroepidemiology of cysticercosis. In: *Teniasis/Cisticercosis por T.solium*. (Eds. H.H.Garcia & S.M.Martínez M.)(publ. Editorial Universo S.A. Lima, Peru) pp. 269-276.
92. Kirkham, P.A., Takamatsu, H. and Parkhouse, R.M.E. (1996). Gamma delta T-cell G0/G1 cell cycle arrest is associated with activation of multiple tyrosine phosphatases by anti-WC1. *Immunology* **89**: p. AA285.
93. Parkhouse, R.M.E. and Howard, M. (1996). The enigma of CD38, a multifunctional ectoenzyme. In: *Lymphocyte Signalling*, (Eds. M.M.Harnett & K.P.Rigley)(publ. John Wiley & Sons) pp. 71-76.
94. Parkhouse, R.M.E., Kirkham, P.A. and Takamatsu, H. (1996). A gamma delta T-cell specific surface receptor controlling proliferation. *Immunology* **89**: p. SAA85.
95. Cedillo-Baron, L., Childerstone, A., Cook, A., Foster-Cuevas, M. and Parkhouse, R.M.E. (1997). Cellular immune response to foot-and-mouth disease virus. *Biochemical Society Transactions* **25**: p.S275.
96. Cook, A., Angove, H., Cedillo-Baron, L., Foster-Cuevas, M. and Parkhouse, R.M.E. (1997). Cellular and humoral immunity to foot-and-mouth disease virus and its non-structural proteins in infected swine. *Biochemical Society Transactions* **25**: p. S273.

GRANTS HELD

WHO	TDR, Filariasis	1980-1983
WHO	TDR, Filariasis	1983-1986
EEC	Link with Mexico, Filariasis	1984-1987
Clark Foundation	<i>Onchocerca</i>	1986-1989
Comision Asesora (Spain)	<i>Trinchinella</i> Project	1988-1991
EEC (Link with Spain)	African Swine Fever Haemorrhage ER BSCI*CT92-0825	1993-1994
EEC	Protective Immune Response Against African Swine Fever Virus	1991-1994 303,114 ECU
EEC	Control of porcine and human <i>Taenia</i> <i>solium</i> infection in Mexico. TS3*-CT94-0277	1994-1996 150,000 ECU
EEC	Control of <i>Taenia solium</i> and <i>Taenia</i> <i>saginata</i> cysticercosis through specific diagnosis: systematic epidemiology and development of recombinant vaccine candidates IC18-CT95-0002	1996-1999 113,513 ECU
EEC	Genetic vaccination of pigs against viral diseases:evaluation of combined injection of DNA plasmids coding for cytokines and protective antigens FAIR 1317	1999-2000 201,060 ECU
BBSRC	Immune-deficient SCID mice as models of ruminant and porcine haematolympho-poiesis Characterisation of an African swine fever virus protein, A238L, which modulates the host immune response Intracellular signalling pathways in normal and virus infected cells	1992-1995 86,930 ECU 1999-2002 223,621 ECU 1993-1996 137,500 ECU
MAFF	Identification of ASFV-carrier animals and sites of virus persistence. SE1503I Development of specific probes for defining immune function in healthy and African swine fever virus infected pigs. SE1505	1991-1994 1997-2000
EU Project	QLK3-2000-00362 (Coordinator of Four partners) Three year project, The potential and application of virus host evasion genes	Start 1/11/2000 1,082.315 Euros

	that modify apoptosis and cytokine responses	
FCT Project	36403/99	Start 11/5/2001
	Three year project	
	The potential and application of virus host evasion genes that modify apoptosis and cytokine responses.	125,000 Euros
EU Project	QLK2-CT-2001-02216, Three year project, African swine fever (ASF):Improved diagnostic methods and understanding of virus-host epidemiology and virus-host interaction.	Start 1/11/2001 30,000 Euros