PUBLICATIONS (15.11.2025)

Professor David Lloyd DSc MBE

A. THESES AND BOOKS (written and edited)

1. *The Metabolism of Organic Acids by Unicellular Algae.* Ph.D. Thesis, University of Wales (1964).

2. D.Sc. Thesis, University of Sheffield (1972).

3. *The Mitochondria of Microorganisms.* Lloyd, D. pp.xii + 553. Academic Press, London (1974).

4. Cyanide-insensitive respiration in *Acanthamoeba castellanii.* In: *Functions of Alternative Terminal Oxidases*, (Eds. H. Degn, D. Lloyd, G.C. Hill), p.196. Pergamon, Oxford, (1978).

5. *The Eukaryotic Microbial Cell*. SGM Symposium 30. (Eds. G.W. Gooday, D. Lloyd, A.P.J. Trinci), p.439. Cambridge University Press, (1980).

6. *The Cell Division Cycle : Temporal Organisation and Control of Cellular Growth and Reproduction*. Lloyd, D., Poole, R.K., Edwards, S.W. pp.vi + 523. Academic Press, London, (1982).

7. *The Contribution of Science to Cancer Medicine*. (Eds. T.J. Deeley, D. Lloyd, W.H. Sutherland), p.96. Clifton House Press, Cardiff, (1988).

8. *The Division and Segregation of Organelles*, (Eds. S.A. Boffey, D. Lloyd), p.252. Cambridge University Press, (1988).

9. *Biochemistry and Molecular Biology of "Anaerobic" Protozoa*. (Eds. D. Lloyd, G.H. Coombs, T.A. Paget), p.289. Harwood Academic, Chur, (1989).

10. *Ultradian Rhythms in Life Processes*: *an inquiry into fundamental principlesof chronobiology and psychobiology* (Eds. D. Lloyd, E. Rossi), pp.xiii + 419. Springer Verlag, London, (1992).

11. *Flow Cytometry in Microbiology*, (Ed. D. Lloyd). Springer Verlag, London, (1993).

12. *Microbiology: Past, Present and Future*, (Eds. D. Lloyd, W.A. Venables, J.B. Evans). BioLine, Cardiff, (1994).

13. *An Introduction to Metabolic and CellularEngineering,* (S. Cortassa, M.A. Aon, A.A. Inglesias, D. Lloyd). World Scientific, Singapore (2002).

14. *Ultradian Rhythms from molecules to mind: a new vision of life* (Eds. D. Lloyd, E. Rossi), pp.x + 450. Springer Verlag, London, (2008).

15. *An Introduction to Metabolic and CellularEngineering, second edition* (S. Cortassa, M.A. Aon, A.A. Inglesias, J. C Aon, D. Lloyd), pp. xvii +428 World Scientific, Singapore (2012).

B. ORIGINAL PAPERS IN JOURNAL

1. The metabolism of Acetate in the colourless alga, *Prototheca zopfii.* Callely, A.G., Lloyd, D. (1964). *Biochem. J.* **90**, 483.

2. The metabolism of propionate in the colourless alga, *Prototheca zopfii.* Callely, A.G., Lloyd, D. (1964). *Biochem. J*. **92**, 338.

3. Purification and properties of malonic semialdehyde oxidative decarboxylase from *Prototheca zopfii.* Lloyd, D. (1965). *Biochem. J.* **96**, 766.

4. The assimilation of acetate and propionate by *Prototheca zopfii.* Lloyd, D., Callely, A.G. (1965). *Biochem. J.* **97**, 176.

5. Respiratory control in mitochondria isolated from the colourless alga, *Prototheca zopfii.* Lloyd, D. (1965). *Biochim. Biophys. Acta*. **110**, 425.

6. Inhibition of electron transport in *Prototheca zopfii.* Lloyd, D. (1966). *Phytochem.* **5**, 2438.

7. The level of vitamin B_{12} in propionate-grown *Prototheca zopfii.* Lloyd, D. (1965). *Nature*, **211**, 756.

8. Isolation of mitochondria from *Prototheca zopfii.* Lloyd, D. (1967). *J. Exptl. Cell Res.* **45**, 120.

9. An oxygen electrode reaction vessel. Lloyd, D., Brookman, J.S.G. (1967). *Biotech. Bioeng.* **9**, 271.

10. The regulation of propionate oxidation in *Prototheca zopfii.* Lloyd, D., Venables, S.E. (1967). *Biochem. J.* **104**, 639-646.

11. The structure and composition of the cell wall of *Prototheca zopfii.* Lloyd, D., Turner, G. (1968). *J. Gen. Microbiol.* **50**, 421.

12. Zonal centrifugation of rat liver. Klucis, E., Lloyd, D., Roach, G. (1968). *Biotech. Bioeng.* **10**, 321.

13. Isolation of mitochondria from *Acanthamoeba castellanii.* Lloyd, D., Griffiths, A. (1968). *Exptl. Cell Res.* **51**, 291.

14. Electron transport in mitochondria from *Polytomella caeca.* Lloyd, D., Chance, B. (1968). *Biochem. J.* **107**, 829.

15. Propionate assimilation in the flagellate *Polytomella caeca:* an inducible mitochondrial enzyme system. Lloyd, D., Evans, D.A., Venables, S.E. (1968) *Biochem. J.* **109**, 897-907.

16. The effect of chloramphenicol on structure and function of mitochondria in *Polytomella caeca.* Lloyd, D., Evans, D.A., Venables, S.E. (1970). *J. Gen. Microbiol.* **61**, 33.

17. Subcellular fractionation of *Tetrahymena pyriformis* by zonal centrifugation: changes in distribution and activities of enzymes during ageing and starvation and distribution. Lloyd, D., Brightwell, R., Roach, G.I., Turner, G., Venables, S.E. (1971). *J. Gen. Microbiol.* **65**, 209-223.

18. Subcellular fractionation of eukaryotic microorganisms using a BXIV rotor. Cartledge, T.G., Cooper, R.A., Lloyd, D. (1971). In: *Separations with Zonal Rotors*, (Ed. E. Reid), p.V 4.1. Wolfson Analytical Centre, Guildford, Surrey.

19. Electron transport in phosphorylating mitochondria isolated from *Tetrahymena pyriformis* strain ST. Turner, G., Lloyd, D., Chance, B. (1971). *J. Gen. Microbiol.* **65**, 359-374.

20. The effect of chloramphenicol on growth and mitochondrial function of the ciliate protozoon, *Tetrahymena pyriformis* strain ST. Turner, G., Lloyd, D. (1971). *J. Gen. Microbiol.* **67**, 175-188.

21. Sedimentation characteristics of mitochondria, peroxisomes and lysosomes from the ciliate protozoon, *Tetrahymena pyriformis* strain ST after chloramphenicol-inhibited growth. Poole, R.K., Nicholl, W.G., Turner, G., Lloyd, D. (1971). *J. Gen. Microbiol.* **67**, 161-173.

22. Subcellular fractionation by differential and zonal centrifugation of grown, glucose derepressed *Saccharomyces cerevisiae.* Cartledge, T.G., Lloyd, D. (1972). *Biochem. J.* **126**, 381-393.

23. A hypothesis of nuclear-mitochondrial interactions for the control of mitochondrial biogenesis based on experiments with *Tetrahymena pyriformis.* Lloyd, D., Turner, G., Poole, R.K., Nicholl, W.G., Roach, G.I. (1971). *Subcellular Biochemistry*, **1**, 91-95.

24. The "microsomal fraction" from *Tetrahymena pyriformis,* strain ST : characterisation and subfractionation. Poole, R.K., Nicholl, W.G., Howells, L., Lloyd, D. (1971). *J. Gen. Microbiol.* **68**, 283-295.

25. Subcellular fractionation of particles containing acid hydrolyses from *saccharomyces carlsbergensis.* Cartledge, T.G., Lloyd, D. (1972). *Biochem. J.* **126**, 755-757.

26. Subcellular fractionation by zonal centrifugation of anaerobically-grown glucose repressed *Saccharomyces carlsbergensis.* Cartledge, T.G., Lloyd, D. (1972). *Biochem. J.* **127**, 693-703.

27. The effects of 2-deoxyglucose on growth and cell wall structure and function of *Shizosaccharomyces pombe.* Poole, R.K., Lloyd, D. (1972). *Arch. Microbiol.* **88**, 257-272.

28. Subcellular fractionation by zonal centrifugation of the colourless alga, *Polytomella caeca.* Cooper, R.A., Lloyd, D. (1972). *J. Gen. Microbiol.* **72**, 59-70.

29. The acid hydrolases containing organelles of eukaryotic microorganisms. Morgan, N.A., Howells, L., Cartledge, T.G., Lloyd, D. (1972). In: *Separations in Zonal Rotors*, (Ed. E. Reid), pp. 219-232. University of Surrey Press, Guildford.

30. The cytochromes of *Tetrahymena pyriformis*. Lloyd, D., Chance, B. (1972). *Biochem. J.* **128**, 1171-1182.

31. The development of the respiratory chain of *Saccharomyces carlsbergensis* during respiratory adaptation. Cartledge, T.G., Lloyd, D., Erekinska, M., Chance, B. (1972). *Biochem. J.* **130**, 739-747.

32. Changes in enzyme activities and distributions during glucose derepression and respiratory adaptation of anaerobically grown *Saccharomyces carlsbergensis*. Cartledge, T.G. Lloyd, D. (1973). *Biochem. J.* **132**, 609-621.

33. Respiratory oscillations and heat evolution in synchronously-dividing cultures of the fission yeast *Schizosaccharomyces pombe* 972h$^-$. Poole, R.K., Lloyd, D., Kemp, R.B. (1973). *J. Gen. Microbiol.* **77**, 209-220.

34. Change in enzyme activities in synchronously dividing cultures of the fission yeast *Schizosaccharomyces pombe* 972 h$^-$. Poole, R.K., Lloyd, D. (1973). *Biochem. J.* **136**, 195-207.

35. Co-reacting haemoproteins and terminal oxidases in *Crithidia fasciculata.* Edwards, C., Lloyd, D. (1973). *J. Gen. Microbiol.* **79**, 275-284.

36. Subcellular localization of acid p-nitrophenyl phosphatases in *Polytomella caeca* studied by cell fractionation and electron microscopy. Cooper, R.A., Bowen, I.D., Lloyd, D. (1974). *J. Cell Science* **15**, 605-618.

37. Development of the cytochromes of *Schizosaccharomyces pombe* during the cell cycle. Poole, R.K., Lloyd, D., Chance, B. (1974). *Biochem. J.* **138**, 201-210.

38. Use of zonal rotors in the study of the cell cycle. Poole, R.K., Lloyd, D. (1974). In: *Methodological Development in Biochemistry,* Vol. 4 *Subcellular Studies,* (Ed. E. Reid), pp. 347-355. Longmans, London.

39. Marker enzymes in eukaryotic microorganisms. Lloyd, D., Cartledge, T.G. (1974). In: *Methodological Development in Biochemistry,* Vol. 4 *Subcellular Studies,* (Ed. E. Reid), pp. 339-346 Longmans, London.

40. Changes in respiratory activities during the cell-cycle of the fission yeast, *Schizosaccharomyces pombe* 972 h$^-$ growing in the presence of glycerol. Poole, R.K., Lloyd, D. (1974). *Biochem. J.* **144**, 141-148.

41. Establishment of large scale synchronous cultures of microorganisms by continuous flow size selection. Lloyd, D., John, L., Edwards, C., Chagla, A.H. (1975). *J. Gen. Microbiol.* **88**, 153-158.

42. Establishment of large scale synchronous cultures of the trypanosomatid, *Crithidia fasciculata,* by cell-size selection: Changes in respiration and adenylate charge through the cell cycle. Edwards, C., Statham, M. & Lloyd, D. (1975). *J. Gen. Microbiol.* **88**, 149-152.

43. The development of mitochondrial iron-sulphur proteins during respiratory adaptation of *Saccharomyces carlsbergensis.* Ohnishi, T., Cartledge, T G. & Lloyd, D. (1975). *FEBS Letts.* **52**, 90-94.

44. Subcellular fractionation of *Schizosaccharomyces pombe* 972 h^-. Poole, R.K., Lloyd, D. (1976). *J. Gen. Microbiol.* **93**, 241-250.

45. Mitochondrial adenosine triphosphatase of the fission yeast, *Schizosaccharomyces pombe* 972 h^-: Changes in activity and inhibitor-sensitivity in response to catabolite repression. Lloyd, D., Edwards, S.W. (1976). *Biochem. J.* **160**, 335-342.

46. Mitochondrial adenosine triphosphatase of the fission yeast, *Schizosaccharomyces pombe* 972 h^-: Changes in activity and oligomycin-sensitivity during the cell cycle of catabolite-repressed and de-repressed cells. Lloyd, D., Edwards, S.W. (1977). *Biochem. J.* **162**, 39-46.

47. Mitochondrial adenosine triphosphatase of the fission yeast, *Schizosaccharomyces pombe* 972 h^-: Changes in inhibitor sensitivities during the cell cycle indicate similarities and differences in binding sites. Lloyd, D., Edwards, S.W. (1977). *Biochem. J.* **162**, 581-590.

48. Continuous-flow cell cycle fractionation of eukaryotic microorganisms. Lloyd, D., John, L., Hamill, M., Phillips, C., Kader, J., Edwards, S.W. (1977). *J. Gen. Microbiol.* **99**, 223-227.

49. The cytochromes of *Acanthamoeba castellanii.* Edwards, S.W., Chagla, A.H., Griffiths, A.J., Lloyd, D. (1977). *Biochem. J.* **168**, 113-121.

50. Changes in oxygen uptake rates, enzyme activities, cytochrome amounts and adenine nucleotide pool levels during growth of *A.castellanii.* Edwards, S.W., Lloyd, D. (1977). *J. Gen. Microbiol.* **102**, 135-144 (1977).

51. Cyanide-insensitive respiration of *Acanthamoeba castellanii.* Changes in sensitivity of whole cell respiration during exponential growth. Edwards, S.W., Lloyd, D. (1977). *J. Gen. Microbiol.* **103**, 207-213.

52. Subcellular fractionation by differential and zonal centrifugation of the trypanosomatid *Crithidia fasciculata.* Edwards, C., Lloyd, D. (1977). *J. Gen. Microbiol.* **100**, 339-346.

53. Continuous-flow size selection of *Tetrahymena pyriformis* ST - Changes in volume, DNA, RNA and protein during synchronous growth. Phillips, C.A., Lloyd, D. (1978). *J. Gen. Microbiol.* **105**, 95-103.

54. Properties of mitochondria isolated from cyanide-sensitive and cyanide-stimulated cultures of *Acanthamoeba castellanii.* Edwards, S.W., Lloyd, D. (1978). *Biochem. J.* **174**, 203-211.

55. Starvation of *Prototheca zopfii;* changes in structure and function. Morgan, N.A., Venables, S.A., Howells, L., Lloyd, D. (1978). *J. Gen. Microbiol.* **105**, 1-10.

56. Oscillations of respiration and adenine nucleotides in synchronous cultures of *Acanthamoeba castellanii:* Mitochondrial respiratory control *in vivo.* Edwards, S.W., Lloyd, D. (1978). *J. Gen. Microbiol.* **108**, 197-204.

57. Oscillations of respiration, adenine nucleotide levels and heat evolution in synchronous cultures of *Tetrahymena pyriformis* ST prepared by continuous flow selection. Lloyd, D., Phillips, C.A., Statham, M. (1978). *J. Gen. Microbiol.* **106**, 19-26.

58. The effect of inhibitors on the oxygen kinetics of terminal oxidases of *Acanthamoeba castellanii.* Lloyd, D., Edwards, S. (1979). *Biochem. J.* **182**, 11-15.

59. Respiration of *Tritrichomonas foetus:* Absence of detectable cytochromes. Lloyd, D., Lindmark, D.G., Muller, M. (1979). *J. Parasitol.* **65** (3), 460-466.

60. Adenosine triphosphatase of *Tritrichomonas foetus.* Lloyd, D., Lindmark, D.G., Muller, M.(1979). *J. Gen. Microbiol*. **115**, 301-307.

61. The reaction of cytochrome oxidase with oxygen in the fission yeast *Schizosaccharomyces pombe* 972 h^-. Poole, R.K., Lloyd, D., Chance, B. (1979). *Biochem. J.* **184**, 555-563.

62. Chemiluminescence of *Acanthamoeba castellanii.* Lloyd, D., Boveris, A., Reiter, R., Filipkowski, M., Chance, B. (1979). *Biochem. J.* **184**, 149-156.

63. Oscillations of redox states in synchronously dividing cultures of *Acanthamoeba castellanii* and *Schizosaccharomyces pombe.* C. L. Bashford, Poole. R. K., Lloyd, D., Chance, B. (1980). *Biophys. J.* **29**, 1-12.

64. Respiratory oscillations and heat evolution in synchronous cultures of *Candida utilis.* Kader, J., Lloyd, D. (1979). *J. Gen. Microbiol.* **114**, 455-461.

65. Perturbation of respiration in *Candida utilis:* Induction of metabolic oscillations. Lloyd, D., Ball, J. (1979). *J. Gen. Microbiol.* **114**, 463-466.

66. Oscillations in energy-yielding and energy-requiring reactions during the growth of synchronous cultures of protozoa and yeast lie in the epigenetic time domain. Lloyd, D., Edwards, S.W. *Physicochemical Oscillators Meeting, Aachen,* September, 1979.

67. Oscillations in protein and RNA content during synchronous growth of *Acanthamoeba castellanii.* Edwards, S.W., Lloyd, D. (1980). *FEBS Letts.* **109**, 21-26.

68. Carbon monoxide-reacting haemoproteins in the mitochondrial fraction of *Acanthamoeba castellanii.* Edwards, S.W., Lloyd, D. (1980). *Biochem. J.* **186**, 669-678.

69. Effects of glucose repression and anaerobiosis on the activities and subcellular distribution of tricarboxylic acid cycle and associated enzymes in *Saccharomyces carlsbergensis.* Wales, D.S., Cartledge, T.G., Lloyd, D. (1980). *J. Gen. Microbiol.* **116**, 93-98.

70. Effect of inhibitors on the oxygen kinetics of terminal oxidases of *Tetrahymena pyriformis* ST. Lloyd, D., Kristensen, B., Degn, H. (1980). *J. Gen. Microbiol.* **121**, 117-125.

71. Respiration of *Tritrichomonas foetus:* components detected in hydrogenosomes and in intact cells by electron paramagnetic resonance spectrometry. T. Ohnishi, D. Lloyd, D. G. Lindmark & M. Muller. *Molec. Biochem. Parasitol.* **2**, 39-50 (1980).

72. Effects of inhibitors on mitochondrial adenosine triphosphatase of *Crithidia fasciculata:* an unusual pattern of specificities. N. Yarlett & D. Lloyd. *Molec. Biochem. Parasitol.* **3**, 13-17 (1981).

73. Carbon monoxide and oxygen-reacting haemoproteins in the mitochondrial fraction from the soil amoeba *Acanthamoeba castellanii.* D. Lloyd, S. W. Edwards & B. Chance. *Biochem. J.* **200**, 337-342 (1981).

74. Oscillatory accumulation of catalase during the cell cycle of *Acanthamoeba castellanii.* S. W. Edwards, J. B. Evans & D. Lloyd. *J. Gen. Microbiol.* **125**, 459-462 (1981).

75. Respiration of *Tritrichomonas foetus.* D. Lloyd, T. Ohnishi, D. G. Lindmark & M. Muller. Wiadomosci Parazytologicne **29**, 37-39 (1982).

76. A membrane covered photobacterium probe for O_2 measurements in the manomolar range. D. Lloyd, K. James, J. Williams & N. Williams. *Analyt. Biochem.* **116**, 17-21 (1981).

77. Oxidative detoxification of hydrogen sulphide detected by mass spectrometry in the soil amoeba *Acanthamoeba castellanii.* D. Lloyd, B. Kristensen & H. Degn. *J. Gen. Microbiol.* **126**, 167-170 (1981).

78. The effects of cyanide, azide, carbon monoxide and salicylhydroxamic acid on whole cell respiration of *Acanthamoeba castellanii.* D. Lloyd, B. Kristensen & H. Degn. *J. Gen. Microbiol.* **128**, 185-188 (1981).

79. Hydrogenosomes in the rumen protozoon *Dasytricha ruminantium* Schuberg. N. Yarlett, A. C. Hann, D. Lloyd & A. G. Williams. *Biochem. J.* **200**, 365-372 (1981)

80. Effects of inhibitors on mitochondrial ATPase of *Tetrahymena pyriformis* ST. M.D. Unitt & D. Lloyd. *J. Gen. Microbiol.* **126**, 261-266 (1981).

81. Oscillatory accumulation of total cellular protein in synchronous cultures of *Candida utilis.* D. Lloyd, S. W. Edwards & J. L. Williams. *FEMS Microbiol.* Lett. **12**, 295-298 (1981).

82. The mitochondrial adenosine triphosphatase of *Acanthamoeba castellanii.* Partial characterisation and changes in activity during exponential growth. S. W. Edwards, J. B. Evans & D. Lloyd. *Comp. Biochem. Physiol.* **71B**, 495-500 (1982).

83. Temperature-compensated oscillations in respiration and cellular protein content in synchronous cultures of *Acanthamoeba castellanii.* D. Lloyd, S. W. Edwards & J. C. Fry. *Proc. Natl. Acad. Sci. USA* **79**, 3785-3788 (1982).

84. Oxygen affinities of *Tritrichomonas foetus, Dasytricha ruminantium* and two aerobic protozoa determined by bacterial bioluminescence. D. Lloyd, J. L. Williams, N. Yarlett & A. G. Williams. *J. Gen. Microbiol.* **128**, 1019-1022 (1982).

85. The mitochondrial adenosine triphosphatase of *Acanthamoeba castellanii:* oscillatory accumulation of enzyme activity, enzyme protein and F_1-inhibitor during the cell cycle. S. W. Edwards, J. B. Evans, J. L. Williams & D. Lloyd. *Biochem. J.* **202**, 453-458 (1982).

86. Cytochrome a_{620} of *Tetrahymena pyriformis:* reactions with carbon monoxide and oxygen at sub-zero temperatures and photochemical action spectra. D. Lloyd, R. I. Scott, S. W. Edwards, C. Edwards & B. Chance. *Biochem. J.* **20**, 367-372 (1982).

87. Mitochondrial cytochromes of *Acanthamoeba castellanii:* oscillatory accumulation of haemoproteins, immunological determinants and activity during the cell cycle. D. Lloyd, S. W. Edwards, J. L. Williams & J. B. Evans. *FEMS Microbiol. Lett.* **16** 307-312 (1983).

88. Photochemical action spectra of CO-liganded terminal oxidases using a liquid dye laser. D. Lloyd & R. I. Scott. *Analyt. Biochem.* **128**, 21-25 (1983).

89. Respiration of the rumen ciliate *Dasytricha ruminantium* Schuberg. N. Yarlett, D. Lloyd & A. G. Williams. *Biochem. J.* **206**, 259-266 (1982).

90. Adaptation of the respiratory system of *Acanthamoeba castellanii* to anaerobiosis. D. Lloyd, R. Protheroe, T. N. Williams & J. L. Williams. *FEMS Microbiol. Lett.* **17**, 143-146 (1983).

91. Oxygen affinity of the respiratory chain of *Acanthamoeba castellanii.* D. Lloyd, H. Mellor & J. L. Williams. *Biochem. J.* **214**, 47-51 (1983).

92. Terminal oxidase of *Crithidia fasciculata:* reactions with carbon monoxide and oxygen at sub-zero temperatures and photochemical action spectra. R. I. Scott, S. W. Edwards, B. Chance & D. Lloyd. *J. Gen. Microbiol.* **129**, 1983-1989 (1983).

93. Hydrogenosomes in a mixed isolate of *Isotricha prostoma* and *Isotricha intestinalis* ovine rumen contents. N. Yarlett, A. C. Hann, D. Lloyd & A. G. Williams. *Comp. Biochem. Physiol.* **74B**, 357-364 (1983).

94. Similarities between rumen ciliants and Trichomonads: both possess hydroglucosomes. 5th Meet Int Sci Evol Protistol. Prostologica **19**, 465 (1983).

95. Restriction enzyme analysis of mitochondrial DNA of members of the genus *Acanthamoeba* as an aid in taxonomy. M. Costas, S. W. Edwards, D. Lloyd, A. J. Griffiths & G. Turner. *FEMS Microbiol. Lett.* **17**, 231-234 (1983).

96. Glycolysis and respiration in yeasts: The Pasteur effect studied by mass spectrometry. D. Lloyd, B. Kristensen & H. Degn. *Biochem. J.* **212**, 749-754 (1983).

97. Glycolysis and respiration in yeasts: the effect of NH_4^+ in yeasts studied by mass spectrometry. D. Lloyd, B. Kristensen & H. Degn. *J. Gen. Microbiol.* **129**, 2125-2127 (1983).

98. Adaptation of terminal respiration pathways of *Tetrahymena pyriformis* ST to growth with added iron or Carbonyl cyanide *m*-chlorophenylhydrazone. M. B. Unitt, R. I. Scott & D. Lloyd. *Comp. Biochem. & Physiol.* **74B**, 567-571 (1983).

99. The presence of O_2 in rumen liquor and its effects on methanogenesis. R. I. Scott, N. Yarlett, K. Hillman, T. N. Williams, A. G. Williams & D. Lloyd. *J. App. Bacteriol.* **55**, 143-149 (1983).

100. A note on the effects of hydrogen production by the rumen protozoon *Dasytricha ruminantium* Schuberg. N. Yarlett, R. I. Scott, A. G. Williams & D. Lloyd. *J. Appl. Bacteriol.* **55**, 359-361 (1983).

101. Subcellular fractionation of *Candida stellatoidea* after growth with glucose or *n*-hexadecane. R. Jenkins, T. G. Cartledge & D. Lloyd. *J. Gen. Microbiol.* **129**, 1171-1185 (1983).

102. Identification of cytochromes *o* and a_3 as functional terminal oxidases in the thermophilic bacterium PS3. Poole, R. K., Scott, R. I., Baines, B. S., Salmon, I. & Lloyd, D. *FEBS Microbiol. Lett.* **150**, 281-285 (1983).

103. Photochemical action spectra indicate that cytochrome aa_3 is the predominant haemoprotein terminal oxidase in *Acanthamoeba castellanii.* Scott, R. I. & Lloyd, D. *Biochem. J.* **210**, 721-725 (1983).

104. Direct measurement of methanogenesis in anaerobic digesters by membrane inlet mass spectrometry. Scott, R. I., Williams, T. N., Whitmore, T. N. & Lloyd, D. *Europ. J. Applied Microbiol. & Biotechnol.* **18**, 236-241 (1983).

105. Membrane inlet mass spectrometry - Measurement of dissolved gases in fermentation liquids. Lloyd, D., Scott, R. I. & Williams, T. N. *Trends in Biotechnol.* **1**, 60-63 (1983).

106. Direct measurement of dissolved gases in microbiological systems using membrane inlet mass spectrometry. Lloyd, D. & Scott, R. I. *J. Microbiol. Methods* **1**, 313-320 (1983).

107. Adaptive changes in yeast membranes: catabolite repression and oxygen. Lloyd, D., Cartledge, T. G. & Jenkins, R. O. *Biochem. Soc. Trans.* **11**, 339-340 (1983).

108. Oxygen sensitivity of methanogenesis in rumen and anaerobic digester populations using mass spectrometry. Scott, R. I., Williams, T. N. & Lloyd, D. *Biotechnol. Lett.* **5**, 375-380 (1983).

109. Subcellular fractionation of *Candida boidinii* after growth on glucose or methanol. Jenkins, R. O., Cartledge, T. G. & Lloyd, D. *J. Gen. Microbiol.* **131**, 335-344 (1985).

110. Hydrogenosomes in known species of rumen entodiniomorphid protozoa. Yarlett, N., Coleman, G. S., Williams, A. G. & Lloyd, D. **21**, 15-19 (1984).

111. Decrease in apparent Km for oxygen after stimulation of respiration of rat polymorphonuclear leucocytes. Edwards, S. W., Hallett, M. B., Lloyd, D. & Campbell, A. K. *FEBS Microbiol. Lett.* **161**, 60-64 (1983).

112. Metronidazole inhibition of hydrogen production *in vivo* in drug-sensitive and resistant strains of *Trichomonas vaginalis.* Lloyd, D. & Kristensen, B. *J. Gen. Microbiol.* **131**, 849-853 (1985).

113. Metronidazole radical anion generation *in vivo* in *Trichomonas vaginalis:* oxygen quenching is enhanced in a drug-resistant strain. Lloyd, D. & Pedersen, J. *J. Gen. Microbiol.* **131**, 87-92 (1985).

114. Respiratory adaptation of anaerobically grown *Saccharomyces uvarum:* changes in distribution of enzymes. Jenkins, R., Cartledge, T. G. & Lloyd, D. *J. Gen. Microbiol.* **130**, 2809-2816 (1984).

115. Pathogen survival during anaerobic digestions: fatty acids inhibit the anaerobic growth of *Escherichia coli.* P. Abdul & D. Lloyd. *Biotech. Lett.* **85**, 125-128 (1985).

116. Butyrate formation from glucose by the rumen protozoon *Dasytricha ruminantium.* N. Yarlett, D. Lloyd & A. G. Williams. *Biochem. J.* **228**, 187-192 (1985).

117. Oxygen affinities of the bioluminescence systems of various species of luminous bacteria. D. Lloyd, C. J. James & J. Woodland Hastings. *J. Gen. Microbiol.* **131**, 2137-2140 (1985).

118. The survival of antibiotic resistant and sensitive *E.coli* strains during anaerobic digestion. P. Abdul & D. Lloyd. *Eur. J. App. Microbiol. & Biotechnol.* **22**, 373-377 (1985).

119. Comparative studies of methanogenesis in thermophilic and mesophilic digesters using membrane inlet mass spectrometry. T. N. Whitmore, M. Lazzari & D. Lloyd. *Biotechnol. Lett.* **7**, 283-288 (1985).

120. Dispersive X-ray microanalysis of membrane associated inclusions in hydrogenosomes isolated from *Trichomonas vaginalis.* A. Chapman, A. O. Hann, D. Linstead & D. Lloyd. *J. Gen. Microbiol.* **131**, 2933-2939 (1985).

121. The generation of metronidazole radicals in hydrogenosomes isolated from *Trichomonas vaginalis*. A. Chapman, R. Cammack, D. Linstead & D. Lloyd. *J. Gen. Microbiol.* **131**, 2141-2144 (1985).

122. Degradative inactivation of the proxisomal enzyme alcohol oxidase, during adaptation of methanol-grown *Candida boidinii.* D. J. Hill, A. O. Hann & D. Lloyd. *Biochem. J.* **232**, 743-750 (1985).

123. Salt, pH and temperature dependencies of growth and bioluminescence of three species of luminous bacteria analysed on gradient plates. P. Waters & D. Lloyd. *J. Gen. Microbiol.* **131**, 2865-2689 (1985).

124. Measurement of dissolved gas concentrations in ovine rumen liquor *in situ* using a portable quadrupole mass spectrometer. K. Hillman, D. Lloyd & A. G. Williams. *Current Microbiol.* **12**, 335-340 (1985).

125. ^{13}C NMR reveals glycerol as an unexpected major metabolite in the protozoon parasite *Trichomonas vaginalis.* A. Chapman, D. Linstead, D. Lloyd & A. J. Williams. *FEBS Letts.* **191**, 287-292 (1985).

126. Inhibition of H_2 production in drug-resistant and susceptible *Trichomonas vaginalis* strains by a range of nitroimidazole derivatives. D. Lloyd, N. Yarlett & N. C. Yarlett. *Biochem. Pharmacol.* **35**, 61-64 (1986).

127. Respiration of *Trichomonas vaginalis.* Components detected by electron paramagnetic resonance spectroscopy. A. Chapman, R. Cammack, D. Linstead & D. Lloyd. *Eur. J. Biochem.* **156**, 193-198 (1986).

128. Aerobic bacterial denitrification: the rule rather than the exception. D. Lloyd, L. Boddy & K. J. P. Davies. *FEMS Microbiol.* Ecology **45**, 185-190 (1987).

129. Metronidazole resistant clinical isolates of *Trichomonas vaginalis* have lowered O_2 affinities. N. Yarlett, N. C. Yarlett & D. Lloyd. *Molec. Biochem. Parasitol.* **19**, 111-116 (1986).

130. Changes in proteinase activities and subcellular distribution during degradative inactivation of alcohol oxidase in *Candida boidinii.* D. J. Hill, O. Jenkins, T. G. Cartledge & D. Lloyd. *Biochem. J.* **238**, 255-261 (1986).

131. Host defence in continuous ambulatory peritoneal dialysis: the effect of the dialysate on phagocyte function. H. Alobaidi, B. A. Coles, M. Davies & D. Lloyd. *Nephrol. Dial. Transplant* **1**, 16-21 (1986).

132. Ferredoxin-dependent reduction of nitroimidazole derivatives in drug-resistant and susceptible strains of *Trichomonas vaginalis.* N. Yarlett, N. C. Yarlett and D. Lloyd. *Biochem. Pharmacol.* **35**, 1703-1708 (1986).

133. Hydrogen-dependent control of the continuous anaerobic digestion process. T. N. Whitmore, G. Jones & D. Lloyd. *Appl. Microbiol. Biotechnol.* **26**, 383-388 (1987).

134. Mass spectrometry as an ecological tool for *in situ* measurements of dissolved gases in sediment systems. D. Lloyd, K. J. P. Davies & L. Boddy. *FEMS Microbiol. Ecol.* **38**, 11-17 (1986).

135. Formation of myeloperoxidase compound II during aerobic stimulation of rat neutrophils. S. W. Edwards & D. Lloyd. *Bioscience Reports* **6**, 275-282 (1986).

136. ESR studies of nitro-amino and oxygen radicals in hydrogenosomes from *Trichomonas vaginalis.* N. Yarlett, C. Rowlands, N. C. Yarlett, J. C. Evans & D. Lloyd. *Mol. & Biochem. Parasitol.* **24**, 255-261 (1987).

137. Reduction of nitridazole by metronidazole resistant and susceptible strains of *Trichomonas vaginalis.* N. Yarlett, C. C. Rowlands, N. C. Yarlett, J. C. Evans & D. Lloyd. *Parasitology* **94**, 93-99 (1987).

138. Methanogenesis from methanol in *Methanosarcina barkeri* studied using membrane inlet mass spectrometry. G. Ranalli, T. N. Whitmore & D. Lloyd. *FEMS Microbiol. Lett.* **35**, 119-123 (1986).

139. Effects of inhibitors on the O_2 kinetics of the parasitic nematode *Nippostrongylus brasiliensis.* T. A. Paget, M. Fry & D. Lloyd. *Mol. Biochem. Parasitol.* **22**, 125-133 (1987).

140. Cryopreservation of the anaerobic fungus *Neocallimastix patriciarum.* N. C. Yarlett, N. Yarlett, C. G. Orpin & D. Lloyd. *Lett. Appl. Microbiol.* **3**, 1-3 (1986).

141. Metronidazole resistant clinical isolates of *Trichomonas vaginalis* maintain low intracellular metronidazole radical anion levels as a consequence of defective O_2 scavenging. D. Lloyd, N. Yarlett, N. C. Yarlett, J. Z. Pedersen & B. Kristensen. *Acta Universitatis Carolinae Biologica* **30**, 521-528 (1988).

142. Mass spectrometric control of the thermophilic anaerobic digestion process based on levels of dissolved hydrogen. T. N. Whitmore & D. Lloyd. *Biotechnology Letters* **8**, 203-208 (1986).

143. Temperature-compensated ultradian rhythms in lower eukaryotes: periodic turnover coupled to a timer for cell division. D. Lloyd & S. W. Edwards. *J. Interdisc. Cycle Res.* **17**, 321-326 (1986).

144. H_2O_2 production in uncoupled mitochondria of the parasitic nematode worm *Nippostrongylus brasiliensis.* T. A. Paget, M. Fry & D. Lloyd. *Biochem. J.* **243**, 589-595 (1987).

145. CO-reacting haemoproteins of neutrophils: evidence for cytochrome *b*-245 and myeloperoxidase as potential oxidases during the respiratory burst. S. W. Edwards & D. Lloyd. *Biosci. Reports* **7**, 193-199 (1987).

146. Respiration of the hydrogenosome-containing fungus *Neocalimastix patriciarum.* N. Yarlett, C. Rowlands, N. C. Yarlett, J. C. Evans & D. Lloyd. *Arch. Microbiol.* **148**, 25-28 (1987).

147. Pyruvate metabolism by trichomonads. A. Chapman, D. J. Linstead, D. Lloyd & J. Williams. *Biochem. Soc. Trans.* **14**, 1274 (1986).

148. The effects of O_2 on fermentation in *Tritrichomonas foetus* KV1 and its variant 1MR-100 with defective hydrogenosomes. D. Lloyd, C. J. James, A. L. Lloyd, N. Yarlett & N. C. Yarlett. *J. Gen. Microbiol.* **133**, 1181-1187 (1987).

149. The Pasteur Effect in Yeast: mass spectrometric monitoring of O_2 uptake and CO_2 and ethanol production. D. Lloyd & C. J. James. *FEMS Microbiol. Lett.* **42**, 27-31 (1987).

150. Interactions between the methanogen *Methanosarcina barkeri* and ciliate protozoa. K. Hillman, D. Lloyd & A. G. Williams. *Lett. Appl. Microbiol.* **7**, 49-53 (1988).

151. The effect of detergent on methanogenesis is by *Methanosarcina bakeri.* E. F. Khalil, T. N. Whitmore, H. Gamel-El-Din, A. El-Bassel & D. Lloyd. *FEMS Microbiol. Lett.* **57**, 313-316 (1989).

152. The effect of dialysate on peritoneal phagocyte oxidative metabolism. N. Topley, H. M. M. Alobaidi, M. Davies, G. A. Coles. J. D. Williams & D. Lloyd. *Kidney International* **34**, 404-411 (1988).

153. Hydrogen-dependent control of the continuous thermophilic anaerobic digestion process using membrane inlet mass spectrometry. D. Lloyd, T. N. Whitmore. *Lett. Appl. Microbiol.* **6**, 5-10 (1987).

154. The influence of oxygen and organic hydrogen acceptors on glycolytic CO_2 production in *Brettanomyces anomalous.* D. M. Gaunt, H. Degn, D. Lloyd. *Yeast* **4**, 249-255 (1988).

155. The relationship between superoxide generation cytochrome *b* and oxygen in activated neutrophils. S. W. Edwards and D. Lloyd. *FEBS Letts.* **227**, 39-42 (1988).

156. The effects of detergents on anaerobic digestion. E. F. Khalil, T. N. Whitmore, H. Gamal-el-Din, A. El-Bassel, D. Lloyd. *Appl. Microbiol. Biotechnol.* **29**, 517-522 (1988).

157. The O_2 dependence of respiration of H_2O_2 production in the parasitic nematode *Ascaridia galli.* T. A. Paget, N. Fry and D. Lloyd. *Biochem. J.* **256**, 633-639 (1988).

158. Respiration in the cyst and trophozoite forms of *Giardia muris.* T. A. Paget, E. L. Jarroll, P. Manning, D. G. Lindmark, D. Lloyd. *J. Gen. Microbiol.* **135**, 145-154 (1989).

159. Haemoprotein oxidases in the nematodes *Nippostrongylus brasiliensis* and *Ascaridia galli.* T. A. Paget, M. Fry and D. Lloyd. *Biochem. J.* **256**, 295-298 (1988).

160. Respiration and H_2O_2 production in *Brugia pahangai.* T. A. Paget, A. H. W. Mendes, D. Lloyd. *Int. J. Parasitol.* **19**, 337-343 (1989).

161. Bioenergetic consequences of protein overexpression in *Saccharomyces cerevisiae.* C. Gopal, D. Broad, D. Lloyd. *J. Appl. Microbiol. Biotech.* **30**, 160-165 (1989).

162. Aerobic denitrification in *Paracoccus denitrificans* and *Pseudomonas aeruginosa.* K. J. P. Davies, D. Lloyd & L. Boddy. *J. Gen. Microbiol.* **135**, 2445-2451 (1989).

163. Quantized cell cycle times: interaction between a relaxation oscillator and ultradian clock pulses. D. Lloyd & E. I. Volkov, *Biosystems* **23**, 305-310 (1990).

164. Oxygen consumption by rumen microorganisms: protozoal and bacterial contributions. J. E. Ellis, A. G. Williams & D. Lloyd. *Appl. Environ. Microbiol.* **55**, 2583-2587 (1989).

165. Simultaneous operation of ultradian and circadian rhythms in *Chlamydomonas reinhardii.* H. A. Jenkins, A. J. Griffiths & D. Lloyd. *J. Interdisc. Cycle Res.* **20**, 257-264 (1989).

166. Formate and glucose stimulation of methane and hydrogen production in rumen liquor. J. E. Ellis, A. G. Williams & D. Lloyd. *Current Microbiol.* **20**, 251-254 (1990).

167. Selection-synchronized *Chlamydomonas reinhardii* display ultradian but not circadian rhythms. H. A. Jenkins, A. J. Griffiths & D. Lloyd. *J. Interdisc. Cycle Res.* **21**, 75-80 (1990).

168. Effect of growth temperature on fatty acid biosynthesis in *Acanthamoeba castellanii.* A. L. Jones, N. L. Pruitt, D. Lloyd & J. L. Harwood. *Trans. Biochem. Soc.* **18**, 627.

169. *Giardia lamblia* produces alanine anaerobically but not in the presence of oxygen. T. A. Paget, M. H. Raynor, D. W. E. Shipp & D. Lloyd. *Molecular. Biochem. Parasitology* **42**, 63-68 (1990).

170. *Trichomonas vaginalis* requires traces of oxygen and high concentrations of carbon dioxide for optimal growth. T. A. Paget & D. Lloyd (1990). *Molec. Biochem. Parasitol.* **41**, 65-72.

171. *Nippostrongylus brasiliensis* and *Ascaridia galli:* characterisation of peroxisomes. T. A. Paget, M. Fry & D. Lloyd (1990). *Experimental Parasitology* **71**, 236-240.

172. The use of a novel motility assay for the isolation of bioactive peptides from the free-living nematode *Panagrellus redivivus.* *Comp. Biochem. Physiol.* **95B**, 335-339 (1990).

173. Growth of *Azotobacter vinelandii:* correlation of Coulter cell size, flow cytometric parameters, and ultrastructure. R. Allman, A. C. Hann, A. P. Phillips, K. L. Martin & D. Lloyd. *Flow Cytometry* **11**, 822-831 (1990).

174. Influence of CO_2 and low concentrations of O_2 on fermentative metabolism of the ruminal ciliate *Polyplastron multivesciculatum.* J. E. Ellis, P. S. McIntyre, M. Saleh, A. G. Williams & D. Lloyd. *Appl. Environ. Microbiol.* **57**, 1400-1407 (1991).

175. Influence of CO_2 and low concentrations of O_2 on fermentative metabolism of the rumen ciliate *Dasytricha ruminantium.* J. E. Ellis, P. S. McIntyre, M. Saleh, A. G. Williams & D. Lloyd. *J. Gen. Microbiol.* **137**, 1409-1417 (1991).

176. Effects of pesticides on anaerobic digestion processes. E. F. Khalil, T. N. Whitmore, H. Gamel-El Din, A. El-Bassel & D. Lloyd. *Environ. Technol.* **12**, 471-475 (1991).

177. Characterisation of bacteria using multiparameter flow cytometry. R. Allman, A. C. Hann, R. Manchee & D. Lloyd. *J. Appl. Bact.* **73**, 438-444.

178. The evaluation of matrices in rumen simulation technique for the maintenance of protozoa. K. Hillman, A. G. Williams & D. Lloyd. *Lett. Appl. Microbiol.* **12**, 129-132 (1991).

179. The influence of headspace gas composition on the production of VFA by rumen holotrich ciliate protozoa. K. Hillman, A. G. Williams & D. Lloyd. *Lett. Appl. Microbiol.* **13**, 11-15 (1991).

180. Formate utilization by members of the Genus Methanobacterium. J. Benstead, D. B. Archer & D. Lloyd. *Arch. Microbiol.* **156**, 34-37 (1991).

181. The parasitic flagellates *Trichomonas vaginalis* and *Tritrichomonas foetus* produce indole and dimethyldisulphide: direct characterization by membrane inlet tandem mass spectrometry. D. Lloyd, F. R. Lauritsen & H. Degn. *J. Gen. Microbiol.* **137**, 1743-47 (1991).

182. Identification of dissolved volatile metabolites in microbial cultures by membrane inlet tandem mass spectrometry. F. R. Lauritsen, D. Lloyd, S. Bohátka, L. T. Nielsen & H. Degn. *Biological Mass Spectrometry* **60**, 253-258 (1991).

183. Enzyme activity in organic solvent as a function of water activity determined by membrane inlet mass spectrometry. H. Degn, S. Bohátka & D. Lloyd. *Biotechnology Techniques* **6**, 161-164 (1992).

184. The influence of ruminal concentrations of O_2 on fermentative metabolism of the rumen entodiniomorphid ciliate, *Eudiplodinium maggii.* J. E. Ellis, P. S. McIntyre, M. Saleh, A. G. Williams & D. Lloyd. *Current Microbiology* **23**, 245-251 (1991).

185. The effects of O_2 on fermentation in the intestinal parasite *Giardia lamblia.* T. A. Paget, M. L. Kelly, E. L. Jarroll, D. G. Lindmark & D. Lloyd. *Mol. Biochem. Parasitol.* **57**, 65-72 (1992).

186. Effects of alcohols on the respiration and fermentation of aerated suspension of Baker's Yeast. H. N. Carlsen, H. Degn & D. Lloyd. *J. Gen. Microbiol.* **137**, 2879-2883 (1991).

187. Temperature induced changes in the synthesis of unsaturated fatty acids by *Acanthamoeba castellanii.* A. L. Jones, N. L. Pruitt, D. Lloyd & J. L. Harwood. *J. Protozool.* **38**, 532-536 (1991).

188. Mutations in phosphofructokinases alter the control characteristics of glycolysis *in vivo* in *Saccharomyces cerevisiae.* D. Lloyd, C. J. James & P. K. Maitra. *Yeast* **8**, 291-301 (1992).

189. Lipid changes in individual membranes of *Acanthamoeba castellanii* during temperature adaptation. *Biochem. Soc. Trans.* **19**, 318S (1991).

190. Induction of a 12-desaturase activity during temperature adaptation in *Acanthamoeba castellanii.* A. L. Jones, J. L. Harwood & D. Lloyd. *Biochem. Soc. Transactions* **20**, 170S (1992).

191. The cell division cycle: a physiologically plausible dynamic model can exhibit chaotic solutions. D. Lloyd, A. L. Lloyd, L. F. Olsen. *BioSystems* **27**, 17-24 (1992).

192. The ultradian clock of *Schizosaccharomyces pombe:* environmental stability but genetic variability. F. Kippert & D. Lloyd. *J. Interdisc. Cycle Res.* **22**, 138-139 (1991).

193. Influence of oxygen on the fermentative metabolism of metronidazole-sensitive and resistant strains of *Trichomonas vaginalis.* J. E. Ellis, D. Cole and D. Lloyd. *Biochem. Molec. Parasitol.* **56**, 79-88 (1992).

194. Oxygen affinities of metronidazole-resistant and sensitive stocks of Giardia intestinalis. J. E. Ellis, J. M. Wingfield, D. Cole, P. F. L. Boreham & D. Lloyd. *Int. J. Parasitol.* **23**, 35-39 (1993).

195. Temperature-induced membrane lipid adaptation in *Acanthamoeba castellanii.* A. L. Jones, A. C. Hann, J. L. Harwood and D. Lloyd. *Biochem. J.* **290**, 273-278 (1993).

196. Rapid method for monitoring methanogenic activities in mixed cell culture; effects of inhibitory compounds. J. Benstead, D. B. Archer and D. Lloyd. *Biotechnol. Techniques* **7**, 31-36.

197. Combined ^{13}C-NMR and mass spectrometry for non-invasive monitoring of metabolism. D. Lloyd, C. J. James, A. Chapman & J. R. Dickinson. *Biotechnol. Techniques* **6**, 81-86 (1993).

198. Extinction of dinosaurs: a possible novel cause. S. Ramadurai, D. Lloyd, M. Wallis and N. C. Wickramasinghe. *Adv. Space Science* **15**, 139-146 (1995).

199. Hypothesis: the central oscillator of the circadian clock is a controlled chaotic attractor. A. L. Lloyd and D. Lloyd. *BioSystems* **29**, 77-85 (1993).

200. Effects of growth with ethanol on fermentation and membrane fluidity of *Saccharomyces cerevisiae.* D. Lloyd, S. Morrell, H. N. Carlsen, H. Degn, P. E. James and C. C. Rowlands. *Yeast* **9**, 825-833 (1993).

201. An inexpensive infra red growth sensor array for detection of bacterial antibiotic susceptibility. D. J. Mason, A. L. Lloyd and D. Lloyd. *FEMS Microbiol. Lett.* **111**, 251-254 (1993).

202. Electron transport components of the parasitic protozoon *Giardia lamblia.* J. E. Ellis, R. Williams, D. Cole, R. Cammack and D. Lloyd. *FEBS Lett.* **325**, 196-200 (1993).

203. Rapid and direct monitoring of volatile fermentation products in the fungus *Bjerkandera adusta* by membrane inlet mass spectrometry. F. R. Lauritsen, T. Kotiaho and D. Lloyd. *Biolog. Mass Spectrom.* **22**, 585-589 (1993).

204. Direct mass spectrometric measurement of gases in peat cores. J. Benstead and D. Lloyd. *FEMS Microbiol. Ecol.* **13**, 233-240 (1994).

205. Rapid induction of microsomal 12 (-6) desaturase in chilled *Acanthamoeba castellanii.* A. L. Jones, D. Lloyd and J. Harwood. *Biochem. J.* **296**, 183-188 (1993).

206. Growth-dependent changes of 12-desaturase activity and unsaturation of membrane fatty acids in *Acanthamoeba castellanii.* S. V. Avery, D. Lloyd and J. Harwood. *Biochem. Soc. Transactions* **22**, 200S (1994).

207. A controlled chaotic attractor could provide a tuneable multioscillator for circadian rhythms. D. Lloyd and A. L. Lloyd. *J. Interdiscip. Cycle Res.* **24**, 231-232 (1994).

208. Chaos: its detection and significance in biology. A. L. Lloyd and D. Lloyd. *Biol. Rhythms Res.* 26, 233-252 (1994).

209. Determination of the viability of *Trichomonas vaginalis* using flow cytometry. M. Humphreys, R. Allman and D. Lloyd. *Cytometry* **15**, 343-348 (1994).

210. Low-temperature induced adaptations in lipid metabolism and physiological function in *Acanthamoeba castellanii* cultures of different ages. S. V. Avery, J. L. Harwood and D. Lloyd. *Biochem. Soc. Trans.* **22**, 257S (1994).

211. Studies of the bacterial endosymbionts of "anaerobic" protozoa using fluorescently-labelled rRNA-targetted oligonucleotide probes. D. Lloyd, J. Ralphs, L. Durrant, A. G. Williams and R. Amann. *Biochem. Soc. Trans.* **22**, 323S (1994).

212. Membrane potential studies of *Saccharomyces cerevisiae* during cider fermentation. M. G. Dinsdale, D. Lloyd and G. Jarvis. *Biochem. Soc. Trans.* **22**, 325S (1994).

213. Hydrogenosomes in Trichomonads are Ca^{2+} stores and have a transmembrane electrochemical potential. M. Humphreys, J. Ralphs, L. Durrant and D. Lloyd. *Biochem. Soc. Trans.* **22**, 324S (1994).

214. Low temperature induced adaptations in lipid metabolism and physiological function in *Acanthamoeba castellanii* cultures of different ages. A. V. Avery, J. L. Harwood and D. Lloyd. *Biochem. Soc. Trans.* **22**, 257S (1994).

215. Hypothesis: A controlled chaotic attractor times intracellular dynamics. D. Lloyd and A. L. Lloyd. *Biochem. Soc. Trans.* **22**, 322S (1994).

216. Membrane potential studies of *S.cerevisiae* during cider fermentation. M. G. Dinsdale, D. Lloyd and B. Jarvis. *Biochem. Soc. Trans.* **22**, 325S (1994).

217. Changes in membrane fatty acid composition and 12-desaturase activity during growth of *Acanthamoeba castellanii* in batch culture. S. V. Avery, D. Lloyd and J. L. Harwood. *J. Eukaryotic Microbiology* **41**, 396-401 (1994).

218. Effects of oxygen, pH and nitrate concentration on denitrification by Pseudomonas species. K. L. Thomas, D. Lloyd and L. Boddy. *FEMS Microbiol. Lett.* **118**, 181-186 (1994).

219. Polypeptides of hydrogenosome-enriched fractions for rumen ciliate protozoa and trichomonads: immunological studies. J. E. Ellis, D. G. Lindmark, A. G. Williams and D. Lloyd. *FEMS Microbiol. Lett.* **117**, 211-216 (1994).

220. Low temperature-induced adaptations in fatty acid metabolism of *Acanthamoeba castellanii* cultures of different ages: relationship to changes in cell division, oxygen uptake and phagocytic activity. S. V. Avery, J. L. Harwood and D. Lloyd. *Microbiology* **140**, 2423-2431 (1994).

221. Oxygen and life on Europa. N. C. Wickramasinghe and D. Lloyd. *The Observatory* (1996).

222. Rapid estimation of bacterial antibiotic susceptibility with flow cytometry. D. J. Mason, R. Allman, J. M. Stark and D. Lloyd. *J. Microscopy* **176**, 8-16 (1994).

223. The fluorochrome aniline blue specifically stains the septum of both live and fixed *Schizosaccharomyces pombe.* F. Kippert and D. Lloyd. *FEMS Microbiol. Lett.* **132**, 215-219 (1995).

224. Measurement of denitrification in estuarine sediment using membrane inlet mass spectrometry. K. L. Thomas and D. Lloyd. *FEMS Microbiol. Ecol.* **16**, 103-114 (1995).

225. Antioxidant defenses in the microaerophilic protozoan *Trichomonas vaginalis:* comparison of metronidazole-resistant and sensitive strains. J. E. Ellis, N. Yarlett, D. Cole, M. J. Humphreys and D. Lloyd. *Microbiology* **140**, 2489-2494 (1994).

226. The ability of membrane potential dyes and calcafluor white to distinguish between viable and non-viable bacteria. D. J. Mason, R. Lopez-Amoros, R. Allman, M. Stark and D. Lloyd. *J. Appl. Bacteriol.* **78**, 309-315 (1995).

227. A temperature-compensated ultradian clock ticks in *Schizosaccharomyces pombe.* F. Kippert and D. Lloyd. *Microbiology* **141**, 883-890 (1995).

228. A controlled chaotic attractor could provide a tuneable oscillator for circadian clocks. D. Lloyd and A. L. Lloyd. *Biol. Rhythm Res.* **25**, 235-240 (1994).

229. Hydrogenosomes in trichomonads are calcium stores and have a transmembrane electrochemical gradient. M. Humphreys, J. Ralphs, L. Durrant and D. Lloyd. *Eur. J. Protistol*. 32, 523-531

230. Use of two oxonols and a fluorescent tetrazolium dye to monitor starvation of *Escherichia coli* in seawater by flow cytometry. R. Lopez-Amoros, D. Mason and D. Lloyd. *J. Microbiol. Meth.* **22**, 165-176 (1995).

231. Quantification and characterization of phagocytosis in the soil amoeba *Acanthamoeba castellanii by* flow cytometry. S. Avery, J. L. Harwood and D. Lloyd. *Appl. Environ. Microbiol.* **61**, 1124-1132 (1995).

232. Postprandial variations in endogenous metabolic activities of ovine rumen ciliate protozoa. K. Hillman, A. G. Williams and D. Lloyd (1995). *Animal Feed Science and Technology* **52**, 237-247 (1995).

233. Measurement of trace gas fluxes using tunable diode laser spectroscopy [and discussion]. Zahniser, M.S., Nelson, D.D., McManus, J.B., Kebabian, P.K., Lloyd, D. *Phil. Trans. Roy. Soc.* (Lon.) **A 351**, 371-382.

234. Eruptions of Comet Hale – Bopp at 6.5AV, N. C. Wickramasinghe, F. Hoyle and D. Lloyd (1996). *Astrophys. Space Sci* **240**, 161-165

235. The biotransformation of simple phenolic compounds by *Brettanomyces anomalous.* D. A. N. Edlin, A. Narbad, J. R. Dickinson and D. Lloyd. *FEMS Microbiol. Lett.* **125**, 311-316 (1995).

236. Chaos: its significance and detection in biology. A. L. Lloyd and D. Lloyd. *Biol. Rhythm Res.* **26**, 233-252 (1995).

237. Influence of plasma membrane fluidity on phagocytotic activity in *Acanthamoeba castellanii.* S. V. Avery, D. Lloyd and J. L. Harwood. *Biochem. Soc. Trans.* **23**, 409S (1995).

238. Characterization of the fatty acid delta 12 desaturase of *Acanthamoeba castellanii.* A. J. Rutter, D. Lloyd and J. L. Harwood. *Biochem. Soc. Trans.* **23**, S (1995).

239. Yeast vitality during cider fermentation: two approaches to the measurement of membrane potential. M. G. Dinsdale, D. Lloyd and B. Jarvis. *J. Inst. Brewing* **101**, 453-458 (1995).

240. Spatial and temporal variations of dissolved gases (CH_4, CO_2 and O_2) in peat cores. J. Benstead and D. Lloyd. *Microbial Ecology* **31** (1) 57-66 (1995).

241. Cell cytotoxicity of $NaNO_2$, sodium nitroprusside and Roussin's black salt against *Trichomonas vaginalis.* J-S. Ryu and D. Lloyd. *FEMS Microbiol. Lett.* **130**, 183-188 (1995).

242. The effects of cocultivation with the acetogen *A.ruminis* on the fermentative metabolism of the rumen fungi *N.patriciarum* and *N.sp.* strain L2. E. M. Rees, D. Lloyd and A. G. Williams. *FEMS Microbiol. Lett.* **133**, 175-180 (1995).

243. A MIMS miniprobe for the direct simultaneous measurement of multiple gas species. D. Lloyd, K. Thomas, D. Price, B. O'Neil, K. Oliver and T. N. Williams. *J. Microbiol. Meth.* (1996). **25**, 145-151.

244. A comparison of different methods for the measurement of dissolved gas gradients in waterlogged peat cores. K. L. Thomas, D. Price and D. Lloyd. *J. Microbiol. Meth.* **24**, 191-198 (1995).

245. Role of wetland plants in the diurnal control of methane and carbon dioxide fluxes in peat. K. L. Thomas, J. Benstead, K. L. Davies and D. Lloyd. *Soil Biol. Biochem.* **28**, 17-23 (1996).

246. The effects of ethanol hexan-1-ol and 2-phenylethanol on cider yeast growth viability and energy status: synergistic inhibition. R. Seward, J. C. Willetts, M. G. Dinsdale and D. Lloyd. *J. Inst. Brew*. (1995). **101**, 453-458.

247. Temperature-dependent changes in plasma membrane order and the phagocytotic activity of the amoeba *Acanthamoeba castellanii* are closely correlated. S. V. Avery, D. Lloyd and J. Harwood. *Biochem. J.* **132**, 811-816 (1995).

248. Intracellular prokaryotes in rumen ciliate protozoa: detection by confocal laser scanning microscopy after *in situ* hybridization with fluorescent 16S rRNA probes. D. Lloyd, A.G. Williams, R. Amman, A.J.Hayes, L, Durrant and J. R. Ralphs. *Europ. J. Protistol* (1996). **32**, 523-531.

249. Gas diffusion coefficient profile in peat determined by modelling mass spectrometric data: implications for gas phase distribution. K. D. Stephen, J. R. M. Arah, K. L. Thomas, J Benstead and D. Lloyd. *Soil Biol. Biochem* (1998) **30**, 429-431.

250. Flow cytometric monitoring of rhodamine 123 and cyanine dye uptake by yeast during cider fermentation. D. Lloyd, C. Moran, M.T.E. Suller, M.G. Dinsdale and A.J.Hayes. *J.Inst. Brewing.* **102,** 251-259 (1996).

251. Obligate anaerobe or not: D. Lloyd *Nature*, **381**, 121 (1996).

252. Oxygen Dependent Low Temperature n6 (Δ12)-Desaturase Induction and Alteration of Fatty Acid Composition in *Acanthamoeba castellanii.* S. V. Avery, J. Rutter, J. L. Harwood and D. Lloyd. *Microbiology* (1996) **142**, 2213-2221.

253. Molecular data suggest an earlier acquisition of the mitochondrion endosymbiont. D. S. Horner, R. P. Hirt, S. Kilvington, D. Lloyd and T. M. Embley. Proc. Royal Soc B (1996) **263**, 1053-1059.

254. The lethal effects of biguanides on cysts and trophozoites of *Acanthamoeba castellanii.* W. Khunkitti, D. Lloyd, J. R. Furr and A. D. Russell. *J. Appl. Bact.* **81**, 73-77 (1996).

255. Aspects of the mechanisms of action of biguanides on trophozoites and cysts of *Acanthamoeba castellanii.* W. Khunkitti, D. Lloyd , J. R. Furr and A. D. Russell. *J. Appl. Bact.* **82**, 107-114 (1997).

256. Rapid methylation of cell proteins and lipids in *Trypanosoma brucei*. B. Goldberg, N. Yarlett, D. Rattendi, D. Lloyd and C. J. Bacchi. *Euk. Microbiology* **44**, 345-351 (1997).

257. A Flow Cytometric Study of the Antibiotic induced damage and evaluation as a rapid antibiotic susceptibility test for methicillin-resistant *Staphyloccocus aureus*. M. T. E. Suller and D. Lloyd. *Antimicrobial Agents & Chemotherapy.* **40**, 77-83.

258. Micro-ecology of peat: minimally invasive analysis using confocal laser scanning microscopy, membrane inlet mass spectrometry and PCR-amplification of methanogen-specific gene sequences. D. Lloyd, K.L. Thomas, A. Hayes, B. Hill, B.A. Hales, C. Edwards, J. R. Saunders, D.A. Ritchie and M. Upton. *FEMS Microbial. Ecol.* **25**, 179-188 (1998).

259. Vitality of cider yeast grown micro-aerobically with added ethanol, *n*-butanol or *iso*-butanol. J. C. Willetts, R. Seward, M.G. Dinsdale, M. T. E. Suller, B. Hill & D.Lloyd. *J. Inst. Brew* **103**, 79-84 (1997)

260. Diurnal oscillations of gas production and effluxes (CO_2 AND CH_4) in cores from a peat bog. K.L. Thomas, D. Lloyd, J. Benstead and S.H. Lloyd. *Biol. Rhythm Res.* **29**, 247-259 (1998)

261. *Acanthamoeba castellanii*: growth, encystment, excystment and biocide susceptibility. W. Khunkitti, D. Lloyd, J.R. Furr and A. D. Russell. *J. Infect.* **36**, 43-48 (1998).

262. Biguanide-induced changes in *Acanthamoeba castellanii*: an electron microscopy study. W. Khunkitti, A. C. Hann, D. Lloyd, J. R. Furr and A. D. Russell. *J. Appl. Microbiol* **84**, 53-62 (1998).

263. The ultradian clock of *S.pombe*: timing of cell cycle stages in fast growing cells. F. Kippert and D. Lloyd. *(unpublished)*

264. Oscillations of CO_2 evolution and medium acidification: metabolism under control of the untradian clock of *S.pombe*. F. Kippert and D. Lloyd. *(unpublished)*

265. Subcellular localization of particulate phosphofructokinase in a strain of *Saccharomyces cerevisiae* deleted for the soluble enzyme. Z. Lobo, M. T. E. Suller, C. Winters, B. Hill & D. Lloyd. *(unpublished)*

266. Effects of biocides on *Acanthamoeba castellanii* as measured by flow cytometry and plaque assay. *J. Antimicrob Chemother.* **40**, 227-233.

267. Chaos and ultradian rhythms. D.Lloyd *Biol. Rhythm Res.* **28**, 134-143.

268. The effects of differing levels of CO_2 and O_2 on the fermentative metabolism of the rumen fungi *Neocallimastix patriciarum* and *Neocallimastix* strain L2 (1998) Rees, E.M.R., Lloyd, D & Williams, A.G. *Canad. J. Microbiol*. **44**, 819-824.

269. Hydrogenosomes of *Metopus contortus* physiologically resemble mitochondria (1997) Biagini, G.A., Hayes, A.J, Suller, M.T.E, Winters, C., Finlay, B.J. & Lloyd, D. *Microbiology* **143,** 1623-1629.

270. Ca^{2+} accumulation in the hydrogenosomes of *Neocallimastix frontalis* L2 : a mitochondrial-like physiological role. (1997) Biagini, G.A. vander Giezen, M., Hill, B., Winters, C. & Lloyd, D. *FEMS Microbiol Lett*. **149**, 227-232.

271. Oxygen uptake and antioxidant responses of the free-living diplomonad *Hexamita* sp. Biagini, G.A., Suller, M.T.E., Finlay, B.J. and Lloyd, D. (1997) *J.Euk. Microbiol.* **44,** 447-453.

272. Evolution of the hydrogenosome. (1997) Biagini, G.A., Finlay, B. & Lloyd, D. *FEMS Microbiol. Lett.* **153**, 133-140.

273. Oxygen induces microsomal fatty acid Δ12(n6) -desaturase independently of temperature in O_2-limited cultures of *Acanthamoeba castellanii* (1997) Thomas, K.L., Rutter, A.J., Suller, M.T.E., Lloyd, D. & Harwood, J. *FEBS Lett.* **425**, 171-174.

274. Effect of adherence to silicone surfaces on antibiotic susceptibility in *Staphylococcus aureus*. I.Williams, W.A.Venables, D.Lloyd, F.Paul and I.Critchley (1997) *Microbiology* **143,** 2407-2413.

275. The purification and characterisation of ferrulate decarboxylase from *Brettanomyces anomalous*. D.A.N.Edlin., A.Narbad, J.R.Dickinson., & D.Lloyd. (1998) *Enzyme & Microbe Technol.* **22**, 232-239.

276. Methanogenesis and CO_2 exchange in an ombrotrophic peat bog. D.Lloyd, K.L.Thomas, J.Benstead, K.L.Davies, S.H.Lloyd, J.R.M.Arah and K.D.Stephen Atmospher. Environ. (1998). **31**, 3229-3238.

277. Acridine orange as an indication of bacterial susceptibility to gentamycin. D. Mason & D. Lloyd *FEMS Microbiol Letters* (1997) **153**, 199-204.

278. A flow cytometric assessment of the postantibiotic effect of methicillin on *Staphylococcus aureus.* M. T. E. Suller, J. M. Stark & D. Lloyd. *J. Antimicrob. Chemother.* (1998) **42,** 1195-1199.

279. A unique transporter of S-adenosylmethionine in African trypanosomes. B. Goldberg, N. Yarlett, J. Sufrin, D. Lloyd and C. J. Bacchi. *FASEB J.* **11**, 256-260 (1997).

280. Effects of carboxylmethylation and polyamine sythesis inhibitors on methylation of *Trypanosoma brucei* cellular proteins and lipids. B. Goldberg, D. Rattendi, N. Yarlett, D. Lloyd and C. J. Bacchi. *J. Euk. Microbiol.* **44**, 352-358 (1997).

281. Confocal Laser Scanning Microscopy of Trichomonads: Hydrogenosomes store Calcium and show a Membrane Potential. Humphreys, M, Ralphs, J, Durrant, L and Lloyd, D. (1998) *Eur. J. Protistol*. **34**, 356-362.

282. Anaerobiosis-induced differentiation of *Acanthamoeba castellanii*. Turner, N. A., Biagini, G. A. and Lloyd, D. (1997) *FEMS Microbiol. Lett.* **157**, 149-153.

283. Combined molecular ecological and confocal laser scanning microscopy analysis of peat both methanogen populations. Upton, M, Hill, B, Edwards, C, Saunders, J. R., Ritchie, D. A. and Lloyd, D. (2000). *FEMS Microbiol. Lett. 193(2),* 275-281.

284. Kinetics of S-adenosylmethionine transport and protein methylation in *Trypanosoma brucei brucei* and *Trypanosoma brucei rhodesiense*. Goldberg, B., Rattendi, D., Lloyd, D., Yarlett, N and Bacchi, C. J. (1999) Arch Biochem Biophys 364, 13-18 (1999).

285. N_2, N_2O and O_2 profiles in a Tagus estuary salt marsh sediment. (1999). Cartaxana, P and Lloyd, D. Coastal and Shelf Science **48**, 751-756.

286. Lipids and Lipid Metabolism in the Microaerobic Free-Living Diplomonad *Hexamita* sp. Biagini, G. A., Rutter, A. J., Finlay, B. J. and Lloyd, D. (1998) *Euro. J. Protistolog.* **34**, 148-152.

287. Carbohydrate and Amino Acid Fermentation in the Free-Living Primitive Protozoon *Hexamita* sp.. Biagini, G. A., McIntyre, P. S., Finlay, B. J and Lloyd, D. *Appl. Environ. Microbiol.* **64**, 203-207 (1998).

288. Electrospray mass spectrometry for assay of erythromycin A extracted from fermentation liquor. Morgan, J., Rowlands, R. T., Joyce-Menekse, M. E., Gilbert, I. H. & Lloyd, D.*Biotechnol. Techn* (1998). **12**, 435-439.

289. The search for living cells in stratospheric samples. Narlikar, J. V., Ramadurai, S., Pushpa Bhargava, S. V. Damle, N. C. Wickramasinghe, D. Lloyd & D. H. Wallis, Instru. Meth. Missions for Astrobiol. **3441**, 301-305 (1998).

290. Fluorescence monitoring of antibiotic-induced bacterial damage using flow cytometry. M. T. E. Suller & D. Lloyd. *Cytometry* **35**, 235-241 (1999).

291. *Acanthamoeba castellanii*: growth encystment, excystment and biocide suseptibility. Khunkitti, W., Lloyd, D., J. F. Furr & A. D. Russell. *J. Infect.* **36**, 43-68 (1998).

292. Kinetics of S-adenosylmethionine cellular transport and protein methylation in *Trypanosoma brucei brucei* and *Trypanosoma brucei thodesiences*. Goldberg, B., Rattendi, D., Lloyd, D., Yarlett, N & Bacchi, C. J. *Arch Biochem Biophys* **364**, 13-18 (1999).

293. Effects of intermediates of methionine metabolism and analogs of S-adenosylmethionine transport in *Trypanosoma brucei brucei* and *Trypanosoma brucei rhodensiense.* Goldberg, B., Rattendi, D., Lloyd, D., Sufrin, J & Bacchi, C. J. *Biochemical Pharmacology*. (1998) 56, 95-103.

294. NO^+, but not NO^-, inhibits respiratory oscillations in ethanol-grown chemostat cultures of *Saccharomyces cerevisiae*. Murray, B., Engelen, A. A., Keulers, M., Kuriyama, H. & Lloyd, D. *Biochem. Soc. Trans.* (1998) **28**, 5339.

295. Fluorescence monitoring of Antibiotic-Induced Bacterial Damage Using Flow Cytometry. Suller, M. T. E. & Lloyd, D. *Cytometry* (1999) **35**, 235-241.

296. NO^+, but not NO^-, inhibits Respiratory Oscillations in Ethanol-grown Chemostat Cultures of *Saccharomyces cerevisiae*. Murray, B., Engelen, A. A., Keulers, M, Kuriyama, H & Lloyd, D. *FEBS Lett*. (1998) **431,** 297-299.

297. Menadione-generated radicals kill *Giardia intestinalis* trophozoites and cysts. Paget, T., Maroulis, S., Mitchell, A., Edwards, M. R., Jarroll, E L. & Lloyd, D. (1998)

298. Photosynthesis and gas dynamics in an estuarine sediment: sub-millimeter resolution profiles using membrane inlet mass spectrometry. Cowie, G & Lloyd, D. (unpublished)

299. Antibacterial activity of Vancomycin towards *Staphylococcus aureus* under aerobic and anaerobic conditions. Suller, MTE & Lloyd, D. *J.A ppl. Microbiol*. **92**, 866-872 (2002).

300. Nitrite Inhibits Hydrogen Production and Kills the Cattle Parasite *Tritric foetus*. Lloyd, D. Williams, A.G. & James C. J. *J. Appl. Microbiol*. **93**, 492-496 (2002).

301. Membrane inlet ion trap mass spectrometry for the direct measurement of dissolved gas in ecological samples. Cowie, G & Lloyd, D. *J. Microbiol Meth.* **25**, 1-12.

302. Protozoan stimulation of anaerobic microbial activity: enhancement of the rate of terminal decomposition of organic matter: Biagini, G. A., Finlay, B. J. & Lloyd, D. *FEMS Microb. Ecol.* **27**, 1-8 (1998)

303. Flow cytometry and other techniques show that *Staphylococcus aureus* undergoes significant physiological changes with early stages of surface-altades culture. Williams, I., Paul, F., Lloyd, D., Jepras, R., Critchley, I., Newman, M., Warrack, H., Giokarini, T., Hayes, A., Randerson, P. F. & Venables, W. A. *Microbiology* (1999). **145**, 1325-1333

304. Yeast Vitality During Cider Fermentation: Assessment By Energy Metabolism. Dinsdale, M. G., Lloyd, D., McIntyre, P. & Jarvis, B. *Yeast* (1999). **15**, 285-293.

305. Involvement of glutathione in the regulation of respiratory oscillations during continuous culture of *S.cerevisiae*. Murray, D. B., Keuler, M., Englen, F., Lloyd, D. & Kuriyama, H. (1999). *Microbiology* **145**, 2739-2745.

306. Anoxic function for the *E.coli* flavohaemoglobin (Hmp): reversible binding of NO and reduction to N_2O. Kim, S.O., Orii, Y., Lloyd, D., Hughes, M. N. and Poole, R. K. C. FEBS Lett. **445**, 389-394 (1999).

307. Kinetics, stereospecificity and expression of the malolactic enzyme. C. Authurs and D. Lloyd, Appl. Environ. Microbiol. **65**, 3360-3363 (1999).

308. X-ray analysis of chlorine and phosphorous content in bignanide-treated *Acanthamoel castellanii*. Khunkitti, W., Hann, A. C., Lloyd, D., Furr, J. R. F., Russell, A. D. (1999). *J. Appl-Microbiol*. **86**, 453-458.

309. Hydrogen peroxide is a product of oxygen consumption by *Trichomonas vaginalis*. A. Chapman, D. J. Linstead and D. Lloyd. J. Biosci. **24**, 339-344 (1999).

310. Phylogenetic analysis of peat bog methanogen populations. Nercessian, D., Upton, M., Lloyd, D. & Edwards, C. *FEMS Microbiol Lect.* **173**, 425-429 (1999).

311. Amino acid fermentation in non-starter *Lactobacillus* spp. Isolated from Cheddar cheese. J. D. Tammam, A. G. Williams, J. Noble and D. Lloyd. *Lett. Appl. Microbiol.* **30**, 370-374, (2000).

312. Emergence of resistance to biocides during differentiation of *Acanthamoeba castellanii*. N. A. Turner, A. D. Russell, J. R. Furr and D. Lloyd. *J. Antimicrob. Chemother*. 46, 22-34 **46**, (2000).

313. Clock control of ultradian respiratory oscillation found during yeast continuous culture. D. B. Murray, S. Roller, H. Kuriyama and D. Lloyd. *J. Bacteriol.* **183,** 7253-7259 (2001).

314. Rapid and Sensitive Quantitation of Antibiotics in Fermentations by Electrospray Mass Spectrometry. Janine Morgan, Miranda E. Joyce-Menekse, Robert T. Rowlands, Ian H. Gilbert and David Lloyd. *Rapid Comms* **15**, 1229-1238 (2000).

315. Oxygen induction of a novel fatty acid (n-6) desaturase in the soil protozoan, *Acanthamoeba castellanii*. A.J. Rutter, K.L. Thomas, D. Herbert, R.J. Henderson, D. Lloyd & J.L. Harwood **368**, 57-67 (2002).

316. The microaerophilic flagellate *Giardia intestinalis* : Oxygen and its reaction products collapse membrane potential and cause cytotoxicity. D. Lloyd, J. Harris, S. Maroulis, G. A. Biagini, R. B. Wadley, M. Turner and M. R. Edwards. *Microbiology*, **146**, 3109-3118, (2000).

317. Oxygen toxicity in the microaerophilic amitochondriate flagellate, *Hexamita inflata*. G. A. Biagini, M. R. Edwards & D. Lloyd. *Microbiology* (2000). (unpublished)

318. Nitrosative stress-induced cytotoxicity in *Giardia intestinalis*. D. Lloyd, J. Harris, S. Maroulis, A. Mitchell, R. B. Wadley, M. N. Hughes & M. R. Edwards (2003*) J. Appl. Micro*. 95(3), 576-583.

319. Extraction and identification of volatile organic substances (VOS) from Scottish peat cores. Beckmann, M. & Lloyd, D. *Atmospheric Environment,* **35,** 79-86, (2001).

320. Mass spectrometric monitoring of gases (CO_2, CH_4, O_2) in peat cores from Kopparås Mire, Sweden. Beckmann, M. & Lloyd, D. *Gobal Change Biology,* **7,** 171-180, (2001).

321. Luminescence-controlled continuous culture of luminous bacteria: design and applications of a small volume bioluminostat for continuous ecotoxicant monitoring and sensitive oxygen assay. Lloyd, D., Jones, G., Rayner-Brandes, M.H., Larson, J. L., Ward, M. A. A. & James, C. J. *J. Microbiol Meth.* (2000) (unpublished)

322. The membrane potential of *Giardia intestinalis*. G.A. Biagini, D. Lloyd., K. Kirk & M.R.Edwards. *FEMS Microbiol. Letts.* **9639**, 1-5, (2000).

323. Enzymatic removal of nitric oxide catalyzed by cytochrome c^1 *Rhodobacter capsulatus.* R. Cross, D. Lloyd, R. K. Poole & J. W. B. Moir. *J. Bacteriol.,* **183,** 3050-3054, (2001).

324. Kinetics of methionine transport and metabolism by *Trypanosomà brucei brucei* and *Trypanosomà brucei rhodesiense*. B. Goldberg, D. Rattendi, D. Lloyd, N. Yarlett & C. J. Bacchi. *Arch. Biochem. Biophys.*, **377**, 49-57, (2000).

325. The antioxidant potential of pyruvate in the amitochondriate diplomonads *Giardia intestinalis* and *Hexamita inflata*. G. A. Biagini, J. H. Park, D. Lloyd & M. R. Edwards. *Microbiology,* **147,** 3359-3365 (2001).

326. In situ kinetic characterization of methyladenenosine transport by the adenosine transporter (P2) of the African *Trypanosomà brucei brucei* and *Trypanosomà brucei rhodesiense*. B. Goldberg, D. Rattendi, D. Lloyd, Sufrin JR & C. J. Bacchi. Biochem Pharmacol, 61(4), 449-457 (2001).

327. Membrane inlet mass spectrometeric measurement of O_2 and CO_2 gradients in cultures of *Lactobacillus paracasei* and a developing cheddar cheese ecosystem. J. D. Tamman, A. G. Williams, J. Banks, G. Cowie & D. Lloyd. *Intl. J. Food Microbiol.* **65,** 11-22, (2001).

328. Direct mass spectrometric measurement of gasses in soil monoliths. S.K. Sheppard & D. Lloyd. J Microbiol. Meth. **50**, 175-188 (2002).

329. Direct interface of chemistry to microbiological systems: Membrane inlet mass spectrometry. D. Lloyd., K. L. Thomas, G. Cowie, J. Tamman & A. G. Williams. *J. Microbiol. Meth.* **48**, 289-302 (2002).

330. The microaerophilic flagellate *Giardia intestinalis* : Allium sativum (garlic) is an effective antigiardial. J. C. Harris, S. Plummer, M. P. Turner, D. Lloyd. *Microbiology*, **146**, 3119-3127, (2000).

331. The "primitive" microaerophile *Giardia intestinalis* (Syn. *lamblia, duodenalis*) has specialized membranes with electron transport and membrane-potential-generating functions. D. Lloyd, J.C. Harris, S. Maroulis, R. Wadley, J.R. Ralphs, Ao. C. Hann, M. Turner, M. Edwards. Microbiology, **148**, 1349-1354 (2002).

332. Encystation of *Acanthamoeba castellanii* : dye uptake for assessment by flow cytometry and confocal laser scanning microscopy. C. Connell, A. Rutter, B. Hill, M. Suller, D. Lloyd. *J. Appl. Microbiol.* **65,** 11-22, (2001).

333. *Giardia intestinalis,* a eukaryote without hydrogenosomes, produces hydrogen. D. Lloyd, J. R. Ralphs & J. C. Harris. *Microbiology* **148**, 727-733 (2002)

334. Some antidepressant agents (Li^+ monoamine oxidase type A inhibitions perturb the ultradian clock in *S. cerevisiae.* E. Salgado, D. B. Murray & D. Lloyd. *Biol. Rhyth. Res.* **33**, 351-361 (2002).

335. The detection of living cells in stratospheric samples M. J. Harris, N. C. Wickramasinghe, D. Lloyd, J. V. Narlikar, P. Rajaralnam, M. P. Turner, S. Al-Mufti, M. K. Wallis, S. Ramadurai, F. F. Hoyle. *Instru. Meth. Missions Astron* **4449** (2001).

336. Evidence of photoluminescence of biomaterial in space. N.C. Wickramasinghe, D. Lloyd & J. T. Wickramasinghe. *Proc. SPIE* 4495 (2001).

337. Detection of extraterrestial life in stratospheric samples. D. Lloyd, N. C. Wickramasinghe, M. J. Harris, J. V. Narlikar, P. Rajaratnam, P. Bhargava, S. Shivaji, G.S.N. Reddy, M.P. Turner, A. Al-Mufti, M.K. Wallis, S. Ramadurai & F. Hoyle. 'Multicolour Universe' Proceedings of the International Conference, Sep 7-10, 2001. Mumbai. (Ed.) R.K. Manchanda & B.Paul. pp. 367-374 (2002).

338. Effects of soil amendment on gas depth profiles in soild monoliths using direct mass spectrometric measurements. S.K.Sheppard & D. Lloyd. Bioresource Technol **84**, 39-47 (2002).

339. Factors affecting the activity of enzymes involved in peptide and amino acid catabolism in non-starter lactic acid bacteria isolated for Cheddar cheese. A.G.Williams, J. Noble, J. Tammam, D. Lloyd and J. M.Banks. *Intl. Dairy Journal* **12**, 841-852 (2002).

340. Respiratory oscillations in yeast: clock driven mitochondrial cycles of energization. D. Lloyd, L. E. Salgado, M. P. Turner & D. B. Murray *FEBS Lett* **519,** 41-44 (2002).

341. Progress rowards vindication of panspermia. N. C. Wickramasinghe, M. Wainwright, J. V. Narlikar, P. Rajaratnam, M.J.Harris & D. Lloyd. *Astron. Space Res.* **283**, 403-413 (2002).

342. Garlic (*Allium sativum*) as an anti-Candida agent a comparison of the efficacy of fresh garlic and freeze-dried extracts. K. M. Lemar, M. P. Turner & D. Lloyd. *J. Appl. Microbiol*. **93**, 398-405 (2002).

343. Bacterial-like energy metabolism in the primitive protozoon *Hexamita inflata* G.A. Biagini, N. Yarlett, G. Ball, A.C. Billetz, D.G. Lindmark, M.P. Martinez, D. Lloyd &, M.R. Edwards. *Mol Biochem Parasitol.* **128***,* 11-19 (2003).

344. Cycles of mitochondrial energization driven by the ultradian clock in a culture of *Saccharomyces cerevisiae*. D. Lloyd, L. E. J. Salgado, M. P. Turner, M. T. E. Suller and D. Murray. *Microbiology.* **148** 3715-3724 (2002).

345. The impact of sludge amendment on methanogen community structure in an upland soil. S. K. Sheppard, A. J. McCarthy, J. P. Loughnane, N. Gray, I. M. Head & D. Lloyd. *Appl Soil Ecol* (2004) (accepted). please see 347

346. Mass spectrometric monitoring of gas dynamics in peat cores: effects of temperature and diurnal cycles on emission? M. Beckmann, S.K.Sheppard & D. Lloyd. *Atmospheric Environ*. **38**, 6907-6913.

347. The effect of soil improvement treatments on bacterial community structure and soil processes in an upland grassland soil. N.D. Gray, R.C. Hastings, S. Sheppard, C. Molyneux, P. Loughnane, D. Lloyd, A.J. McCarthy and I.M. Head. *FEMS Ecol* 1544, 1-12 (2003).

348. Diurnal oscillations in gas production (O_2 CO_2 CH_4 and N_2) in soil monoliths. S.K.Sheppard and D. Lloyd. Biol Rhythm Research. **33**, 577-591 (2002).

349. The GST1 protein stabilizes the autonomous oscillation in yeast. C.A. Adams, H. Kuriyama, D. Lloyd & D. B. Murray. *Yeast* **20**, 463-470 (2003).

350. Generation and maintenance of synchrony in *S. cerevisiae*. D. B. Murray, R.R. Klevecz & D. Lloyd. *Exptl. Cell Res*. **287**, 10-15 (2003).

351. Respiratory oscillations in yeast: mitochondrial reative oxygen species, apoptosis and time: a hypothesis. D. Lloyd, K.M. Lemar, E.J. Salgado, T.M. Gould & D.B. Murray *FEMS Yeast Res* **3**, 333-339 (2003).

352. Biological effects of millimeter-wave radiation: A high-throughput screening system. D. Pooley, C. Gibson, W.R. Stewart, J. Magee, E. Ellison & D. Lloyd. *Review of Scientific Instruments*, **74**, 1296-1302 (2003).

353. Continuous culture of photobacterium. D.T. Pooley, D. Lloyd, J. Larsson, G. Jones, M.H. Rayner-Brandes, C. Gibson & W.R. Stewart. *Biosensors & Bioelectronics*, **19**, 1475-63 (2004).

354. The plasma membrane of microaerophilic protists: oxidative and nitrosative stress (2004). D. Lloyd, J.C. Harris, G. A. Biagini, M. R. Hughes, S. Maroulis, C. Bernard, R. B. Wadley & M. R. Edwards. *Microbiology*, **150**, 1183-1190 (2004).

355. Effects of uncoupling of mitochondrial energy conservation on the ultradian clock-driven oscillations in *Saccharomyces cerevisiae* continuous culture. D. Lloyd, *Mitochondrion* **3**, 139-146 (2003).

356. Resistance, biguanide sorption and biguanide-induced pentose leakage during encystment of *Acanthamoeba* castellanii. N. Turner, D. Russell, J. Furr & D. Lloyd. App Micro **96**, 1287-1295 (2004).

357. An overview of cell death mechanisms in the human opportunistic pathogen, *Candida albicans*. K.M.Lemar, C.Müller, S. Plummer & D. Lloyd. *J. Eukaryotic Microbiol* **50**, 685-686 (2003).

358. Menadione kills *Giardia intestinalis* trophozoites and cysts. T.Paget, S.Maroulis, A. Mitchell, M.R.Edwards, E.L.Jarroll & D.Lloyd. *Microbiology* **150,** 1231-1236 (2004)

359. Ultradian clock timekeeping: periodic quasiperiodic and chaotic outputs. D.Lloyd, A.L.Lloyd, L.F.Olsen, M.Stolyarov, E.I.Volkov & D.B.Murray. *WSEAS Trans. Biol. Biomed*. **1**, 390-394 (2004).

360. Mass spectrometric monitoring of gas dynamics in peat monoliths: effects of temperature and diurnal cycles on emissions. M.Beckmann, S.K.Sheppard and D.Lloyd. *Atmospheric Environ*. **38**, 6907-6913 (2005).

361. Allyl alcohol and Garlic (*Allium sativum*) extract produce oxidative stress in *Candida albicans*. K.M.Lemar, O.Passa, M.A.Aon, S.Cortassa, C.T.Muller, S.Plummer, B.O'Rourke & D.Lloyd. *Microbiology* **151**, 2257-2265 (2005).

362. The impact of sludge amendment on methanogen community structure in an upland soil. S.K.Sheppard, A.M.McCarthy, J.P.Loughnane, N.D.Gray, I.M.Head & D.Lloyd. *Appl. Soil. Ecol*. **28**, 147-162 (2005).

363. The impact of sludge amendment on gas dynamics in an upland soil: monitored by membrane inlet mass spectrometry. S.K.Sheppard, N.Gray, I.M.Head & D.Lloyd. *Bioresource Technol*. **96**, 1103-1115 (2005).

364. Low tyrosine content of growth media yields of aflagellate *Salmonella enterica* serovar Typhimurium. V.L.Gray, M.O'Reilly, C.T.Müller, I.D.Watkins, and D.Lloyd. *Microbiology* **153**, 23-28 (2006).

365. Peptones from diverse sources, pivotal deteminants of bacterial growth dynamics. V.L.Gray, C.T.Müller, I.D.Watkins, D.Lloyd. *J.Appl.Microbiol*. In press (2006).

366. The Bioluminescence of *Vibrio fischeri*: optimal conditions for stability and intensity of photoemission. S.Scheerer, F. Gomez and D.Lloyd. *J.Microbiol.Meth*.

367. A tunable attractor underlies yeast cell growth dynamics. D.B.Murray and D.Lloyd. *Biosystems*. (2007) **90** 287-294

368. A bi-functional D12, D15 desaturase from Acathamoeba castellanii which synthesises highly unusual n-1 series fatty acids. O.Sayanova, R.Haslam, I.Guschina, D. Lloyd, J.L.Harwood and J.A.Napier. J. Biol. Chem. 281, 36533-34541 (2006).

369. The ultradian clock: not to be confused with the cell cycle. D. Lloyd (2006). Nature Rev. Molec. Cell Biol. **7** Dec. 2006 (online) doi: 10. 1038/hrm 1980-cl

370. The effect of temperature in methane dynamics in soil and peat cores: calculations from membrane inlet mass spectrometry. S.K.Sheppard, M. Beckmann, D.Lloyd. (2007) Canad. J. Soil Sci. **87**, 11-22

371. Single and cell population respiratory oscillations in yeast: A 2-photon scanning laser microscopy study. (2007) Aon, M.A., Cortassa, S. Lemar, K.M., Hayes, A.J., Cortassa, S. and Lloyd D. *FEBS Lett* **581**, 8-14. (2007).

372. Observation of a chaotic multioscillatory metabolic attractor by real-time monitoring of a yeast continuous culture. M.R.Roussel and D.Lloyd. FEBS J **274**, 1011-1018 (2007).

373. *Trichomonas vaginalis* and *Giardia intestinalis* produce nitric oxide and display NO-synthase activity. (2006) K.M.Harris, B.Goldberg, G.C.Biagini and D.Lloyd. Protistology **53**, (S1) 5182-5183

374. Diallyl disulphide deplets glutathione in *Candida albicans*: oxidative stress-mediated cell death studied by two-photon microscopy (2007) Lemar, K.M., Aon, M.A., Cortassa S., O'Rourke B., Müller C and Lloyd D. Yeast **24**, 695-706

375. Ultradian metronome: timekeeper for orchestration of cellular coherence. D. Lloyd & D.B.Murray *Trends Biochem. Sci*. **30**, 373-377 (2005).
*(also 125 in list D)

376. Ultradian rhythms and clocks in plants and yeast. D.Lloyd. *Biol Rhythm Res*. 37(4), 281-296 (2006).
*(also 126 in list D)

377. Why homeodynamics, not homeostasis? D. Lloyd, M. Aon & S. Cortassa. *The Scientific World,* **1,** 133-145 (2001). (*also 104 in list D)

378. Rhenium *fac* tricarboyl bisime complexes: biologically useful fluorochromes for cell imaging applications. (2007) Amoroso A.J., Coogan M.P., Dunne J.E., Fernández-Moreira V., Hess J.B., Hayes A.J., Lloyd D., Millet C., Pope S.J.A. and Williams C. Chem. Commun. 3066-3068.

379. Evolution of eukaryotic Life: Oscillations, Rhythms and Clocks are a Necessity. Lloyd D ,Aon MA ,Murray DB ,Cortassa S Protistology 2007 5 (1):51

380. H_2 Production in the Fish Parasite, *Spironucleus vortens* Millet CO, Cable J, Lloyd D. Protistology 2007 5 (1):55

381. *Trichomonas vaginalis* and *Giardia intestinalis* produce Nitric Oxide: does Nitrosylation Induce Carbohydrate Metabolism ? (2007). Harris KM ,Goldberg B, van der Giezen M, Biagini GA, Lloyd D. Protistology 5 (1), 36

382. 3-Chloromethylpyidyl bipyridine fac-tricarbonyl rhenium: a hiol-reactiveluminophore for fluorescence microscopy accumulates in mitochondria. (2009) Amoroso AJ, Arthur RJ Coogan MP, Court JB, Fernandez-Moran V, Millet C, Pope SJA New J Chem 32, 1097-1102

383. The microaerophilic flagellate, Trichomonas vaginalis, contains unusual acyl lipids but no detectable cardiolipin (2009). Guschina IA, Harris KM, Maskrey B, Goldberg B, Lloyd D, Harwood JL. J Eukaryot Microbiol. 2009 56(1):52-7.

384. The scale-free dynamics of eukaryotic cells. Aon MA, Roussel MR, Cortassa S, O'Rourke B, Murray DB, Beckmann M, Lloyd D. PLoS ONE. 2008 3(11):e3624

385. Multioscillatory behaviour in energetics and NAD(P)H dynamics in yeast. Murray DB , Machne R, Soga T, Amariei C, Lloyd D, Aon MA, Kimura C, Igarashi K, Tomita M. Systems Biol 2009

386. Probing intracellular oxygen by quenched phosphorescence lifetimes of nanoparticles containing polyacrylamide-embedded $[Ru(dpp(SO_3Na)_2)_3]Cl_2$ (2010) M.P. Coogan, J. B. Court , V.L. Gray, A.H. Hayes, S. H. Lloyd, C. O. Millet , S.J. A. Pope & D.Lloyd (2010) Photochem. Photobiol. Sci . 9, 103-106

387. Uptake, localisation, toxicity and stability of rhenium *fac*-tricarbonyl bisimine pyridine derivatives as fluorophores in cell imaging studies in eukaryote cells . (2010) V. Fernandez-Moreira, F.L.Thorp-Greenwood , A. J. Amoroso, J.Cable, J. B. Court, V. Gray, A.J. Hayes, RI Jenkins, B. M. Kariuki, D. Lloyd, C.O. Millet, C. F. Williams, M.P. Coogan,. Organic and Biological Chemistry 8, 3888-3901

388. Alfred Russel Wallace deserves better. D. Lloyd, J. Wimpenny, WA Venables. (2010) J Biosci 35(3) 339-349

389. The diplomonad fish parasite *Spironucleus vortens* produces hydrogen. C. O. Millet, J. Cable, D. Lloyd (2010) J Eukaryot Microbiol 57(5), 400-405

390. The in vitro culture of ther diplomonad fish parasite reveals an unsually fast doublin time and atypical biphasic growth. (2010). Millet COM, Lloyd D, Williams CF, Cable J. J Fish Diseases 34(1), 71-73

391. The effect of garlic and allium-derived products on the growth and metabolism of *Spironucleus vortens*. (2010) Millet COM, Lloyd D, Williams CF, Williams D Evans G, Saunders RA, Cable J Exp Parasitol 127 (2), 490-499

392. A 'Sleeping Trojan Horse' which transports metal ions into cells, localises in nucleoli, and has potential for bimodal fluorescence/PET imaging. (2010) Thorp-Greenwood FL, Fernández-Moreira V, Millet CO, Williams CF, Cable J, Court JB, Hayes AJ, Lloyd D, Coogan MP. Chem Commun (Camb) 47(11), 3096-8.

393. Carbohydrate and amino acid metabolism of *Spironucleus vortens*. (2011) COM Millet **,** D Lloyd , MP Coogan, J Rumsey, J Cable. Exp. Parasitol. 129, 17-26

394. Measurement of gas fluxes using tunable diode laser spectroscopy. (1995) MS Zahnizer, DD Nelson, JB McManus PL Kebabian Phil Trans Roy Soc London A 351, 371-382

395. BA Stanley, V Sivakumaran , S Shi, I McDonald, D Lloyd, WH Watson, MA Aon N Paolocci (2011).Thioredoxin reductase 2 is essential for keeping low levels of H_2O_2 emission from isolated heart mitochondria. J Biol Chem 286, 33669-33677.

396. K. Sasidharan, M. Tomita, MA Aon, D Lloyd , DB Murray (2012).Time structure of the Yeast metabolome *in vivo*. Adv. Exp. Med Biol 736 359- 379. Springer science+ Business Media

397. D Lloyd MA Aon, S Cortassa & B O'Rourke (2012). What Yeast and Cardiomyocyes share : ultradian redox core mechanisms of cellular coherence and survival. D Lloyd MA Aon, S Cortassa & B O'Rourke. Integrative Biology 4, 65-74

398. Evaluation of two novel methods for assessing intracellular oxygen (2012) CF Williams , M Kombrabail, K Vijayalakshmi , N White, G Krishnamoorthy, D Lloyd. Measurement Science and Technology 23 , 084005 (7pp)

399. Disrupted intracellular redox balance of the diplomonad fish parasite *Spironucleus vortens* by 5-nitroimidazoles and garlic derived compounds. (2012) Williams CF, Lloyd D Kolarich D, Alagesan K, Duchene M , Cable J, Williams D, Leitch D. Vet Parasit 190, 62-73

400. Aruna K , Lloyd D (2012) Loss of the Pasteur Effect in phosphofructokinase disruptants of *Saccharomyces cerevisiae*: direct demonstration by membrane inlet mass spectrometry Inter J Mod Biotec 2(1) 213-220

401. Intracellular oxygen: similar results from two methods of measurement using phusphorecrnt nanopaticles. (2014) D Lloyd, CF Williams, K Vijayalakshmi, M

Kombrabail, N White, AJ Hayes, MA Aon, G Krishnamoorthy. J Innov Opt Health 7(2), 1350041 (14 pp.)

402. The dynamics of cellular energetics during continuous yeast cultures. (2013). C Amariei, R Machne, K Sasidharan, W Gottstein M Tomita, T Soga, D. Lloyd , DB Murray, Conf. Proc. IEEE Eng. Med. Biol. Soc. 2013 2708-2711

403. Non-invasive investigation of *Spironucleus vortens* transmission in fresh water angelfish *Pterophylum scalare*. (2013). CF Williams, AR Vacca, D Lloyd, B. Schelkle, J. Cable. Dis Aquat Org 105, 211-223

404. Mitochondria-derived organelles in the diplomonad fish parasite *Spironucleus vortens* (2013) COM Millet, CF Williams, AJ hayes, AC Hann, J Cable, D Lloyd, Exp Parasiol 135, 263-273

405. Unexpected properties of NADP-dependent secondary alcohol dehydrogenase (NADH-1) in *Trichomonas vaginalis* and other microaerophilic parasites. (2013) D Leitsch, CF Williams, D. Lloyd, M Duchene. Exp Parasitol 134, 374-380

406. Encystment in *Acanthamoeba castellanii*, a review (2014) D. Lloyd , CF Williams, Exp Parasitol 145, S20-S27

407. Antioxidant defenses in *Spironucleus vortens*: glutathione is the major non-protein thiol. (2014) Williams CF, Yarlett N, Aon MA Lloyd D, Mol Biochem Parasitol 196, 45-52.

408. Fluorescent Rhenium-Naphthalimide conjugates as cellular imaging agents. (2014) Langdon-Jones EE, Symonds NO, Yates SE, Hayes AJ, Lloyd D, Williams R, Coles SJ, Horton PN, Pope SJA, Inorg Chem 53, 3788-3797.

409. Motility of the diplomonad fish parasite *Spironucleus vortens* through thixotropic solid media. (2015) Lloyd D, Lewis IB, Williams CF, Hayes AJ, Symons H, Hill EC, Microbiol 161, 213-218

410. New Tunes from the Heart. (2015) Lloyd D, Williams CF, *Biophys J* 108(8), 1841-1842

411. Water-soluble, cyclometalated Pt(II)-Ln(II) conjugates towards novel bimodal imaging agents. (2015) Stacey OJ, Amoroso AJ, Platts JA, Horton PN, Coles SJ, Lloyd D, Hayes AJ, Dunsford JJ, Pope SJA *Chem Com* 51(61), 12305-08.

412. Alkyl-naphthalamide fluorophores:gold coordination chemistry and cellular imaging applications. (2015) Langdon-Jones EE, Lloyd D, Hayes AJ, Wainwright SD, Mottram HJ, Coles SJ, Horton PN, Pope SJA. *Inorg Chem* 54(13), 6066-6615.

413. Diversity in mitochondrion-derived organelles of the parasitic diplomonads Spironucleus and Giardia. (2013) Williams CF, Millet COM, Hayes AJ, Cable J, Lloyd D, *Trends Parasitol* 29, 311-312

414. Comparative biochemistry of *Giardia, Hexamita and Spironucleus*. (2014) Lloyd D, Williams CF, Mol Biochem Parasitol 197, 43-49

415. The redox-active drug metronidazole and thiol-depleting garlic compounds act synergistically in the protist parasite *Spironucleus vortens.* (2016) Williams CF, Vacca AR, Dunham L, Lloyd D, Coogan MP, Evans G, Graz M, Cable, *Mol Biochem Parasitol 206*, 20-28

416. What the deep sea can tell us about microwaves Williams CF, Lloyd D, Lees J, Pirog A, Geroni GM, Pastre J, Kriegel V, Porch A (2016) *IEEE/MTT-S Intern Microwave Conf*, Hawaii.

417. Biological timekeeping : the business the business of a blind watchmaker. (2016) Lloyd D *Science Prog* 99(2), 1-21

418. Network dynamics: quantitative analysis of complex behaviour in metabolic, organelle, and cells; from experiments to models and back. (2017) Kurz, FK, Kembro, JM., Flesia, AG., Armoundas, AA, Cortassa, S, Miguel MA. & Lloyd D. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine* 9 doi: 10.1002/wsbm.1352. Epub 2016 Sep 7. Review. PMID: 27599643

419. The separated electric and magnetic field responses of luminescent bacteria exposed to pulsed microwave irradiation. Williams CF, Geroni GM, Pirog A, Lloyd D, Lees J, Porch A. (2016) *Appl Phys Lett* 109(9), 93701

420. Anticancer, azonafide-inspired fluorescent ligands and their Rhenium(I) complexes for cellular imaging (2017) Langdon-Jones EE, Jones AD, Williams CF, Hayes AJ, Lloyd D, Mottram HJ, Pope SJA, Eur J Inorg Chem 2017(3),759-766

421. Luminescent 1,8-Naphthalamide-derived complexes: syntheses, spectroscopy, X-ray structure and preliminary nbioimaging in fission yeast cells. (2017) Langdon-Jones EE, , Williams CF, Hayes AJ, Lloyd D, Coles SJ, Horton PN, Groves LM, Pope SJA, Eur J Inorg Chem 2017, 5279-5287

422. Exploring the cellular uptake and localisation of phosphorescent rhenium fac-tricarbonyl metallosurfactants as a function of lipophilicity. Hallett AJ, Placet E, Prieux R, McCafferty, D, Platts JA, Lloyd D, Isaacs M, Hayes AJ, Coles SJ, Pitak MB, Marchant S, Marriott SN, Allemann RK, Derversi A, Fallis IA (2018). Dalton Trans 47(40), 14241-25

423. Mitochondrial chaotic dynamics: redox-energetic behaviour at the edge of stability. (2018) Kembro, JM. Cortassa, S., Lloyd, D, Sollott, SJ, & Aon, MA. Science Reports 8, 15422

424. Real-time microscopic observationof biological interactions with microwave fields (2018) Williams CF, Lees J, Lloyd D, Geroni GM, Jones S, Ambala S, Baradat W, Comat TG, Aboubakary A, Voisin S, Porch A IEEE/MTT-S Intern Microwave Conf, Philadelphia

425. Temporal metabolic partitioning of the yeast and protist cellular networks: the cell is a global scale-invariant (fractal or self-similar) multioscillator. Lloyd D, Murray DB, Aon MA, Cortassa S, Roussel MR, Beckmann M, Poole RK (2018) J Biomed Opt 24 (5), 051404

426. Fluorescent functionalised naphthalamides and their Au(I) – NHC complexes for potential use in cellular bioimaging. Groves LM, Williams CF, Hayes AJ, Ward BD, Isaacs MD, Symonds NO, Lloyd D, Horton PN, Coles SJ, Pope SJA (2019). Dalton Trans 48, 1599-161

427. Bioluminescence of *Vibrio fischeri*: bacteria respond quickly and sensitively to pulsed microwave electric (but not magnetic) fields. (2019) Williams CF, Geroni GM Lloyd D, Choi H, Clark N, Pirog A, Lees J, Porch A, *Journal of Biomedical Optics* 24(5), 51412.

428. An appreciation of the prescience of Don Gilbert (1930-2011): master of the theory and experimental unraveling of biochemical and cellular oscillatory dynamics. (2020) Gilbert, K., Hammond, K.D, Brodsky VY & Lloyd, D. *Cell Biol. Int* (2020) 44, 1283-1298.

429. Oxygen levels are key to understanding "Anaerobic" protozoan pathogens with micro-aerophilic lifestyles. (2021) David Lloyd, Alan Chapman, Jayne E. Ellis, Kevin Hillman, Timothy A. Paget, Nigel Yarlett & Alan G. Williams. *Advances in Microbial Physiology*, **79**, 163-240.

430. Murray, D.B., Lloyd, D. Multiple rediscoveries and misconceptions; the yeast metabolic oscillator. (2021) *Function* **2**(5) 2(5), zqab039. Oxford Academic.

431. Ahortor, E., Baillie, L., Lloyd, D. and Blaxland, J. 2023. Virucidal efficacy of gaseous ozone against type 1 herpes simplex virus (hsv-1). *Ozone: Science & Engineering*. pp1-10 (10.1080/01919512.2023.2231037)

432. Williams, C. F. et al. 2023. Non-thermal disruption of β-adrenergic receptor-activated Ca2+ signalling and apoptosis in human ES-derived cardiomyocytes by microwave electric fields at 2.4 GHz. Biochemical and Biophysical Research Communications 661, pp. 89-98. (10.1016/j.bbrc.2023.04.038)

433. Kembro, J., Flesia, A., Nieto, P., Caliva, D., Lloyd, D., Cortassa, S. and Aon, M. 2023. A dynamically coherent pattern of rhythms that matches between distant species across the evolutionary scale. *Nature Scientific Reports*, **13**, Article number: 5326 (10.1038/s41598-023-32286-0)

434. Thomas, Louise & Khan, Naveed & Siddiqui, Ruqaiyyah & Alawfi, Bader & Lloyd, David. (2023). Cell death of Acanthamoeba castellanii following exposure to antimicrobial agents commonly included in contact lens disinfecting solutions. *Parasitology Research*. **123**. (10.1007/s00436-023-08061-5)

435. Yarlett, N., Jarroll, E., Morada, M.and Lloyd, D. 2024. Protists: Eukaryotic single-celled organisms and the functioning of their organelles. Advances in Microbial Physiology (10.1016/bs.ampbs.2024.02.001)

436. Alawfi, Bader Saleem; Khan, Naveed Ahmed; Lloyd, David; Siddiqui, Ruqaiyyah 2024 Acanthamoeba keratitis: new hopes for potential interventions for a curable but often refractory disease. Expert Review of Ophthalmology, ISSN: 1746-9899 , 1746-9902;
(10.1080/17469899.2024.2370881)

437. Siddiqui, R., Lloyd, D., Alharbi, A. M., & Khan, N. A. (2024). Emerging therapies against *Naegleria fowleri*. *Expert Opinion on Orphan Drugs*, *12*(1), 41–49.
(10.1080/21678707.2024.2383173)

438. Helen A. Jenkins, Alun L. Lloyd, Jackelyn M. Kembro and David Lloyd 2025 Time and function in the living world. Advances in Microbial Physiology (Available online 8 April 2025)
(10.1016/bs.ampbs.2025.02.001)

439. Siddiqui, R., Lloyd, D., Conway, M., & Khan, N. A. 2025 Breaking Barriers: Precision Approaches to Combat Brain-Eating Amoebae Infection. *Acta Tropica*, *266*, Article 107643.
10.1016/j.actatropica.2025.107643)

440. Siddiqui, R., Lloyd, D., & Khan, N. A. 2025 Emerging patents versus brain eating amoebae, Naegleria fowleri. 2025 *Pharmaceutical Patent Analyst*. Advance online publication.
(10.1080/20468954.2025.2459584)

441. Siddiqui, R., Lloyd, D., Maciver, S. K. and Khan, N. A. 2025. Gut microbiome-derived metabolites and epigenetic modulation as potential countermeasures to acute stress. Discover Medicine 2(1), article number: 280.
(10.1007/s44337-025-00490-8)

442. Ruqaiyyah Siddiqui, David Lloyd, Antonio Ortega-Rivas, Naveed Ahmed Khan, Demystifying the complexities of survival in the majority of Protists of human importance for beginners 2025 *FEMS Microbiology Letters*, Volume 372, fnaf110,
(10.1093/femsle/fnaf110)

C. REVIEW ARTICLES AND CHAPTERS IN BOOKS

1. The tricarboxylic acid cycle. D. Lloyd. *Process Biochem.* **1**, 465, (1966).

2. Fatty acid oxidation. D. Lloyd. *Process Biochem.* **3**, 33, (1968).

3. The disintegration of microorganisms. D.E. Hughes, J.W.T. Wimpenny, D. Lloyd. *Methods in Microbiology.* Vol.VB, pp.1-53. Academic Press, London & New York, pp.1-53 (1971).

4. The development of organelles concerned with energy production. D. Lloyd. Soc Gen Microbiol Symposium, X1X, *Microbial Growth,* Cambridge University Press, pp. 299-332 (1969).

5. Structure, function and distribution of organelles in prokaryotic and eukaryotic microbes. D.E. Hughes, D. Lloyd, R. Brightwell. Soc Gen Microbiol Symposium, XX, *Prokaryotic and Eukaryotic Cells*, Cambridge University Press, pp. 295-322 (1970).

6. Respiration of algae. In: *Biochemistry and Physiology of the Algae.* Edited by W. D. P. Stewart. Blackwells Ltd., Oxford, pp. 505-529 (1974).

7. Cyanide-insensitive respiration in *A. castellanii.* S. W. Edwards & D. Lloyd. In: *Functions of Alternative Oxidases,* pp. 31-37. Edited by H. Degn, D. Lloyd & G. C. Hill. Pergamon Press, Oxford, pp. 31-37 (1978).

8. Pathways of electron transport alternative to the main phosphorylating chain. D. Lloyd & S. W. Edwards (*ibid.)*, pp. 1-9.

9. Terminal oxidases - A summary. D. Lloyd & S. W. Edwards (*ibid.)*, pp. 187-193.

10. Disruption of microorganisms. W. T. Coakley, A. J. Bater & D. Lloyd. *Advances in Microbial Physiology* **16**, 279-341 (1977).

11. Round table 22A organellar function and biochemistry. D. Lloyd & M. Muller. Vth Int. Congress of Protozoology, New York, pp. 147-159 (1977).

12. Cellular energy control. D. Lloyd, C. Edwards, S. W. Edwards, G. El'Khayat, S. J. Jenkins, L. John, C. A. Phillips & M. Statham. Trends Biochem Sci, N 138 - 139, June 1978.

13. Subcellular structure and function in acetate flagellates. D. Lloyd & M. H. Cantor. *Biochem. & Physiol. of Protozoa,* 2nd Edition, Vol. 2, pp. 9-65 (1979).

14. Techniques for the breakage of cells and tissues. D. Lloyd & W. T. Coakley. *Techniques in Metabolic Res.* **B201**, 1-18 (1978).

15. Subcellular fractionation: isolation and characterisation of organelles. D. Lloyd & R. K. Poole. *Techniques in Metabolic Res.* **B202**, 1-27.

16. General methodology for isolation and characterisation of mitochondria from microorganisms. D. Lloyd. *Methods in Enzymology,* Vol. IV. Academic Press, Inc. (1978).

17. Structure, function, biogenesis and genetics of mitochondria. D. Lloyd & G. Turner. In: *The Eukaryotic Microbial Cell Society for General Microbiology Symp. 30, Cambridge University Press.* Edited by G. W. Gooday, D. Lloyd & A. P. J. Trinci (1980).

18. The cell division cycles of yeasts. D. Lloyd. In: *Fungal Differentiation* (edited by J. E. Smith), pp. 107-145. Marcel Dekker, New York (1983).

19. Epigenetic oscillations during the cell cycles of lower eukaryotes are coupled to a clock: life's slow dance to the music of time. D. Lloyd. In: *Cell Clocks and Cell Cycles.* (Edited by L. Edmunds), pp. 27-46. Plenum Press, New York (1984).

20. Membrane inlet mass spectrometry: applications to direct measurement of biological gaseous exchange. H. Degn, R. P. Cox & D. Lloyd. *Method of Biochem. Analysis,* Vol. 31, pp. 165-194. Edited by D. Glick. New York: J. Wiley Intersciences (1985).

21. Mass spectrometric monitoring of dissolved gases. Lloyd, D. & Scott, R. I. In: *Gas Metabolism.* Edited by R. K. Poole & C. S. Dow, pp. 239-262. Academic Press, New York (1985).

22. Mass spectrometric determinations of the effect of O_2 on methanogenesis: inhibition or stimulation? Scott, R. I., Williams, T. N., Whitmore, T. N. & Lloyd, D. In: *Gas Metabolism.* Edited by E. K. Poole & C. S. Dow, pp. 263-270. Academic Press, New York (1985).

23. The effect of O_2 on H_2 production by rumen holotrich protozoa as determined by membrane inlet mass spectrometry. Hillman, K., Lloyd, D., Scott, R. I. & Williams, A. G. In: *Gas Metabolism.* Edited by R. K. Poole & C. S. Dow, pp. 271-277. Academic Press, New York (1985). Hillman, K., Lloyd, D., Scott, R. I. & Williams, A. G.

24. Simultaneous dissolved oxygen and redox measurements: use of polarographic, bioluminescence, and mass spectrometric monitoring combined with dual wavelength spectrophotometry. D. Lloyd. In: *Gas Enzymology.* Edited by H. Degn, R. P. Cox & H. Toftlund, pp. 37-53. Reidel, Dordrecht (1985).

25. Continuous monitoring of fermentation gases in an artificial rumen system (RUSITEC) using a membrane-inlet probe on a portable quadrupole mass spectrometer. In: *Gas Enzymology.* Edited by H. Degn, R. P. Cox & H. Toftlund, pp. 201-206. Reidel, Dordrecht (1985). Hillman, K., Lloyd, D. & Williams, A. G.

26. Alcohol oxidase in *Candida boidinii,* combined spectrophotometric and oxygen measurements during ethanol inactivation. In: *Gas Enz*ymology. Edited by H. Degn, R. P. Cox & H. Toftlund, pp. 55-60. Reidel, Dordrecht (1985). Hill, D. & Lloyd, D.

27. Quadrupole mass spectrometry in the monitoring and control of fermentations. D. Lloyd, S. Bohatka & J. Szilagyi. *Biosensors* **1**, 179-212 (1985).

28. The determination of photochemical action spectra. D. Lloyd. In: *Spectrophotometry and Spectrofluorimetry - A Practical Approach.* Edited by C. L. Bashford & D. A. Harris. IRL Press, Washington D.C. (1986).

29. Temperature-compensated ultradian rhythms in lower eukaryotes: timers for cell cycles and circadian events? D. Lloyd & S. W. Edwards. *Advances in Chronobiol.* Part A (J. Pauly & L. E. Scheving), pp. 131-151. Alan R. Liss Inc. (1987).

30. Temperature-compensated ultradian variation in cellular protein content of *Acanthamoeba castellanii* revisited. N. Marques, S. W. Edwards, J. C. Fry, F. Halberg & D. Lloyd. *Advances in Chronobiology,* Part A, pp. 105-119, (edited by J. Pauly & L. E. Scheving). Alan R. Liss, New York (1987).

31. Temperature-compensated ultradian rhythms in lower eukaryotes: periodic turnover coupled to a timer for cell division. D. Lloyd & S. W. Edwards. *Chronobiology and Chronomedicine*, pp. 69-73 (Hildebrand, G., Moog, R. & Raschke, eds.) (1987).

32. Methanogenesis in mesophilic and thermophilic anaerobic digesters, monitoring and control based in dissolved hydrogen. T. N. Whitmore & D. Lloyd. In: *Aquatech 1986, Amsterdam, Conference Proceedings,* pp. 15-18, Industrial Presentations, Schiedam, The Netherlands.

33. A temperature-compensated ultradian clock explains temperature-dependent quantal cell cycle times. D. Lloyd & F. Kippert. *Soc. Expt. Biol. Symp. Effect of Temperature on Animal Cells,* pp. 135-155. (Bowler, K. & Fuller, B. J., eds.). Cambridge: Society of Biologists (1987).

34. Biochemistry of the cell cycle. D. Lloyd. *Biochem. J.* **242**, 313-321 (1987).

35. Methanogenesis in the rumen: mass spectrometric monitoring. D. Lloyd, A. G. Williams, K. Hillman and T. N. Whitmore. In: *Mass Spectrometry in Biotechnological Process Analysis and Control* (E. Heinzle & M. Reuss, eds.) pp. 91-103. Plenum Press (1987).

36. Methanogenesis in mesophilic and thermophilic anaerobic digesters: monitoring and control process on dissolved hydrogen. In: *Mass Spectrometry in Biotechnological Process Analysis and Control* (E. Heinzle & M. Reuss, eds.) pp. 143-161, Plenum Press (1987).

37. Training of the Scientist. D. Lloyd. In: *The Contribution of Science to Cancer Medicine* (T. J. Deeley, D. Lloyd and W. H. Sutherland, eds.) pp. 17-23. Clifton House Press, Cardiff (1987).

38. The Scientist in University. D. Lloyd. In: *The Contribution of Science to Cancer Medicine* (T. J. Deeley, D. Lloyd and W. H. Sutherland, eds.) pp. 27-28, Clifton House Press, Cardiff (1987).

39. Portable mass spectrometry: a potentially useful ecological tool for simultaneous, continuous measurement of gases *in situ* in soils and sediments. L. Boddy and D.

Lloyd. In: *Field Methods in Terrestrial Ecology Nutrient Cycling* (eds. Harrison, A. F. & Ineson, P.), pp. 139-151. Springer Verlag, Berlin (1989).

40. Theory and applications of membrane inlet mass spectrometry in Microbiology. D. M. Gaunt and D. Lloyd. *Lab. Practice* **36**, 109-111.

41. Hydrogen production by rumen holotrich protozoa - effects of oxygen and implications for metabolic control by *in situ* conditions. D. Lloyd, K. Hillman, N. Yarlett & A. G. Williams. *J. Protozool.* **36**, 205-213 (1989).

42. Life's dance to the music of time: the clocks within us. D. Lloyd. *School Science Review* **70**, 17-23 (1988).

43. The world of the microbiologist. D. Lloyd. *Biology Education* **5**, 4-6 (1988).

44. Biotechnology in Malaysia. J. Kader, O. A. Samah & D. Lloyd. *International Industrial Biotechnology* **8**, 13-16 (1988).

45. Biotechnology in India. V. V. Modi & D. Lloyd. *International Industrial Biotechnology* **9**, 18-19 (1989).

46. Oxygen and aerotolerant protozoa: studies using non-invasive techniques. D. Lloyd, N. Yarlett, K. Hillman, T. A. Paget, A. Chapman, J. E. Ellis & A. G. Williams. In: *Molecular Biology and Biochemistry of Anaerobic Protozoa* (D. Lloyd, G. H. Coomb & T. A. Paget, eds.) pp. 1-21. Harwood Academic, Chur.

47. Protozoal contribution to ruminal oxygen utilization. J. E. Ellis, D. Lloyd & A. G. Williams. In: *Molecular Biology and Biochemistry of Anaerobic Protozoa* (D. Lloyd, G. H. Coombe & T. A. Paget, eds.) pp. 32-41. Harwood Academic, Chur.

48. Respiratory activity in *Giardia* spp. T. A. Paget, D. Lloyd, E. J. Jarroll, P. Manning & D. G. Lindmark (1989). In: *Molecular Biology and Biochemistry of Anaerobic Protozoa* (D. Lloyd, G. H. Coomb & T. A. Paget, eds.) pp. 156-201. Harwood Academic, Chur.

49. Effects of growth with reducing agents on the metabolism and morphology of *Trichomonas vaginalis* CINIH. T. A. Paget & D. Lloyd. In: *Molecular Biology and Biochemistry of Anaerobic Protozoa* (D. Lloyd, G. H. Coomb & T. A. Paget, eds.) pp. 123-136. Harwood Academic, Chur.

50. Aerotolerantly anaerobic protozoa: some unsolved problems. In: *Molecular Biology and Biochemistry of Anaerobic Protozoa* (D. Lloyd, G. H. Coombs & T. A. Paget, eds.) pp. 267-286. Harwood Academic: Chur.

51. Aerobic denitrification in sediments and bacterial suspensions: studies by membrane inlet mass spectrometry. D. Lloyd, K. J. P. Davies & L. Boddy. *Mitteilungen Deutchen Bodenkundlichen Gesellschaft* **60**, 291-298 (1990).

52. Measurements in Microbiology. D. Lloyd (1991). *Encyclopaedia of Science,* ed. P. A. Payne, pp. 263-267. Pergammon Press.

53. Role of hydrogen in the growth of mutualistic methanogenic cocultures. J. Benstead, D. B. Archer & D. Lloyd (1990). *Microbiology and Biochemistry of Strict Anaerobes Involved in Interspecies Hydrogen Transfer.* (J.-P. Bélaich, M. Bruschi & J.-L. Garcia, eds.) pp. 161-171. Plenum Press, New York.

54. Hydrogen and methanogenesis in rumen liquor and in rumen ciliate/methanogen cocultures. J. Ellis, K. Hillman, A. G. Williams & D. Lloyd. *Interspecies Hydrogen Transfer*, *ibid.* pp. 373-376.

55. Hydrogen production by rumen ciliate protozoa. J. Ellis, K. Hillman, A. G. Williams & D. Lloyd. *Interspecies Hydrogen Transfer, ibid.* 377-379.

56. Effects of various headspace gases on the production of volatile fatty acids by rumen ciliate protozoa. K. Hillman, A. G. Williams & D. Lloyd. *Interspecies Hydrogen Transfer, ibid.* pp. 395-397.

57. Separation of subcellular organelles from yeasts. D. Lloyd & T. G. Cartledge. In: *The Yeasts.* Vol. 4, pp. 121-174. 2nd Edition (Rose, A. H. & Harrison, J. S., eds.). Academic Press, London (1990).

58. The measurement of oxygen using luminescent bacteria. In: *Bioinstrumentation: Research Developments and Applications* pp. 301-315 (Wise, D. L., ed.). Butterworths: Boston (1990).

59. The effects of environmental factors on the metabolism of *Giardia* and *Trichomonas.* D. Lloyd and T. A. Paget. In: *Biochemical Protozoology.* Edited by G. Coombs and M. North, pp. 92-101 (1991). Taylor & Francis, London.

60. The Ultradian Clock: Timekeeping for intracellular dynamics. D. Lloyd and E. I. Volkov. In: *Complex Dynamics and Biological Evolution.* Edited by E. Mosekilde, pp. 51-60 (1991)

61. The Occurrence and Functions of Ultradian Rhythms. D. Lloyd and M. Stupfel. *Biol. Rev.* **61**, 275-299 (1991).

62. Membrane inlet mass spectrometric monitoring and control of fermentations using liquid phase gas measurements. D. Lloyd, T. N. Whitmore, T. A. Paget, K. Hillman and J. Benstead. In: *Mass Spectrometry Applied to Biological Systems* (Zygun, A., Heinzle, E. & Lloyd, D., eds.) Plenum Press.

63. Membrane inlet mass spectrometry: probing the rumen ecosystem. D. Lloyd, J. E. Ellis, K. Hillman & A. G. Williams. Ecosystems: Microbes: Food. *J. Appl. Bact. Symp. Suppl.* **73**, 155-163 (1992).

64. Intracellular timekeeping: epigenetic oscillations reveal functions of an ultradian clock. D. Lloyd. In: *Ultradian Rhythmicity in Life Processes: An Inquiry into Fundamental Principles of Chronobiology and Psychobiology.* D. Lloyd & E. C. Rossi, eds., pp. 5-22. Springer-Verlag, London (1992).

65. Epilogue: from molecules to mind. D. Lloyd & E. Rossi. In: *Ultradian Rhythmicity in Life Processes: An Inquiry into Fundamental Principles of Chronobiology and Psychobiology.* D. Lloyd & E. C. Rossi, eds., pp. 403-405. Springer Verlag (1992).

66. Mass Spectrometry. D. Lloyd. In: *Food Process Monitoring Systems* (A. Pinder & G. Godfrey, eds.). Blackie, Glasgow (1993).

67. Flow cytometry - a technique waiting for microbiologists. D. Lloyd. In: *Flow Cytometry in Microbiology* (D. Lloyd, ed.), pp. 1-10. Springer Verlag, London (1993).

68. Flow cytometric analysis of heterogeneous bacterial populations. R. Allman, R. Manchee & D. Lloyd. In: *Flow Cytometry in Microbiology* (D. Lloyd, ed.), pp. 27-48. Springer Verlag, London (1993).

69. Uses of membrane potential sensitive dyes with bacteria. D. Mason, R. Allman & D. Lloyd. In: *Flow Cytometry in Microbiology* (D. Lloyd, ed.), pp. 67-81. Springer-Verlag, London (1993).

70. Appendix: Spectral characteristics of some fluorescent dyes and excitation sources. D. Lloyd in *Flow Cytometry in Microbiology* (D. Lloyd, ed.), pp. 181-184. Springer Verlag, London (1993).

71. Biological rhythms as organization and information. D. Lloyd and E. R. Rossi. Biol. Rev. 68, 563-577 (1993).

72. Biological activities of symbiotic and parasitic protists in low O2 environments. D. Lloyd & A. G. Williams. In: Advances in Microbial Ecology, Vol. 13 pp. 211-262 (J. G. Jones, ed.). Plenum Press, New York (1993). The ultradian clock interacts with the mitotic oscillator to give dispersed and quantized cell cycle times. Noisy or chaotic trajectories?

73. D. Lloyd, A. L. Lloyd, L. F. Olsen, E. I. Volkov & M. N. Stolyarov. In: Future Directions in Non-linear Dynamics in Physical and Biological Systems (P. L. Christiansen, J. C. Eilbeck and R. D. Parmentier, eds.). Plenum Press, New York, pp. 527-532 (1993).

74. Membrane Inlet Tandem Mass Spectrometry for fast identification of volatile metabolites produced by microorganisms. F. R. Lauritsen and D. Lloyd. In: Mass Spectrometry for Characterisation of Microorganisms, pp. 91-106 (Fenselau, C., ed.). American Chemical Society Symposium Series 541, Washington (1993).

75. Temperature adaptation in *Acanthamoeba castellanii.* A. L. Jones, H. C. Hann, D. Lloyd & J. L. Harwood. In: *The Temperature Adaptation of Biological Membranes.* (A. Cossins, ed.), pp. 119-128. Portland Press, Colchester (1994).

76. The control of the cell division cycle. J. R. Dickinson and D. Lloyd. In: *Principles of Medical Biology: Developmental Biology. Vol II.* (E. Bittar, ed.), pp. 1-12. JAC Press Greenwich Comm. (1998).

77. Aerobic denitrification in soils and sediments: from fallacies to facts. D. Lloyd. In: *Trends in Ecology and Evolution* **8**, 352-356 (1993). *Correspondence* **9**, 149 (1994).

78. *Giardia duodenalis*: Growth of trophozoites in complex media using precursors of cysteine biosynthesis with the third-reducing agent mercaptosuccinate. J. E. Ellis, T.

A. Paget, D. Cole, S. L. Erlandsen & D. Lloyd. In *Giardia: from Molecules to Disease* (Ed. R. C. A. Thompson, J. A. Reynoldson, & A. L. Lymbery) pp. 192-193 CAB International, Wallingford.

79. Intracellular timekeeping by an ultradian clock. D. Lloyd and F. Kippert. In: *Cell Biology International* **17**, 1047-1052 (1994).

80. A controlled chaotic attractor controls life. In: *What Is Controlling Life? 50 Years After Erwin Schroedinger's What is Life?,* pp. 77-80. Ed. E. Gnaigner, F. N. Gellerich, M. Wyss, R. Steinlechner and G. F. Azzone. University of Innsbruck Press (1994).

81. Exchange of trace gases between land and atmosphere. D. Lloyd and D. S. Jenkinson. *Trends Ecol. Evolut.* **10**, 2-4 (1995).

82. Hypothesis: a Controlled Chaotic Attractor Constitutes the Central Oscillator of the Circadian Clock. D. Lloyd and A. L. Lloyd. *Bull. Groupe d'Etude des Rythmes Biologiques* **26**, 188-192 (1994).

83. Microbial process and the cycling of atmospheric trace gases. D. Lloyd. *Trends Ecol. Evolution* **10**, 476-478 (1995).

84. Vigour, vitality and viability of microorganisms. D. Lloyd and A. J. Hayes. *FEMS Microbiol. Lett.* **133** 1-7 (1995).

85. Problems and developments in methodology. A. Holmes & D. Lloyd. In: *Microbiology of Atmospheric Trace Gases* Ed J. C. Murell & D. P. Kelly. Springer-Verlag, Berlin (1996).

86. Circadian and ultradian clock-controlled rhythms in unicellular microorganisms. (1997) D.Lloyd *Adv. Microbial Physiol. Biochem* **39**, 291-338.

87. Temporal organization of the cell division cycle in eukaryotic microbes. D.Lloyd & D.A.Gilbert. In. Microbial Responses to Light and Time (Eds. MX Caddick, S. Baumberg, DA Hodgson, MK Phillips-Jones *Soc. Gen. Microbiol. Symp.* **56,** 251-278. Cambridge University Press (1998)

88. Confocal laser scanning microscopy of environmental samples. Lloyd, D., Hayes, A. J., Hill, B., Durrant, L. and Ralphs, J. R. In: Environmental Monitoring (Ed. C. Edwards) Humana Press, Totowa, NJ, pp.251- 268 (1999).

89. The living cell, a complex, autodynamic system. Gilbert, D. & Lloyd, D. *Cell Biol. Int.* **24**, 569-580 (1970).

90. Ultradian rhythms: a time-frame for intracellular coordination Lloyd, D. (1998) *Gensai Doubutsukakui Zashi (Protista Journal)*. **31**, 15-18.

91. Too much O_2? Lloyd, D. & Biagini, G. A. *Microbiology* **144,** 1131 (1998).

92. Biological Rhythms in Human Health and Illness. Chandrashekaran, M. K. & Lloyd, D

93. Flow cytometry of yeasts D.Lloyd. (1999) in *Current Protocols in Flow Cytometry* Ed. J. Wiley, 11.10.1. John Wiley.

94. Microbial Infections D. Lloyd, D. J. Mason & M. T. E. Suller (1999) in *Cytometric analysis of cell phenotype and function* Ed. D. A. McCarthy, & M. G. Murray. Cambridge University Press.

95. Chaotic dynamics and fractal space in Biochemistry: Simplicity underlies complexity. Aon, M., Cortassa, S., & Lloyd, D. *Cell Biol. Int.* **24**, 581-587, (2000).

96. Redox Cycling of intracellular thiols: state variable for ultradian, cell division cycle and circadian cycles. D. Lloyd and D. B. Murray in *Redox Behaviour of Circadian Systems* ed. T. Vanden Driessche et al. Kluwer Academic, Holland. 85-94 (2000).

97. Ultradian Clock Timekeeping: Periodic Quasiperiodic and Chaotic Outputs. D. Lloyd, A. L. Lloyd, L. F. Olsen, M. N. Stolyanov & E. I. Volkov (1999).

98. Circadian Control of Gas Production (CO_2 and CH_4) in a peat bog. Lloyd, D., Thomas, K. L., Benstead, J., Davies, K. L. & Lloyd, S. H. (1999).

99. Transient and oscillatory states of continuous culture. D. Lloyd In. *Principles of Bioprocess and Metabolic Engineering* ed. M. A. Aon, S. Cortassa, A. A. Inglesias, D. Lloyd World Scientific Press, Singapore (2000).

100. Editorial: *Acanthamoeba* spp., antimicrobial agents and contact lenses. N. A. Turner, A. D. Russell, J. R. Furr & D. Lloyd (1999) Science Progress **82**, 1-8.

101. From bright field microscopy to fluorescence methods and confocal microscopy. D. Lloyd and G. Dinsdale. In: *Brewing yeast fermentation performance*, (Ed. K. Smart), pp.3-9. Blackwell Oxford, (2000).

102. How to avoid oxygen. D. Lloyd. *Science*, **286**, 249 (1999).

103. Encystation in *Acanthamoeba castellanii:* Development of biocide resistance. D. Lloyd, N. A. Turner, W. Khunkitti, A. C. Hann, J. R. Furr and A. D. Russell. *J. Euk. Microbiol.* **48**, 11-16, (2000).

104. Why homeodynamics, not homeostasis? D. Lloyd, M. Aon & S. Cortassa. *The Scientific World,* **1,** 133-145 (2001). http://216.25.242.189/tsw/:Publish/pubs_list.html

105. Applications of Membrane inlet mass spectrometry in bioreactor technology. G. Cooks & D. Lloyd. In: G. Cooks & T. Kotiaho (eds.) *Membrane Inlet Mass Spectrometry.*

106. Microbial differentiation and changes in susceptibility to antimicrobial agents. N. A. Turner, J. C. Harris, A. D. Russell & D. Lloyd. *J. Appl. Microbiol.* **89**, 751-759, (2000).

107. Oxygen Homeodynamics in *Giardia.* In: "*Giardia a Cosmopolitan Organism"* ed. B. E. Olson, M. E. Olsen & P. Wallis, CAB International (2002)

108. *Allium sativum* (Garlic) and some of its components are effective antigiardials *in vitro ibid*. pp. 187-199

109. A *Giardia* feast. D. Lloyd & P. Wallis. *Trends Parasitol.* **17,** 115-117 (2001).

110. Past Times: Biochemist Par Excellence – Krebs Centenary Symposium. *The Biochemist*, **23,** 57-60 (2001).

111. Antimicrobial properties of *Allium sativum* (garlic) J. C. Harris, S. L. Cottrell, S. Plummer & D. Lloyd. *Appl. Microbiol. Biotechnol.* **57,** 282-286 (2001).

112. Antigiardial drugs. J. C. Harris, S. Plummer & D. Lloyd. *Appl. Microbiol. Biotechnol.* **57,** 614-619 (2001).

113. Non-invasive methods and the investigation of organisms at low O_2 levels. D. Lloyd. *Adv. Appl. Microbiol*. **51**, 155-183 (2002).

114. Hydrogen production occurs in the human pathogen, *Giardia intestinalis,* a eukaryotic without hydrogenosomes. D. Lloyd, J. R. Ralphs & J. C. Harris. *Trends in Parasitology* **18**, 155-156 (2002).

115. *Giardia*: highly evolved parasitic or early-branching eukaryote. D. Lloyd & J.C.Harris. *Trends in Microbiology* **10**, 122-127 (2002).

116. *Current* trends in research into the waterborne parasite, *Giardia*. S. Lane & D. Lloyd. *Crit. Rev. Microbiol*. **28,** 123-147, (2002).

117. Recent advances in treatment of amoebal eye infections. R.Kumar & D. Lloyd. *Infect. Clinical Disease* **35,** 434-441 (2002).

118. Tribute: Professor V. Ya Brodsky. D. Lloyd, K. Hammond, J. Calvert-Evers, D. Gilbert & C. Ferreira. *Cell Biol. Intl*. **25**, 960-961 (2002).

119. Wales is not part of England. W. H. Evans & D. Lloyd. *Science* **295,** 797 (2002).

120. Boiling muds and scalding soils: new species and enzymes for the future. D. Lloyd *Microbiology Today* **29,** 64-66 (2002).

121. Biogenic controls on trace gas fluxes in Northern Wetlands. T.Christiansen, D. Lloyd *et al.* IGBP Global Change Newsletter (2002) **51**, 16, 9-15.

122. Iron-sulphur proteins in anaerobic eukaryotes. R. Cammack, D.S. Horner, M. van der Giezen, J. Kulda & D. Lloyd. In: Physiology and biochemistry of anaerobic bacteria. L. Ljungdahl, M.W.W. Adams, L.L. Barton, J.G. Ferry & M.K. Johnson (ed.) pp. 113-127, Springer, N.Y. (2003).

123. Anaerobic protists: some misconceptions and confusions. D. Lloyd. *Microbiology* (2004) 150 (5) 1115-6

124. Systems dynamics of biology. D.Lloyd. *J. Appl. Biomed*. **3**, 1-12 (2005).*

125. Ultradian metronome: timekeeper for orchestration of cellular coherence. D. Lloyd & D.B.Murray *Trends Biochem. Sci*. **30**, 373-377 (2005). *

126. Ultradian rhythms and clocks in plants and yeast. D.Lloyd. *Biol Rhythm Res*. 37(4), 281-296 (2006).*

127. Respiratory oscillations in Yeasts. D. Lloyd (2007), In: *Cellular Oscillatory Mechanisms*, (eds. M. Maroto and N M Monk). Landes Bioscience and Springer Science + Business Media LLC pp. 118-140, and Adv. Exp. Med. Biol. **641**, 118-140 (2008)

128. Rhythms, clocks and deterministic chaos and rhythms in unicellular organisms. (2007) D. Lloyd In: *Oscillations in Plants: Phenomenology, Mechanisms, and Adaptive Significance* (eds. S. Mancuso and S. Shabala), Springer-Verlag, Berlin Heidelberg, pp. 267-294

129. The temporal landscape of eukaryotic growth. Lloyd, D. and Murray, D.B. *FEBS Lett*. **580**, 2830-2835 (2006).

130. Hydrogen sulfide: toxic, but essential to microbial life. D.Lloyd (2007), *Trends Microbiol*. (2006) **14**, 456-462

131. Redox rhythmicity: clocks: at the core of temporal coherence. Lloyd D. and Murray, D.B. Bioessays. 29, 465-473 (2007)

132. The Living State: A Heterarchy of Time Domains. D. Lloyd, E.L. Rossi and M.R. Roussel in Ultradian Rhythms from Molecules to Mind: a New Vision of Life (2008) Ed. D.Lloyd and E.L. Rossi, pp. 1-10. Springer-Verlag, Berlin.

133. The Ultradian Clock (period about 40 min) in *Saccharomyces cerevisiae*. D. Lloyd, D.B. Murray, R.R. Klevecz, J. Wolf and H. Kuriyama in Ultradian Rhythms from Molecules to Mind: a New Vision of Life (2008) Ed. E. Lloyd and E.L. Rossi, pp. 11-42. Springer-Verlag, Berlin.

134. Self-organised Intracellular Ultradian (circahoralian) rhythms provide direct cell-cell communication. V.Y. Brodsky and D. Lloyd in Ultradian Rhythms from Molecules to Mind: a New Vision of Life (2008) Ed. D. Lloyd and E.L. Rossi. pp. 85-104. Springer-Verlag, Berlin.

135. Epilogue (ibid) pp. 431-440.

136. Oscillations, Synchrony and deterministic chaos. D. Lloyd In (Lüttge, et al eds.) *Progress in Botany* Vol. **70**, 69-91 (2008).

137. Perspectives: Biological time is fractal: early events reverberate over a lifetime. D. Lloyd (2008) J. Biosci. **33** (1), 9-19.

138. New Luminophores for Biological Imaging (2012) Reviews in Fluorescence 2010 **D. Lloyd,** M.P. Coogan & S. J. A. Pope (eds. C. Geddes). Springer, , Science + Business Media New York, Dordrecht, Heidelberg, London, pp.15-44

139. Chaos in Biochemistry and Physiology (2011) Aon M.A., Cortassa S and Lloyd D. in Mayers RA (ed.) New Encyclopedia of Molecular and Cellular Biology and Molecular Medicine: Systems Biology. Wiley-VCH Verlag GmbH & Co. KGaA pp. 37

140. Composition and antimicrobial properties of sulphur-containing constituents of garlic (*Allium sativum*). (2011) CF Williams & D Lloyd In : Ed. Valgimiglia , Essential Oils as Natural Food additives: Composition, Applications, Antioxidant and Antimicrobial Properties Nova Science, New York, pp. 287-304.

141. *Spironucleus* species: economically-important fish pathogens and enigmatic single-celled eukaryotes. CF Williams D Lloyd SL Poynton A Jorgensen COM Millet & J Cable (2011). J. Aquaculture Research and Development S2 pp.1-13

142. Temporal partitioning of the Yeast Cellular Network. (2014) DB Murray, C Amariei, K Sasidharan, R Machne, MA Aon & D Lloyd. In Systems Biology of Metabolic and Signalling Networks: Energy, Mass and Information Transfer. in (eds. MA Aon, V Saks & U Schattner. Springer Heidelberg, New York, Dordrecht, London pp. 323-350.

143. From Physiology, genomes, systems and self organization to systems biology: the historical roots of a twenty-first century approach to complexity. (2014) MA Aon D Lloyd & V Saks. In (eds.) M A Aon, V Saks & U Schlattner, Systems Biology of Metabolic and Signaling Networks: Energy, Mass and Information Transfer. Springer Heidelberg, New York, Dordrecht, London, pp. 3-18

144. Alfred Russel Wallace: Self-educated Genius and Polymath. (2015) D Lloyd. In: Progress in botany, vol.76 (ed. U Luttge & W Beyschlag. Springer International Publishing Switzerland, pp.43-73

145. Rhythms, clocks and deterministic chaos and rhythms in unicellular organisms. (2015) D Lloyd M A Aon & S Cortassa. In: *Oscillations in Plants: Dynamic Responses in a Dynamic Environment 2nd edition* (eds. S. Mancuso and S. Shabala), SpringerVerlag, Cham. Heidelberg New York Dordrecht London, pp.367-399

146. Avoid excessive oxygen levels in experiments with organisms, tissues and cells. D Lloyd & C F Williams. (2015) Advances in Microbial Physiology (ed. R K Poole) vol. 67, 293 – 314

147. *Saccharomyces cerevisiae*: oscillatory orchestration of growth. D Lloyd. (2019) In (eds. T. Satyanarayana, S.K. Deshmukh & M.V. Deshpande Advdvances in Frontiers in Mycology & Mycotechnology. Singapore Pte. Ltd.: Springer Nature, pp. 181-214

148. Functional imaging of a model unicell: *Spironucleus vortens* as an anaerobic but aerotolerant flagellated protist. (2020) D Lloyd, CO Millet, CF Williams, AJ Hayes, SJA Pope, I Pope, P Borri, W Langbein, LF Olsen, MD Isaacs & A Lunding. Advances in Microbial Physiology, (ed. RK Poole) vol. 76, 41-79.

.

149. Oscillations, rhythms and synchronized timekeepers: key signatures of life. (2020) D Lloyd. In 'Physics of Biological Oscillations'(eds. P. McClintock and A. Stefanovska),. pp.225-244. Springer Nature Switzerland AG.

150. Lloyd, David. 2021. Oscillations, rhythms and synchronized time bases: the key signatures of life. In A. Stefanovska and P. V. E. McClintock (eds.), *Physics of Biological Oscillators*, Understanding Complex Systems, pp.225-244. Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-030-59805-1_14

151. Yarlett, N. Jarroll, E.J & Lloyd, D 2022. Protists: single-celled organisms. In (Eds.) Elsevier

152. Lloyd, D. 2022. Chronobiology of single-celled organisms. In: (Eds) Elsevier

D. ABSTRACTS OF ORAL COMMUNICATIONS OR POSTERS AND BOOK REVIEWS

1. A Hand Microtome. *The Microscope* **11**, 96 (1957).

2. The Slide Dispenser. *The Microscope* **11**, 183 (1957).

3. The presence of isocitrate lyase in *Prototheca zopfii.* A. G. Callely & D. Lloyd. *Biochem. J.* **88**, 18P (1963).

4. Growth of *Prototheca zopfii* on propionate. D. Lloyd & A. G. Callely. Fed. Europe Biochem. Soc. 2nd Meeting, Vienna, A 68 (1965).

5. The cell wall of *Prototheca zopfii.* G. Turner & D. Lloyd. *Biochem. J.* **99**, 56P (1966).

6. Propionate metabolism in *Aspergillus glaucus.* S. Richards & D. Lloyd. *Biochem J.* **99**, 56P (1966).

7. Mitochondria from *Polytomella caeca.* D. A. Evans & D. Lloyd. *J. Protozool.* 13 Suppl. **119** (1966).

8. Inducible enzymes in mitochondria of *Polytomella caeca.* D. A. Evans & D. Lloyd. *Biochem. J.* **103**, 21-22P (1967).

9. The effect of chloramphenicol on *Polytomella caeca.* D. A. Evans & D. Lloyd. *Biochem. J.* **103**, 21P (1967).

10. Metabolic changes during the encystment of *Hartmanella castellanii.* A. J. Griffiths, D. Lloyd, G. Roach & D. E. Hughes. *Biochem. J.* **103**, 21P (1967).

11. Adaptive formation of phosphorylation coupled oxidations in *Polytomella caeca.* D. A. Evans & D. Lloyd. Fed. Europ. Biochem. Soc., Prague. Proc. A 820 (1968).

12. Electron transport in the flagellate, *Polytomella caeca.* D. Lloyd & D. A. Evans. Fed Europe. Biochem. Soc. A 821 (1968).

13. The mitochondria of *Tetrahymena pyriformis* strain TS. G. Turner & D. Lloyd. Fed. Europ. Biochem. Soc., Prague. Proc. A 822 (1968).

14. Subcellular fractionation of *Tetrahymena pyriformis* by zonal centrifugation: changes in enzyme distribution during the growth cycle. R. Brightwell, D. Lloyd, G. Turner & S. E. Venables. *Biochem. J.* **109**, 42P (1968).

15. Subcellular fractionation of *Polytomella caeca* by zonal centrifugation. R. Cooper, M. G. Jones, S. E. Venables & D. Lloyd. *Biochem. J.* **114**, 65P.

16. The electron transport chain of *Tetrahymena pyriformis* strain ST. G. Turner, D. Lloyd & B. Chance. *Biochem. J.* **114**, 91P (1969).

17. Subcellular fractionation of *Saccharomyces carlsbergensis* by zonal centrifugation. T. G. Cartledge, J. Burnett, R. Brightwell & D. Lloyd. *Biochem. J.* **115**, 56P (1970).

18. Enzyme distributions in an amoeba during encystment. S. M. Bowen, A. J. Griffiths & D. Lloyd. *Biochem. J.* **115**, 41P (1970).

19. The effect of growth with chloramphenicol on the mitochondria of *Tetrahymena pyriformis* strain ST. G. Turner & D. Lloyd. *Biochem. J.* **116**, 41P (1970).

20. Subcellular fractionation of aerobically grown *Saccharomyces carlsbergensis* by zonal centrifugation. T. G. Cartledge, L. Howells & D. Lloyd. *Biochem. J.* **116**, 26P (1970).

21. Subcellular fractionation of aerobically grown *Saccharomyces carlsbergensis* by zonal centrifugation. T. G. Cartledge, L. Howells & D. Lloyd. Biochem. J. **116**, 40P (1970).

22. Changes in subcellular distribution during respiratory adaptation of *Saccharomyces carlsbergensis.* D. Lloyd, L. Howells & T. G. Cartledge. *Biochem. J.* **116**, 25P (1970).

23. A model for the control of mitochondrial biogenesis in *Tetrahymena,* based on the effect of chloramphenicol and the behaviour of mitochondria in synchronised cultures. D. Lloyd, G. Turner, R. K. Poole, W. G. Nicholl, W. T. Coakley & G. I. Roach. FEBS, abstract A 716, Varna (1971).

24. Terminal oxidases of *Tetrahymena pyriformis.* D. Lloyd & B. Chance. *J. Protozool.* A. **19** Suppl. 136 (1972).

25. Oxygen uptake and activity of respiratory enzymes in synchronous cultures of *Schizosaccharomyces pombe.* R. K. Poole & D. Lloyd. *Fed. Europ. Biochem. Soc, Amsterdam,* Proc. A 597 (1972).

26. Cyanide-insensitive respiration in *A.castellanii.* S. W. Edwards & D. Lloyd. 11th FEBS Meeting, Copenhagen, Abstract No. 307 (1977).

27. Changes in respiratory activities of *Acanthamoeba castellanii* in exponential and synchronous cultures. S. W. Edwards, A. H. Chagla, A. J. Griffiths & D. Lloyd. Vth Int. Congress of Protozoology, New York, 1977.

28. Oscillatory energy production and utilisation coupled to discontinuous macromolecular synthesis (periodic turnover) in the cell cycle of *Acanthamoeba castellanii.* S. W. Edwards & D. Lloyd. *Soc. Gen. Mic. Quarterly* **6**, 23 (1978).

29. Changes in pool sizes of adenine nucleotides and ATPase in starved and synchronous cultures of *Schizosaccharomyces pombe* 972 h^-. G. H. El'Khayat & D. Lloyd. VI Int. Specialised Symp. on Yeast, Montpellier S112 (1978).

30. Oscillations in energy-yielding and energy-requiring reactions during the growth of synchronous cultures of protozoa and yeast lie in the epigenetic time domain. D. Lloyd & S. W. Edwards. *Ber. Bunsenges. Phys. Chem.* **84**, 417 (1980).

31. Structure, function and biogenesis and genetics of mitochondria. D. Lloyd & G. Turner. *Soc. Gen. Mic. Quarterly* **7**(2), 60-61 (1980).

32. Oscillatory expression of mitochondrial activities and components during the cell cycle of *Acanthamoeba castellanii* is coupled to a clock. D. Lloyd & S. W. Edwards. *Soc. Gen. Mic. Quarterly* **8**, 25 (1980).

33. Hydrogenosomes of the rumen protozoon *Dasytricha ruminantium* Schuberg. N. Yarlett, A. G. Williams & D. Lloyd. *Soc. Gen. Microbiol. Quarterly* **8**, 130 (1981).

34. Respiration of *Tritrichomonas foetus.* D. Lloyd, T. Ohnishi, D. G. Lindmark & M. Muller. Int. Symp. Trichomoniasis Abstract, Bialystock, Poland (1981).

35. The cellular clock in *Acanthamoeba castllanii.* D. Lloyd & S. W. Edwards. VI Int. Congress of Protozoology, Abstract 221, Warsaw (1981).

36. Hydrogenosomes of the rumen protozoon *Dasytricha ruminantium* Schuberg. N. Yarlett, D. Lloyd & A. G. Williams. VI Int. Congress of Protozoology, Abstract 397, Warsaw (1981).

37. Temperature-compensated epigenetic oscillations: timing of cell division cycles and circadian rhythms? D. Lloyd & S. W. Edwards. In: *Phenomenes Non-Lineares de la Dynamique Chimique.* Springer-Verlag, Berlin (1982).

38. Control of mitochondrial development in *Acanthamoeba castellanii* by an epigenetic oscillator with clock-like properties. D. Lloyd, S. W. Edwards, J. L. Williams & J. B. Evans. 2nd Europ. Bioenergetics Congress, Lyon (1982).

39. Hydrogenosomes in entodiniomorphs. N. Yarlett, A. G. Williams, G. Coleman & D. Lloyd. *Soc. Gen. Microbiol. Quarterly* **4**(3), 125 (1982).

40. The presence of oxygen in rumen liquor and mass spectrometric determinations of its effects on methanogenesis. Scott, R. I., Yarlett, N., Hillman, K., Williams, T. N., Williams, A. G. & Lloyd, D. *Soc. Gen. Microbiol. Quarterly* **10**, M19 (1983).

41. Photochemical action spectra of terminal oxidases of some lower eukaryotes determined using a liquid dye laser. Scott, R. I. & Lloyd, D. *Soc. Gen. Microbiol. Quarterly* **10**, M19 (1983).

42. Similarities between rumen ciliates and trichomonads: both possess hydrogenosomes. Lloyd, D., Williams, A. G., Yarlett, N. & Hillman, K. *Protistologica* **19** 465 (1983).

43. The effect of oxygen on hydrogen production by rumen holotrich protozoa as determined by using membrane inlet mass spectrometry. Hillman, K., Lloyd, D., Scott, R. I. & Williams, A. G. *Soc. Gen. Microbiol. Quarterly.*

44. Mass spectrometric determinations of the effect of oxygen on methanogenesis: Inhibition or stimulation? Scott, R. I., Williams, T. N., Whitmore, T. N. & Lloyd, D. *Soc. Gen. Microbiol. Quarterly.*

45. Denitrification in *Paracoccus denitrificans* studied by membrane inlet mass spectrometry. Davies, K. J. P. & Lloyd, D. Poster: Gas Enzymology Meeting, Odense, Denmark (1984).

46. Oxygen effects in *Trichomonas vaginalis* ATCC 30001 and metronidazole-resistant isolates. Yarlett, N., Yarlett, N. C. & Lloyd, D. Poster: Gas Enzymology Meeting, Odense, Denmark (1984).

47. A temperature-compensated epigenetic oscillator with an hourly period provides time-keeping for the cell cycle and possibly also for circadian-controlled phenomena. In: *Temporal Order,* pp. 323-324. Eds. Rensing, L. & Jaeger, N. I. Springer, Berlin. D. Lloyd & S. W. Edwards (1985).

48. Metronidazole radical-anion generation and inhibition of H_2 production in drug-sensitive and resistant strains of *Trichomonas vaginalis.* D. Lloyd, J. Z. Pedersen & B. Kristensen. VII Int. Cong. Protozool. Abs. Prague (1985).

49. Metronidazole-resistant clinical isolates of *Trichomonas vaginalis* have lowered O_2 affinities. N. Yarlett, N. C. Yarlett & D. Lloyd. VII Int. Cong. Protozool. Abs. Prague (1985).

50. Glucose metabolism by *Trichomonas vaginalis:* an *in vivo* C^{13} nuclear magnetic resonance study. A. Chapman, J. Williams, D. Linstead & D. Lloyd. VII Int. Cong. Protozool. Abs. Prague (1985).

51. Iron-sulphur centres in hydrogenosomes from *Trichomonas vaginalis.* A. Chapman, R. Cammack, D. Linstead & D. Lloyd. VII Int. Cong. Protozool. Abs. Prague (1985).

52. Bioactivation and drug reduction. Chairman's Summary. D. Lloyd. *Biochem. Pharmacol.* **35**, 65 (1985).

53. Temperature-compensated hourly rhythms in lower eukaryotes indicate timing for cell division and perhaps circadian events. D. Lloyd & S. W. Edwards. *Chronobiologia* **12**, 257 (1985).

54. Comparative studies of methanogenesis in thermophilic and mesophilic anaerobic digesters using membrane inlet mass spectrometry. T. N. Whitmore, M. Lazzari & D. Lloyd. Abs. 4th Int. Symp. An. Digestion. China, Nov. 1985.

55. Mass spectrometric control of the anaerobic digestion process based on levels of dissolved hydrogen. T. N. Whitmore, G. Jones & D. Lloyd. Abs. 4th Int. Symp. An. Digestion, China, Nov. 1985.

56. Ultradian rhythms in lower eukaryotes - timers for cell cycles. IInd Eur. Meeting Soc. Chronobiology, Marburg, 1968A. *J. Interdisc. Cycle Res.* **16**, 283 (1986).

57. Temperature-compensated ultradian rhythms in lower eukaryotes indicate timing for cell division and perhaps circadian events. D. Lloyd & S. W. Edwards (Abs.). *J. Interdisc. Cycle Res.* **17**, 145-146 (1986).

58. Simultaneous measurement by mass spectrometry of several gases in sediment systems. D. Lloyd, J. Hodges, K. J. P. Davies & L. Boddy. Abst. of the IVth International Symposium on Microbial Ecology, p.96 (1986).

59. The Biology of Cell Reproduction by R. Baserga (Book Review), D. Lloyd. *Bioscience* **36**, 488-489.

60. Portable mass spectrometry: a potentially useful tool for simultaneous measurement of several gases *in situ* in soil. L. Boddy, K. J. P. Davies & D. Lloyd. *Abst Inst. Terrest. Ecol.,* December 1986.

61. Methanogenesis in the rumen: mass spectrometric monitoring. D. Lloyd, A. G. Williams, T. N. Whitmore & K. Hillman. In: *Mass Spectrometry in Biotechnological Process Analysis and Control.* Abstract.

62. Methanogenesis in mesophilic and thermophilic anaerobic digesters - monitoring and control based on dissolved hydrogen. In: *Mass Spectrometry in Biotechnological Process Analysis and Control.* Abstract, 22. Lloyd, D., Whitmore, T., Jones, G. & Lazzari, M.

63. Simultaneous measurement by mass spectrometry of several gases in sediment systems. D. Lloyd, J. Hodges, K. J. P. Davies and L. Boddy. In: *Mass Spectrometry in Biotechnological Process Analysis and Control.* Abstract 18.

64. The ultradian clock times cell cycles in some lower eukaryotes. D. Lloyd and F. Kippert. Non-linear Phenomenon in Biology, Abstract 15, Dortmund, March 1987.

65. Ultradian rhythms in lower eukaryotes: outputs of a timer for intracellular processes including cell division. D. Lloyd and F. Kippert. Division and Segregation of Organelles. Abstract. Soc. Exp. Biol. York, March 1987.

66. Temporal aspects of ultradian phenomena in lower eukaryotes. D. Lloyd. Abstract, Brit. Soc. Chronobiol., Roehampton, April 1987.

67. The production of H_2O and $O^{\cdot -}$ by *Nippostrongylus brasiliensis* and *Ascaridia galli.* T. A. Paget, N. Fry and D. Lloyd. Brit. Soc. Protozool. Abstract 44P, Edinburgh, March 1987.

68. Hydrogen production by rumen holotrich protozoa: effects of oxygen and implications for metabolic control by *in situ* conditions. D. Lloyd, K. Hillman & A. G. Williams. *J. Protozool.* Abstract 21, Univ. Illinois, Champaign-Urbana, 1987.

69. Temperature-compensated ultradian clocks time protozoan cell cycles. D. Lloyd and F. Kippert. *Chronobiologia* **14**, 197 (1987).

70. Ultradian rhythms: internal timekeeping in lower eukaryotes. D. Lloyd, S. W. Edwards, H. Jenkins, A. J. Griffiths. *Bull. du Group d'Etudes des Rhythms Biologiques* **20** (1), 10 (1988).

71. The effects of various headspace gases on the production of volatile fatty acids by rumen protozoa. K. Hillman, A. G. Williams, D. Lloyd. Soc. Gen. Microbiol. Scottish Branch Meeting, Abstract, Aberdeen 1988.

72. Oxygen and "anaerobic" protozoa. D. Lloyd, N. Yarlett, K. Hillman, T. A. Paget, A. Chapman, J. E. Ellis & A. G. Williams. *J. Protozoology* (1989).

73. Protozool contribution to ruminal oxygen utilization. J. E. Ellis, D. Lloyd & A. G. Williams. *J. Protozoology (1989).*

74. Oxygen kinetics of respiration and effects of respiratory inhibition on *Giardia* muris cysts and trophozoites and *G.lambia* trophozoites. T. A. Paget, D. Lloyd, E. L. Jarroll, P. Manning & D. G. Lindmark. *J. Protozoology* (1989).

75. Effects of growth with reducing agents on the metabolism and morphology of *Trichomonas vaginalis* CINIH. T. A. Paget & D. Lloyd. *J. Protozoology* (1989).

76. Book Review: Cytochrome Systems: Molecular Biology and Bioenergetics (Papa, S., Chance, B. & Ernster, L.) 805 pp. Plenum 1987. *The Biologist* (1989).

77. Book Review: Physiological Models in Microbiology Vols I and II. (Bazin, M. J. & Prosser, J. I., eds.). CRS Press, 1988. *J. Med. Microbiol.* (1989).

78. Aerobic denitrification in an estuarine sediment and in pure cultures of bacteria. D. Lloyd, K. J. P. Davies & L. Boddy. Abst. Welsh Soils Discussion Group, Welsh Plant Breeding Station, March 8 (1989).

79. Aerobic denitrification in *Paracoccus denitrificans, Pseudomonas aeruginosa* and in an estuarine sediment studied by membrane inlet mass spectrometry. D. Lloyd, K. J. P. Davies & L. Boddy. Abst. International Workshop on Denitrification in Soil Rhizosphere and Aguifer. Giessen. March 17-19 (1989).

80. Role of hydrogen in the growth of mutualistic methanogenic cocultures. J. Benstead, D. A. Archer & D. Lloyd. Abst. Interspecies Hydrogen Transfer. FEMS Meeting, Marseille, September (1989).

81. The effects of oxygen on carbohydrate metabolism in *Giardia lamblia.* T. A. Paget, M. Raynor D. W. E. Shipp & D. Lloyd. Abst. Soc. Gen. Microbiol. Cambridge, April (1989).

82. Effects of various headspace gases on the production of volatile fatty acids by rumen ciliate protozoa. K. Hillman, D. Lloyd & A. G. Williams. Abst. Interspecies Hydrogen Transfer. FEMS Meeting, Marseille, September (1989).

83. Ruminal interspecies hydrogen transfer. J. E. Ellis, A. G. Williams & D. Lloyd. Abst. Interspecies Hydrogen Transfer. FEMS Meeting, Marseille, September (1989).

84. Isolation of bioactive peptides from *Panagrellus redivivus.* D. Smart, C. M. Preston & D. Lloyd. Abst. 12 p. British Soc. Parasitol. Southampton, March (1989).

85. Use of a mass spectrometer for the measurement of dissolved gas concentrations in nematode infected rodent and ovine small intestine. S. Finney, C. M. Preston & D. Lloyd. Abst. 24 p. British Soc. Parasitol. Southampton, March (1989).

86. Hydrogen production by rumen ciliate protozoa. J. Ellis, K. Hillman, A. G. Williams & D. Lloyd. Abst. Interspecies Hydrogen Transfer, FEMS Meeting, Marseille, September (1989).

87. Multiparameter flow cytometric analysis of heterogeneous bacterial populations. R. Allman & D. Lloyd. Abs. XIV International Meeting of Soc. Analyt. Cytol., Asheville N.C. March 18th (1990).

88. Respiratory activity in cysts of *Giardia lamblia.* T. A. Paget, E. L. Jarroll, P Manning, D. G. Manning, D. G. Lindmark & D. Lloyd. Int. Symp. Parasitology Abs. Paris (1990).

89. New insights into microbial physiology made possible by membrane-inlet mass spectrometry. Abstract. All Union Meeting Puschchino, U.S.S.R., October 1990.

90. Monitoring and control of laboratory fermentation processes by membrane-inlet mass spectrometry. All Union Meeting Pushchino, U.S.S.R., October 1990.

91. A temperature-compensated ultradian clock explains temperature-dependent quantal cell cycle times. D. Lloyd and F. Kippert. Poster, NATO Advanced Workshop: Complex Dynamics and Biological Evolution. Hindsgave Castle, Denmark (August 1990).

92. Quantized cell cycle times: interaction between a relaxation oscillator and ultradian clock pulses. D. Lloyd and E. I. Volkov. Poster, NATO Advanced Workshop: Complex Dynamics and Biological Evolution. Hindsgave Castle, Denmark (August 1990).

93. A temperature-compensated ultradian clock explains temperature-dependent quantal cell cycle times. D. Lloyd and F. Kippert. Poster, NATO Advanced Workshop: Complex Dynamics and Biological Evolution. Hindsgav Castle, Denmark Abstract Book p.5 (August 1990).

94. Quantized cell cycle times: interaction between a relaxation oscillator and ultradian clock pulses. D. Lloyd and E. I. Volkov. Poster, NATO Advanced Workshop: Complex Dynamics and Biological Evolution. Hindsgav Castle, Denmark Abstract Book p.22 (August 1990).

95. An immunological comparison of the hydrogenosomal polypeptides from *Tritrichomonas foetus* and four species of rumen ciliate protozoa. J. E. Ellis, D. G. Lindmark, A. G. Williams and D. Lloyd. Soc. Parasitol. Liverpool (1991).

96. Effects of O_2 and CO_2 on the carbohydrate metabolism of *Trichostrongylus colubriformis.* S. Finney, C. M. Preston-Meek & D. Lloyd. Brit. Soc. Parasitol. Liverpool (April 1991).

97. The ultradian clock of *Schizosaccharomyces pombe* is involved in the timing of both S phase and mitosis. F. Kippert and D. Lloyd. *Yeast Group Meeting, UMIST* (April 1991).

98. Book review: Metazoan Life Without Oxygen, edited by Christopher Bryant. Chapman & Hall, 1991. D. Lloyd, *Parasitol. Today* (1991).

99. Membrane inlet mass spectrometry probing the rumen ecosystem. D. Lloyd, J. E. Ellis, K. Hillman & A. G. Williams. *J. Appl. Bact.*

100. Effects of alcohols on the respiration and fermentation of aerated baker's yeast. H. N. Carlsen, H. Degn and D. Lloyd. 15th Spec. Yeast Symp. Riga, 1991.

101. Review of "Physiology of Biodegradative Microorgansims" (ed. C. Ratledge) in *Outlook on Agriculture.* D. Lloyd.

102. Intracellular timekeeping: epigenetic oscillations reveal functions of an ultradian clock in lower eukaryotes. Two decades of research 1971-1991. D. Lloyd, L. John, R. K. Poole, A. H. Chagla, C. Edwards, M. Statham, C. Phillips, J. Kader, J. Williams, G. El'Khayat, J. B. Evans, S. J. Jenkins, S. W. Edwards, C. Woffendin, H. Jenkins, F. Kippert and A. J. Griffiths. Abstract Gordon Conference Irsee, 1991.

103. Yeast mutants as a tool in molecular chronobiology. F. Kippert, W. Engelmann, D. Lloyd & H. Ninnemann. Abstract Gordon Conference, Irsee, 1991.

104. The ultradian clock interacts with the mitotic oscillator to give dispersed and quantized cell cycle times. Noisy or chaotic trajectories? D. Lloyd, A. L. Lloyd, L. F. Olsen. Abstract Gordon Conference Irsee, 1991.

105. A temperature-compensated ultradian clock is involved in cell cycle control in *Schizosaccharomyces pombe.* F. Kippert and D. Lloyd. Abstract Irsee Gordon Conference, 1991.

106. Oxygen affinities of clinical isolates of *Giardia lamblia.* J. E. Ellis, J. M. Wingfield, D. Cole, R. Campbell, P. F. L. Boreham & D. Lloyd. May 1992. American Soc. Microbiol. New Orleans.

107. Evolution of biological oscillators rhythms and clocks. D. Lloyd. 3rd Meeting Soc. Res. Biol. Rhythms, Jacksonville F.A. May 1992.

108. Yeast *cdc* mutants as a tool in molecular chronobiology. F. Kippert, W. Engelmann & D. Lloyd. SGM Meeting, Cardiff, April 1992.

109. The Ultradian Clock interacts with the mitotic oscillator to give dispensed and quantized cell cycle times. Noisy or chaotic trajectories? D. Lloyd, A. L. Lloyd, L. F. Olsen & E. I. Volkov. SGM Meeting Cardiff, April 1992.

110. Effect of growth with ethanol on the ethanol inhibitor of fermentation and membrane fluidity in *Saccharomyces cerevisiae.* D. Lloyd, S. Morrell, H. Carlsen, H. Degn, P. James & C. Rowlands. British Yeast Group Meeting Cardiff, April 1992.

111. Anti-depressant drugs with effects on the human circadian system also lengthen the period of the *Schizosaccharomyces pombe* ultradian clock. F. Kippert, S. Diebold, K. Feil, W. Engelmann & D. Lloyd. British Yeast Group Meeting Cardiff, April 1992.

112. Influence of oxygen on the fermentative metabolism of metronidazole-sensitive and resistant strains of *Trichomonas vaginalis.* J. E. Ellis, D. Cole and D. Lloyd. 1st Europ. Congress Protozool., Reading, April 1992. *Eur. J. Protistol.* **28**, 338, Abst. 38.

113. Oxygen protection mechanisms employed by metronidazole-sensitive and resistant strains of *Trichomonas vaginalis.* J. E. Ellis, D. Cole, M. J. Humphreys and D. Lloyd. 1st Europ. Congress Protozoology, Reading 1992. *Eur. J. Protistol.* **28**, 338, Abst. 39.

114. Determination of the viability of *Trichomonas vaginalis* using flow cytometry. M. J. Humphreys, R. Allman & D. Lloyd. 1st Europ. Cong. Protozool., Reading 1992. Abst.

115. Gas metabolism of methanogenic bacteria in pure and mixed culture. J. Benstead, D. B. Archer & D. Lloyd. Abs. Wind River Conference on Genetic Exchange, Colorado, June 1992.

116. A preliminary characterization of the iron-sulphur proteins of *Giardia lamblia.* J. E. Ellis, R. Williams, R. Cammack & D. Lloyd. Iron Sulphur Protein Meeting, King's College London, May 1992.

117. The Cell Cycle: Chaotic or noisy trajectories. D. Lloyd, A. L. Lloyd, L. F. Olsen, E. I. Volkov. Future Directions of Non-linear Dynamics in Physics and Biology. NATO Workshop Lyngby, Denmark, July 1992.

118. Book Review: The Rumen Protozoa (A. G. Williams & G. S. Coleman, Springer Verlag 1991, pp. 441 + xii). In: *Trends in Ecology and Evolution* **7**, 353-354 (1992).

119. Temperature-induced increases in desaturase activity in *Acanthamoeba castellanii.* A. L. Jones, A. C. Hann, D. Lloyd & J. Harwood. Soc. Exptl. Biol., Cambridge, August 1992.

120. *Schizosaccharomyces pombe* mutants; tools for molecular chronobiology. F. Kippert, D. Lloyd, W. Engelmann and H. Ninnemann. Abs. Leicester, September 1992. EMBO Molecular Chronobiology Workshop.

121. *Giardia duodenalis:* growth of Trophozoites in complex media using precursors of cysteine biosynthesis with the thiol-reducing agent mercap to succinate. J. E. Ellis, T. A. Paget, D. Cole, S. L. Erlandsen and D. Lloyd. Giardia, from Molecules to Disease and Beyond, Freemantle, W.A., Nov. 1992.

122. The ultradian clock: timer control of the cell cycle of *Schizosaccharomyces pombe.* D. Lloyd and F. Kippert, Abst. Intl. Symp. of Contemporary Genetics, Bombay, January 1993.

123. Principles and general microbiological applications of flow cytometry. D. Lloyd, R. Allman, D. Mason, M. Humphreys and Ricard Lopez, *J. Appl. Bact.* **75**, Suppl. Abst. (viii), Nottingham, July 1993.

124. Flow cytometric estimation of bacterial antibiotic susceptibility. D. J. Mason, R. Lopez, R. Allman, M. Stark and D. Lloyd. *J. Appl. Bact.* **75** Suppl. Abst. 2 (xviii), Nottingham, 1993.

125. Determination of the viability of *Trichomonas vaginalis* using flow cytometry. M. J. Humphreys, R. Allman and D. Lloyd. *J. Appl. Bact.* **75** Suppl. Abs. 5 (xix), Nottingham, 1993.

126. Membrane potential studies of *Saccharomyces cerevisiae* during cider fermentation. G. Dinsdale, D. Lloyd and B. Jarvis. *J. Appl. Bact.* **75** Suppl. Abs. 17 (xxii), Nottingham, 1993.

127. Book Review: Adv. in Microbial Ecology (ed. K. C. Marshall) 522 pp., New York, Plenum. D. Lloyd in *J. Appl. Bact.*

128. Hypothesis: a controlled chaotic attractor constitutes the central oscillator of the circadian clock. Europ. Meeting of Soc. of Chronobiologists (GERB) Paris, May, 1993.

129. Hypothesis: a controlled chaotic attractor constitutes the central oscillator of the circadian clock. IX European Soc. of Chronobiologists, Bath, September, 1993.

130. The micro-ecology of aerobic denitrification in an estuarine sediment. K. Thomas and D. Lloyd. S.G. Microbiol. Cambridge, 1994.

131. Mass spectrometric monitoring of gases in soils and sediments. D. Lloyd, J. Benstead, K. Thomas and D. Price. S. G. Microbiol. Cambridge, 1994.

132. Bioenergetics of Giardia and Trichomonads. D. Lloyd, T. Paget, J. Ellis, R. Williams, M. Humphreys, R. Cammack. British Soc. Parasitol. 30th April, 1994. Abs. 109.

133. Controlled chaos provides homeodynamics in living systems. 16th Intl. Congress Biochem., Delhi, Sept. 19-22, 1994.

134. 133a. Lipid adaptation in *A.castellanii.* Abs. BS10/18p.96. *IUB 7th Int. Cong. Bact. and Appl. Micro.* July 1994, Prague. S. Avery, J. L. Harwood and D. Lloyd.

135. Continental shelf avalanches as methane clatherate source. M. K. Wallis, D. Lloyd and S. Wakefield. 3rd Int. Conf. *Gas in Marine Sediments.* Texel, The Netherlands, September 1994.

136. A membrane inlet mass spectrometric probe provides direct and minimally-invasive measurements of gases in soils and sediments. D. Lloyd, J. Benstead, K. L. Thomas, D. Price, N. Williams and K. *Analytical Chemistry in Microbiology,* Knoxville, TN USA, March 1995.

137. Book Review: Tracing the History of Eukaryotic Cells. The Enigmatic Smile. B. Dexter Dyer and R. A. Obar. 259 pp. ISBN 0231 075936, Columbia University Press. In: *The Biologist,* **41**, 219, ISSN 0006-3347 (1994).

138. Book Review: Networks and Chaos - Statistical and Probabilistic Aspects (Eds. O. E. Barndorff-Nielsen, J. L. Jensen and W. S. Kendall. Chapman & Hall, London (1993). In: *Binary.* **6** (5), 155 (1994)

139. Hydrogenosomes in trichomonads are calcium stores and have a transmembrane potential. M. Humphreys, J. Ralphs, L. Durrant and D. Lloyd. *Scanning* **16**, 351 (1994).

140. Studies on the bacterial endosymbionts of anaerobic protozoa using fluorescently-labelled rRNA-targeted oligonucleotide probes. D. Lloyd, J. Ralphs, A. G. Williams, R. Amann. *Scanning* **16**, 351 (1994).

141. Book Review: The Rainbow and the Worm: The Physics of Organisms. Mae-Wan Ho. World Scientific, Singapore. In: *Binary* **6**, 188 (1994).

142. Book Review: Principles and Techniques of Practical Biochemistry by K. Wilson and J. Walker. CUP. In: *Microbiol. Europe.* **3,** 25 (1995).

143. Book Review: Coping with Chaos. Ed. E. Ott, T. Sauer and J. Yorke. Wiley. In: *Binary.* **7**, 7 (1995).

144. Book Review: In the Wake of Chaos. S. H. Kellert. University of Chicago Press. In: *Binary.* **7**, 7 (1995)

145. Mass spectrometer analysis of CH_4 and CO_2 in peat bogs. K. L. Thomas, D. Lloyd, J. Benstead and K. Davies. Abst. Knoxville TN, March 1995.

146. Microecology of aerobic denitrification in an estuarine sediment. K. L. Thomas and D. Lloyd. Abst. Knoxville TN, March 1995.

147. Book Review: Methanogenesis: Ecology, Physiology and Genetics. Ed. J. G. Ferry. Chapman and Hall, N.Y. (1996). In: *J. Thermal Biol.*

148. Mass spectrometry of denitrification in estuarine sediment. K. L. Thomas and D. Lloyd. Abst. SGM Bath, April 1995.

149. Lithium affects the ultradian clock of *S.pombe.* T. Courtney, R. Reinecke, F. Kippert, S. V. Avery and D. Lloyd. Abst. SGM Bath, April 1995.

150. Mass spectrometric analysis of CH_4 and CO_2 in peat bogs. K. L. Thomas, D. Lloyd, J. Benstead and K. Davies. Abst. SGM Bath, April 1995.

151. Archaea and Bacteria: Endobionts in rumen protozoa. D. Lloyd, A. G. Williams, R. Amann, A. J. Hayes, L. Durrant and J. R. Ralphs. Abst. SGM Bath, April 1995.

152. Mass spectrometric analysis of CH_4 and CO_2 in peat bogs. K. L. Thomas, D. Lloyd, J. Benstead and K. Davies. Poster, NATO Workshop, Il Ciocco

153. Mass spectrometry of denitrification in estuarine sediment. K. L. Thomas and D. Lloyd. Poster, NATO Workshop, Il Ciocco

154. NATO Workshop, Il Ciocco Problems and Developments in Methodology Working Group 3 Summary D. Lloyd with A. Holmes, NATO Workshop, Il Ciocco

155. Membrane potential studies of cider yeast. M. G. Dinsdale, D. Lloyd and B. Jarvis. Abst. British Yeast Group, April 1995.

156. Book Review: Practical Flow Cytometry. 3rd Edition by H. Shapiro. Wiley-Liss, N.Y. (1995). In: *Binary.* **7**, 125 (1995).

157. Book Review: Synergetics, Chaos, Order, Self-organization. M. Bushev. World Scientific, Singapore (1994). In: *Binary.* **7**, 87 (1995).

158. Ciliate Protozoa: Relationships with bacteria in the rumen. D. Lloyd and A.G. Williams. Abst. Sao Paulo, Brazil. Int. Meeting Microb. Ecol.

159. Membrane potential sensitive dyes as indications of growth perturbation in bacteria. M. T. E. Suller, A. J. Hayes, J. M. Stark and D. Lloyd. Abst. Prague "Fluorescent Probes".

160. Foreword to book by Aon and Cortassa. ???

161. The lethal effects of biguanides on cysts and trophozoites of *Acanthamoeba castellanii.* W. Khunkitti, D. Lloyd, J. R. Furr and A. D. Russell. Abst. Soc. Appl. Bact., Aberdeen, July 1995. *J. Appl. Bact.* **79**, xvii.

162. Ultradian rhythms and chaos control. D. Lloyd. Abst. World Chronobiol. Conference, Ferrara, September 1995.

163. Active O_2 in Biochemistry (ed. J.S. Valentine, C.S. Foote, A.Greenberg & J.F. Lieverman, Blackie, *The Biochemist*.

164. Book Review: Trends in Microbial Ecology (Eds. R. Guerrero and C. Pedrós-Alió. University of Barcelona. In: *Microbiology Europe.* **4**, 24

165. The effects of adherence to silicone surfaces on the physiology of *Staphylococcus aureus.* I. Williams, W. A. Venables and D. Lloyd. Abst. SGM Meeting Aberdeen, September 1995.

166. Correlation between plasma membrane lipid order and phagocytotic activity in *Acanthamoeba castellanii.* S. V. Avery, D. Lloyd and J. L. Harwood. Abst. SGM Meeting Aberdeen, September 1995.

167. Characterisation of phagocytosis in *Acanthamoeba castellanii* using flow cytometry. S. V. Avery, J. L. Harwood and D. Lloyd. Abst. SGM Meeting Aberdeen, September 1995.

168. Book Review: Introduction to Biocatalysis, S.M.Roberts, N.J.Turner, A.J.Willetts & M.K.Turner. Cambridge Univ Press. *J.Eukaryotic microbiology.* (1996).

169. Circadian control of gas production (CO_2 and CH_4) in a peat bog. D.Lloyd, K.L. Thomas, J.Benstead, K.L. Davies & S.H. Lloyd. Abst GERB, St Etienne, May 1996.

170. Ultradian clock timekeeping: periodic quasiperiodic and chaotic outputs. Abst GERB. St Etrienne, May 1996.

171. The purification and characterization of ferulate decarboxylase from *Brettanomyces anomalous.*. D.A.N.Edlin, A.Narbad, J.R. Dickinson & D.Lloyd, FEBS Meeting Barcelona (1996).

172. Effects of Biguanides on *Acanthamoeba castellanii* measured by flow cytometry and plague essay techniques. W.Khunkitti., D.Lloyd, J.R. Furr & A.D.Russell. Ann. Soc. Microbiol. Abst B470 New Orleans May, 1996.

173. Hydrogenosomes of *Metopus contortus* confocal laser scanning microscopic slides. G.Biagini, M.Suller, A.Hayes, B.J.Finley & D.Lloyd. S.G.M.U. Warwick, April 1996.

174. Silwood Park, April, 1996. British Society for Protozoology.

175. The Effect of adherence to silicone surfaces on the physiology of *Staph. aureus*. I. Williams, W.A.Venables, D. Lloyd & F. Paul. 8th Int. Symp. Staph & Saphylococcal Infections.

176. A membrane potential sensitive dye Frimethine oxonol, as indicator of growth purturbatic in *S. aureus*. M.T.E. Suller, A. J. Hayes, J.M. Stark & D. Lloyd.

177. Times Higher Educational Supplement Letter. D. Lloyd.

178. Life from space. Letter to New Scientist (unpublished).

179. Oxygen-dependent changes in fatty acid composition during low-temp acaptation in Acanthamoeba castellanii. S.V. Avery, A. J. Rutter, J. L. Harwood & D. Lloyd. SGM Meeting Essex. September 1996.

180. Alternative Mitochondrial Oxidative Microaerobic Life D. Lloyd Letter to Nature and TREE (unpublished)

181. O_2-dependent of alterations in Δ12-desaturase in*A. codettamii* S.V. Avery, A. J. Rutter, J. L. Harwood & D. Lloyd. 97th ASM Florida (Miami Beach) May 4 - 8th 1997.

182. Methanogensis in an antrotrophic peat bog. D. Lloyd, K. L. Thomas, J. Benstead, K. L. Davies, K. D. Steple & J. R. M. Arah Fine TIGER meeting & Atm Env. 1997.

183. Modification of fatty acid metabolism during temp. adaptation J. L. Harwood, A. J. Rutter, A. J. Williams, S. J. Avery & D. Lloyd. Stess of Life: Int Congress of Stress July 1997

184. Archaea and Bacteria: Endobionts in Rumen Protozoa: A Confocal Laser Scanning Micrscopy Study. D. Lloyd, A. G. Williams, R.Amann, A. J. Hayes, L. Durrant and J. R. Ralphs 10th Int. Cong. Protozool Sydney July 21-25 1997.

185. Anaerobiosis induced Differentiation of *Acanthamoeba castellanii* N. A.Turner, G. A. Biagini & D. Lloyd.

186. Carbohydrate and Amino Acid Fermentation in the Free-Living Flagellate *Hexmita* sp. G. A. Biagini, P. S. McIntyre, J. B. J. Finlay & D. Lloyd.

187. Oxygen Uptake and Antioxidant Responses of the Free-Living Diplomonad *Hexamita* sp. G. A. Biagini, M. T. E. Suller, B. J. Finlay & D. Lloyd.

188. A Flow Cytometric Assay for Monitoring Encystation in *Acanthamoeba Castellanii*. C. D. Connell, A. J. Rutter, M. T. E. Suller, B. Hill & D. Lloyd.

189. Oxygen Homeodynamics in *Giardia* D. Lloyd, T. Paget & J. Ellis. Future Chemother. Targets An. Protozoa Brisbane, July 28-30 1997.

190. Oxygen and *Trichomonas vaginalis* D. Lloyd, J Ellis and T. Paget.

191. Anaerobiosis induced differentiation of *Acanthamoeba castellanii*

192. Carbohydrate and Amino Acid Fermentation in the Free-Living Flagellate *Hexamita* sp. Giancarlo A. Biagini, Peter S. McIntyre, Bland J. Finlay & David Lloyd.

193. Oxygen Uptake and Antioxidant Responses of the Free-Living Diplomonad *Hexamita* sp. Giancarlo A. Biagini, Marc T. E. Suller, Bland J. Finlay & David Lloyd.

194. Confocal Laser Scanning Microscopy shows that Hydrogenosomes in Trichomonds are calcium stores and have transmembrane electrochemical potential. D. Lloyd, Michele Humphreys and James Ralphs

195. Alive or Dead: Using Voltage-Sensitive Dyes to Enable Discrimination of Living Organisms from Inanimate Particles. D. Lloyd & C. Wickramasinghe SPIE San Diego Conference August 1997.

196. The Measurement of Cider Yeast Vitality. David Lloyd, Jennifer C. Willetts, Rebecca Seward, Marilyn Gwenda Dinsdale, Marc T. E. Suller & Bethan Hill. 1st Yeast Fermentation Performance Congress. Oxford, September 1997.

Volume 10

197. The measurement of gases in sediments from Cardiff Bay. George Cowie & David Lloyd.. Halifax N.S. August 1998.

198. N_2O and N_2 & O_2 profiles in a Tagus estuary salt marsh sediment. Paolo Cartaxana & David Lloyd. Halifax, Nova Scotia, August 1998.

199. NO^+ but not NO effect the respiratory oscillation in continuous cultures of yeast. (missing)

200. 199. Restoration of the River Pelonna. Angela Berry, Stuart Davies, S. & David Lloyd, poster, Bioremediation. Cardiff, April 1998 (missing)

201. Flagellated parasitic protozoa *Giardia intestinalis* and *Trichomonas vaginalis* show dose dependent inhibition in the presence of Garlic (*Allium sativum*). Janine C. Harris, Sue Plummer, S. & David Lloyd, Flagellates, Birmingham, Sept 1998.

201. The opening of the Beverton Lecture Theatre, 7th Jan 2000, Why do governments spend money on Science, address by Sir Robert May . Short resume David Bowker and David Lloyd Biotype 9, 63-65 ; Bioline.

202. Amino Acid Fermentating in non-starter *Lactobacillus* spp. Isolated from Cheddar Cheese. Jonathan D.Tammam, Alan G. Williams, and David Lloyd ASM Meeting, Chicago (May 1999).

203. Attachment of Lactic Acid Bacteria to Yeast During Cider Fermentation. Ceri C. E. Arthurs and Lloyd, D. ASM Meeting, Chicago (May 1999).

204. Rapid and Sensitive Quantitation of Antibiotics in Fermentations, Environmental Samples by Electrospray Mass Spectrometry. Janine Morgan, M. E. Joyce-Menekse, Robert Rowlands, Ian H. Gilbert, and David Lloyd, poster (IUMS Sydney, Aug 1999)

205. Oxygen homeodynamics in *Giardia* David Lloyd, Jayne Ellis J and Timothy Paget, Eur. Cong. Protistol. Helsingor (July, 1999).

206. Anaerobiosis induced differentiation of *Acanthamoeba castellanii*. European Congress of Protistology. Neil A. Turner, Gian A. Biagini, & David Lloyd. (ibid)

207. Oxygen uptake and antioxidant responses of the free-living Diplomonad, Hexamita sp. Gian A. Biagini, Marc Suller, Bland J. Finlay & David Lloyd (ibid.)

208. Insights in the biology of *Mastigamoeba punctachora*. Catherine Bernard, Giancarlo A. Biagini, Michael R. Edwards, David Lloyd (ibid.)

209. Cabohydrate and amino acid fermentation in the free-living flagellate *Hexamita* Sp. Giancarlo A. Biagini, Peter S. McIntyre, Bland J. Finlay, DL (ibid)

210. Bacterial bioluminescence A system suitable for studies of microwave radiation. DL Sao Paulo , Sept 8-10 (1999)

211. Development of resistance to bocides during differentiation of *Acanthamoeba castellanii*, Neil A Turner, A. Denver. Russell, James R. Furr & David Lloyd, Cardiff abst. J Pharm. Pharmacol (1999) 51, Supplement 34

212. Home thoughts from Bombay. Letter from David Lloyd, 23 rd Nov, Biotype, Vol. 8, 53 16th Dec 1998

213. Biodiversity through bioluminescence Letter from David Lloyd to Michael Rayner-Brandes for Merck website

214. Stochastic resonance can trigger bistable systems. Don A. Gilbert & David Lloyd, letter to Nature 18.7.98

215. Too much oxygen? Letter to Trends in Ecology and Evolution. David Lloyd & Giancarlo A. Biagini

216. Biogenic controls on trace gas fluxes in northern wetlands CONGAS, Northern trace gas studies. Torben R. Christensen, Bo Svensson, Perrti Martikainen, David Lloyd, Richard Harding, Hlynur Oscarsson, Henrik. Segaard, Nicolai Panilov. (poster)

217. A PhD defence in Portugal –Paulo Cartaxana, by David Lloyd. Biotype; Bioline.

218. Home Thoughts from Balmain NSW Biotype; Bioline. 24 July 1999

219. Father of modern sleep research dies Biotype; Bioline. 24 July 1999

220. Continuing Successes of Cardiff Old Microbes Bioline. Vol. 9 1999

221. Spatial and temporal organisation of microbial gas production in peat cores. D L, Katie L. Thomas, Julie Benstead, Anthony Hayes, Kevin L. Davies & Sion H Lloyd, Mass Spec. Techniques Tregastel, Brittany June 4-7, 2000, poster

222. MIMS measurement of gas gradients in an esuarine sediment George Cowie & DL , (ibid).poster

223. Rapid and sensitive quantification of antibiotics in fermentations by electrospray MS. Janine Morgan, Miranda E. Joyce-Menekse, R T Rowlands , I H Gilbert & DL (ibid).

224. MIMS measurement of O2 and CO2 gradients in developing cheddar cheese system J D. Tammam, A G Williams, G Cowie & DL (ibid)

225. Microbiology covers Tony Hayes & David Lloyd March 1996

226. Microbiology covers Tony Hayes & David Lloyd October 1996

227. Microbiology covers Tony Hayes & David Lloyd September 1997

228. Microbiology covers Tony Hayes & David LloydJanuary 1998

229. Microbiology covers Tony Hayes & David Lloyd May 1998

VOLUME 11

230. Rapid and Sensitive Quantitation of Antibiotics in Fermentations, Plasma and Environmental Samples by Electrospray Mass Spectrometry. Janine Morgan, M. E. Joyce-Menekse, Robert Rowlands, Ian H. Gilbert, and David Lloyd, (IUMS Sydney, Aug 1999)

231. Encystation in *Acanthamoeba castellanii*: development of antibiotic resistance. David Lloyd Neil A. Turner, Watkhu Khunkitti, Ao C Hann, James D Furr, A D enver Russell, Am Soc Parasitol Puerto Rico June 2000

232. Carbohydrate and amino acid fermentation in the flagellate Hexamita Sp. Giancarlo A Biagini, Peter McIntyre, Bland J Finlay & David Lloyd . Giardia in the Rockies, Canmore, Alberta Canada. Oct 19-22, 2000

233. O2 uptake and antioxidant responses of the free-living Diplomonad, Hexamita sp. Gian A. Biagini, D. L. MT R Suller, B J Finlay DL (ibid)

234. O2 homeodynamics in Giardia. D. Lloyd, Janine Harris, GAB, MRE, Sarah Maroulis, Michael E Turner, James Ralphs, Ao C Hann, Ron Wadley, Ellis J, and Paget, T (ibid).

235. *Giardia intestinalis* and *Trichomonas vaginalis* : dose-dependent inhibition by garlic. J Harris, S Plummer & DL (ibid)

236. Amino acid formation and activity of degradation by enzymes of *Lactobacillus* spp. Alan G. Williams , J. Noble, Jonathan Tammam, David Lloyd & J. M. Banks (Poster)

237. Live perspectives of biochemistry. David Lloyd, The Biochemist (letter) June 2000

238. Book Review: David Lloyd, D.: J. Eukaryotic Microbiol. 47(6), 598. Yeast characteristics and Identification, 3rd Edition. J. A. Barnett, R. W. Payne, D. Yarrow. Cambridge University Press. (2000)

239. Responses of biguanides during synchronous encystment of *Acanthamoeba castellanii.* Neil A. Turner, A. Denver Russell, David Lloyd & Jean-Yves Maillard ASM 101st general meeting May 2001

240. The ultradian clock in S. cerevisiae does it coordinate an extracellular sampling device? cerevisiae JR Knowles, S Roller, Douglas B. Murray, L. Esthante Salgado, Michael Turner and David Lloyd. (poster)

241. Inhibitory effects of *Allium sativum* (Garlic) against *E . coli* and *Lactobacillus casei*. S L. Cottrell, Sue Plummer, Ao C. Hann, David Lloyd & Carsten T. Muller ASM Salt Lake City (2002).

242. The detection of bacteria in stratopheric samples. Melanie J. Harris , P. Rajaratnam, J. V. Narlikar, N. C. Wickramasinghe & David Lloyd (poster)

243. *Allium sativum* (Garlic) as an anti-Candida agent: a comparison of the efficacy of fresh and freeze-dried extracts. Katey M Lemar, Michael P. Turner & David Lloyd

244. Gregynog Conference 1-20 April 1990, org. David lloyd and Ifor Bowen: Rhythms and Cycles/Molecular Aspects of Development. In Biomedia, Bioline

245. A visiit to the USSR Academy of Sciences, October 1990, David Lloyd, In Biomedia, Bioline

246. Professor Erwin Bunning 1906-1990, 7th , Oct 1991, David Lloyd, In Biomedia, Bioline

247. Biological Rhythms , Amelia Island FL, May 6-10, 1992, David Lloyd, In Biomedia, Bioline

248. Dr. A. John Morgan; another DSc for Cell Biology, Ivor Bowen, In Biomedia, Bioline

249. World Conference on Chronobiology and Chronotherapeutics, Ferrara , Italy, 6th September, 1995

250. Twenty-five years in Gregynog, David Lloyd, In Biomedia, Bioline

251. Further successes of Old Microbes. David Lloyd, In Biomedia, Bioline

252. Poem for the Zoolological Aociety, Ifor Delme Bowen;Towards a new style of management David Lloyd, In Biomedia, Bioline

253. The Krebs Centenary Symposium, Oxford, 13-15 September 2000, David Lloyd, In Biomedia, Bioline

254. Professor Sir Hans Krebs, Biochemist par excellence. David Lloyd, In Biomedia, Bioline

255. Microbiology cover: Tony Hayes & David Lloyd December, 2000, Giardia

256. How to decontaminate. James Randerso, New Scientist (2002) 25 May re Simon Cottrell at Salt Lake City James Randerson

257. The detection of bacteria in stratopheric air samples. MJ Harris , P. Rajaratnam, J V Narlikar, NC Wickramasinghe & DL (poster)

258. *Allium sativum* (Garlic) as an anti-Candida agent: a comparison of the efficacy of fresh and freeze-dried extracts. K M Lemar, M P Turner & DL

259. Cycles of Mitochondrial Energisation driven by the Ultradian Clock in a Continuous Culture of *Saccharomyces cerevisiae*. DL, L Eshanta J. Salgado, M. P.Turner, Katie M. Lemar, Marc T. E. Suller,and Douglas Murray. 1st Yeast Apoptosis Meeting , Bragha, Portugal, poster Sept. 2002.

260. Erutan, Séance and Sell New Scientist, DL Dec 9th 2002

261. Brain Rhyhms (Sleep and Wakefulness), New Scientist, DL July 19th 2003

262. Cycles of Mitochondrial Energisation driven by the Ultradian Clock in a Continuous Culture of *Saccharomyces cerevisiae*. DL, L Eshanta J. Salgado, M. P.Turner, Katie M. Lemar, Marc T. E. Suller,and Douglas Murray. Yeast, 2003, Chandigarh Feb 20-22 .

263. Nudging the Cell cycle: quantised yeast proliferation during continuous culture. DouglasB Murray, DL and Robert R Klevecz (poster) Beckman Res Institute, City of Hope, Duarte , CA.

264. Book review Biological Systems Under Extreme Conditions: Structure and Functions. Y. TANIGUCHI, H.E. Stanley and H. Ludwig (DL)

265. Yeast respiratory oscillations monitored in continuous cultures and evaluated bt 2-photon microscopy. DL , Katie M. Lemar, D.B. Murray, Miguel A. Aon, Sonia Cortassa and Brian O'Rourke, Iberian Soc. Anal. Cytol. , Madrid, June 2003.

266. Plasma Membrane Potential Monitoring of Antibiotic and Inhibitor sensitivities. D.L. Madrid and Hilo Hawaii, July 25-29 (2003).

267. Cell death mechanisms in candida albicans Katie M Lemar, S Plummer, Carsen T. Muller, DL. International Workshops On Anaerobic Protists and Opportunistic Protists. Hilo Hawaii, July 25-29 (2003).

268. Menadione generated radicals kill Giardia trophozoites and Cysts. T. Paget, S, Maroulis, , A. Mitchell, , M.R. Edwards and E.R. Jarroll.

269. Plasma Membrane of Giardia intestinalis, a target for nitrosive and oxidative stress. D.L., G.A. Biagini, S. Maroulis, B. Wadley, J. C. harris, M. R. Edwards and M.N. Hughes.

270. Yeast respiratory oscillations monitored in continuous cultures and evaluated bt 2-photon laser microscopy. DL , Katie M. Lemar, D.B. Murray, Miguel A. Aon, Sonia Cortassa and Brian O'Rourke Viith Latin-American Symp. Chronobiology, Tlaxcala, Mexico, Nov. 23-27 2003.

271. David E. Hughes: microbiologist who promoted the use of bacteria in Indusrry, agriculture and medicine. Obit. Observer ?

272. Radiative Biology: reduced organelles and raductive evolutionary theory ! DL The Scientist Dec 2 (2003) .

273. The inhibitory activity of garlic against Methicillin-resistant *Staphylococcus aureus* (MRSA) alone and in comination with Methicillin or Penicillin. S. L. Cottrell, C. T. Muller, D.L. A. D. Russell, S Plummer amd M. J. Day. ASM New Orleans (June 2004, 2003).

274. The effect of Medium Composition upon Morphology of Salmonella Typhimurium. V. L. Gray, D. Lloyd, C.T. Muller, I. Watkins. ASM New Orleans (June, 2004).

275. David E. Hughes (1915-2003): Obit SGM, Microbiology Today. Submitted 12.12.2003, published 2004.

276. DL CU Website 27/06/2003

VOLUME 13 to 2006

277. J V Narlikar, DL , NC Wickramasinghe MJ Harris , MP Turner, S Al-Mufti, MK Wallis M Wainwright, P. Rajaratnam, S Shivaji, GSN Ramadurai, F Hoyle. Balloon experinet to detect microorganisms in the outer space. Astrophysics and Spoace Science 285(2) : 555-562 (2003) Abst and References only

278. *The inhibitory activity of garlic against Methicillin-resistant *Staphylococcus aureus* (MRSA) alone and in comination with Methicillin or Penicillin. S. L. Cottrell, C. T. Muller, D.L. A. D. Russell, S Plummer amd M. J. Day. ASM New Orleans (June 2004, 2003).

279. *The effect of Medium Composition upon Morphology of Salmonella Typhimurium.

280. V. L. Gray, D. Lloyd, C.T. Muller, I. Watkins. ASM New Orleans (June, 2004).

281. *David E. Hughes (1915-2003): Obit SGM, Microbiology Today. Submitted 12.12.2003, published 2004

282. DL Intracellular membranes wth redox and transmembrane functions. Giardia and Cryptosporidium Conference, Amsterdam Sept 2004 (poster)

283. J V Narlikar, DL , NC Wickramasinghe MJ Harris , MP Turner, S Al-Mufti, MK Wallis M Wainwright, P. Rajaratnam, S Shivaji, GSN Ramadurai, F Hoyle. Balloon experinet to detect microorganisms in the outer space. Astrophysics and Spoace Science 285(2) : 555-562 (2003)Abst and References.

284. Coralie Millet. Diplomonads: Fish need them like a hole in the head Cardiff Poster BS Parasitology Meeting , Cardiff 200?

285. Monitoring and Imaging of Mitochondrial Redox Components in Yeast, D.L. , Katey Lemar, Douglas Murray, M.A. Aon, S. Cortassa. Weber Symposium, Kulai July (2005)

286. The Golden Age of Biophysics in Sheffield (1956-1963) DL. Weber Symposium, Kulai July (2005)

287. Effects of polyamine depletion by DFMO on hydrogenosomes in Trichomonas vaginalis . Kristina Harris, Burt Goldberg, Michael Turner, Anthony Hayes, Katey Lemar, Nigel Yarlett, DL. Int Conference Anaerobic Protists . Sardinia, Sept 17-20 (2005).

288. The cardio-lipin containing mitochondria-like organells of *Giardia intestinalis*. DL, Anthony J. Hayes, M. P. Turner, Deborah Cole, Michael o'Reilly and Jayne Ellis. Int Conference Anaerobic Protists . Sardinia, Sept 17-20 (2005).

289. Oscillatory signatures of drug perturbation Douglas Murray, A. Funahashi, H. Moriya J Forrest and H Kitano Sept 10 (2005)

290. W. Terry Coakley (1940-2006) obit. DL CU Dec 2006.

291. Murray DB, DL, Beckmann M, Kitano H. The Regulatory Landscape of Yeast Systems Energetics. (Poster) International. Specialised Symp on Yeasts Hannasari, Finland, June 18-26, 2006 VTT Symposium 242 Eds. Kuokka A, & Penttila M

292. Murray DB, DL, Beckmann M, Kitano H. The Regulatory Landscape of Yeast Systems Energetics. Poster 7th Int Conference on Systems Biology Oct 9-13 2006 Yokohama

293. Cellular Conversations in stirred liquid suspensions and on surfaces: ultradian clocks and oscillations generate spontaneously self-synchronised yeast populations. D.L., A.J. Hayes, K.M. Lemar, D.B. Murray, M.R. Roussel, M.A. Aon, S. Cortassa. Biology of Yeasts and Filamentous Fungi Pune, Feb. 14 , 2007.

Volume 14 to 2009

294. Professor Terry Coakley (1940-2006) Cardiff University Obituaries 15.12.2006

295. Professor Terry Coakley obit. (1940-2006) Timesonline, June 25 , 2007

296. Professor William Terry Coakley (1940-2006) obit. Irish Examiner January 6 2007

297. *Cellular Conversations in stirred liquid suspensions and on surfaces: ultradian clocks and oscillations generate spontaneously self-synchronised yeast populations. D.L., A.J. Hayes, K.M. Lemar, D.B. Murray, M.R. Roussel, M.A. Aon, S. Cortassa. Biology of Yeasts and Filamentous Fungi Pune, Feb. 14 , 2007.

298. Two-photon excitation simultaneous kinetic analyses of multiple fluorophore responses *in vivo* in yeast. D L, K.M. Lemar, M.A. Aon, S. Cortassa & Brian O'Rourke. Photochemistry and Photophysics of coordination Compounds, Trinity College, Dublin: June 27-28, 2007

299. Coralie Millet, Tony Hayes, Dan Mathews, Huw Summers Joanne Cable and David Lloyd. Fluorescence of Quantum dots fonfirms uptake mechanisms for ingestion in *Spironucleus vortens, Giardia intestinalis. Ibid.*

300. Douglas B. Murray, David Lloyd & Hiroaki Kitano. Frequency modulation of the yeast reaction network. Systems Biology Inst., Tokyo

301. Douglas B. Murray, David Lloyd & Hiroaki Kitano. Frequency modulation of the yeast reaction network. FEBS 32nd meeting, Vienna, July 2007.

302. D L, A. J. Hayes, K.M. Lemar, D. B. Murray, M.R. Roussel, M.A. Aon, S. Cortassa. The 40min ultradian clock and 4min oscillations generate spontaneously synchronized yeast populaions.FEBS 32nd meeting, Vienna, July 2007.

303. I. Guschina, DL., J. L. Harwood, B. Goldberg and K. M. Harris. Phospholipids of the microaerophilic prtotozoan flagellate *Trichomonas vaginalis*. Vth. Euro. Cong. Protistoligy, St. Petersburg, July 23-27, 2007

304. K. M. Harris, B. Goldberg, M. vander Giezen, G. A. Biagini & D. L. *Trichomonas vaginalis,* and *Giardia intestinalis* produce NO: does nitrosylation induce carbohydrate metabolism? Vth. Euro. Cong. Protistoligy, St. Petersburg,July 23-27, 2007

305. DL M.A.Aon, D.B. Murray, S. Cortassa. Oscillations are a Necessity. Vth. Euro. Cong. Protistoligy, St. Petersburg, July 23-27, 2007.

306. Coralie Millet, J. Cable & D.L. H2 production in the fish parasite, *Spironuclueus vortens*. Vth. Euro. Cong. Protistoligy, St. Petersburg, July 23-27, 2007.

307. D L, A. J. Hayes, K.M. Lemar, D. B. Murray, M.R. Roussel, M.A. Aon, S. Cortassa. The 40min ultradian clock and 4min oscillations generate spontaneously synchronized yeast populations. 3rd. Latin American Meeting of Biomathematics , Cuernavaca, Mexico, Nov. 2007.

308. Douglas B. Murray, David Lloyd & Hiroaki Kitano. Frequency modulation of the yeast reaction network. 3rd. Latin American Meeting of Biomathematics , Cuernavaca, Mexico, Nov. 2007.

309. John Wood Iveta Garaiova, Sue Plummer, Carsten Muller, Martin Day & D.L. *In vitro* production of antimicrobial resistance in a methicillin–sensitive strain of *Staphylococcus aureus*. ISSS conference, Cairns, Australia, August, 2008.

310. A Pioneering Genius - Archie Cochrane. DL, Western Mail, 5th Deceember 2008.

311. Cellular Conversations in stirred liquid suspensions and on surfaces: ultradian clocks and oscillations generate spontaneously self-synchronised yeast populations. D.L., A.J. Hayes, K.M. Lemar, D.B. Murray, M.R. Roussel, M.A. Aon, S. Cortassa. British Yeast Group, Cardiff, March, 2009.

312. Douglas B. Murray, David Lloyd & Hiroaki Kitano. Frequency modulation of the yeast reaction network. British Yeast Group, Cardiff, March, 2009.

313. Two-photon excitation simultaneous kinetic analyses of multiple fluorophore responses *in vivo* in yeast. D L, K.M. Lemar, M.A. Aon, S. Cortassa & Brian O'Rourke. British Yeast Group, Cardiff, March, 2009.

314. H2S: clues to the early origins of function as intr- and extra-cellular messenger and coordinator. D.L. & D. B. Murray. Submitted to Nature correspondence (not published. July 13 2009

315. D. B. Murray, Rainer Machne, Tomoyoshi Soga, Kalesh Sasidharan, Cornelia Ameriei, D. L., Miguel A. Aon, Chieko Kimura, Kaori Igarashi, & Masaru Tomita. Multi-oscillatory behaviour in energetic and NAD(P)H dynamics in yeast. AIM Pune, December 2009.

316. D. B. Murray, D. L., Hiroki Kitano. Frequency modulation of the yeast reaction network. AIM Pune, December 2009.

317. M.A. Aon, Marc R. Roussel, S. Cortassa, Brian O'Rourke, Douglas B. Murray, Manfred Beckmann and David Lloyd. Fractal Scaling of Respiratory Oscillations in Self-organised Continuous Cultures of Yeast. AIM Pune, December 2009.

318. D. Lloyd : Professor Pabitra Kumar Maitra (1.11.1932- 5.09.2007).

319. Sept 15 2008 (contribution for Biographical Memoires of Fellows of II INSA (2009) 35, 211-226)

VOLUME 15 to 2012

320. C.F. Williams, C. O. M. Millet, J. Cable, M. P. Coogan & D. Lloyd. *Spironucleus vortens*: economically important fish papathogens and enigmatic diplomonad pathogen. Anaerobic Protists, Los Angeles, CA, Sept. 2012 (poster)

321. A. R. Vacca, C.F. Williams, D. Lloyd & J. Cable. Host-parasite interactions and life cycle of *Spironucleus vortens* in the angel fish *Pterophyllum scalare.* All-Wales and South-west Microbiology Forum, Swansea, Sept 2012. (poster)

322. C.F. Williams, C. O. M. Millet, J. Cable, M. P. Coogan & D. Lloyd. *Spironucleus vortens*: economically important fish pathogen and enigmatic diplomonad flagellate. All Wales and South-west Microbiology Forum, Swansea, Sept 2012. (poster)

323. Gray, V. L., Puckering, O., Randles N. Continuous toxicity monitoring of Yangtze river water (China). Modern Water 2012, (poster).

324. C.F. Williams Hole-in-the-Head in ornamental fish: potential herbal remedies. Cichlidae, 31 (3) 2012

325. D. Lloyd. Bid to list scientist's birthplace. Western Mail Aug 11, 2010.

326. C. O. M. Millet, J. Cable, D. Lloyd & M. P. Coogan Growth, metabolism and ultrastrucure of *Spironucleus vortens*: British Soc Parasitol , Cardiff, 2010 (oral comun.)

327. Coralie Millet, Tony Hayes, Dan Mathews, Huw Summers Joanne Cable and David Lloyd. Uptake of Quantum dots: a comparison of feeding by *Spironucleus vortens, Giardia intestinalis , Trichomonas vaginalis.* B Soc Parasitol., Cardiff , 2010 (poster)

328. DL M.A.Aon, D.B. Murray, S. Cortassa. Oscillations are a Necessity. Int. Soc Protistologists, Canterbury, July, 2010 (poster)

329. C. O. M. Millet, J. Cable, D. Lloyd & M. P. Coogan Growth, metabolism and ultrastrucure of *Spironucleus vortens*: Int. Soc Protistologists, Canterbury, July, 2010 (poster) Canterbury, July 23, 2010 (oral comun.)

330. C.F. Williams, C. O. M. Millet, J. Cable, M. P. Coogan, D. Lloyd. & Williams, D. Garlic a potential cure for Hole-in-the-Head in fish. Int. Soc Protistologists, Canterbury, July 23, 2010 (poster)

331. C.F. Williams, Leitsch, D., Dunham, L., Williams, D., M. P. Coogan, J. Cable, D. Lloyd. *Spironucleus vortens*: a proteomic study of novel and traditional chemotherapeutic agents. Int. Soc Protistologists, Canterbury, July 23, 2010 (poster)

332. K. M. Harris, W. Q. Jiang, D. Lloyd, Jarroll, E. Van Keulen, H. Paget, TA. & Goldberg, B. Polyamine metabolism in *Giardia intestinalis* . Int. Soc Protistologists, Canterbury, July 23, 2010 (poster)

333. D. L. Yeast harmony. New Scientist. July 16, 2011.

334. Flora Thorp-Greenwood, Mike Coogan, Sleeping Trojan Horses CU news,19 Feb 2011.

335. Cymtox. Innovation Award Nicola Randles, Victoria Gray & DL, CU 2011. Also reported in The Engineer 23. 05. 2011, and Western Mail.

336. D. L. Ultradian clocks(with periods of about one hour) in Protists constitute a synchronizing time base and coherence for organised complexities. Eur Conference of Protistology, Berlin, 25-29 July 2011 (oral commun.).

337. C.F. Williams, Leitsch, D., Dunham, L., Williams, D., M. P. Coogan, J. Cable, D. Lloyd. *Spironucleus vortens*: a proteomic study of novel and traditional chemotherapeutic agents. Eur Conference of Protistology, Berlin, 25-29 July 2011 (oral commun.).

338. C.F. Williams, M. A. Aon, N. Yarlett, N. J. Cable, Williams, D., Lloyd, D. Effects of inhibitors on the antioxidant system of *Spironucleus vortens* . Eur Conference of Protistology, Berlin, 25-29 July 2011 (oral commun.).

339. D. B. Murray, D. L. Sasidharan, K., Soga, T., Aon, M.A. & Tomita, M. The dynamics of the yeast metabolome *in vivo*. Metabolomics, Cairns, 2011.

340. Lakshmi, V., Williams C. F., White, N., Lloyd, D. & Krishnamoorthy. Intracellular O2 probed by quenched phosphorescent life times of nanoparticles containing polyacrylamide–embedded Ru(II)coordination complex. National Physics Laboratory, Teddington (poster)

341. Donald Gilbert (17 May 1930- 14 July 2011) Obit.

342. DL. Soc. Gen. Mic. Report on 50th Ann. Conf. Assoc Microbiol. India (AMI, Nat Chem Lab, Pune Dec 15-18 Dec. 2009.

343. Pabitra Kumar Maitra (obit.Sept 4 2007). Patrika, vol 46. Newsletter of the Indian Academy of Sciences .

344. DL. Plankton 2011 Marine Biology Lab, Seminar, Plymouth Abstract.

345. Tomoko Ohnishi & Jay L Sweier. Celebrating Britton Chance (1913-2010) Antioxidents and Redox Signalling (2011)

346. P. Leslie Dutton Retrospective: Britton Chance . Science 330, Dec 17, 2010

347. D.L. Britt was a Colossus. U Penn website

348. R.K. Poole U Penn website

349. DL Britton Chance (1913- 2010): Memorial biophysics meeting at U Penn, Biomedia, CU.

350. N. Zogorski: Britton Chance: former olympian and Pioneer in enzyme kinetics and functional spectroscopy. ASBMB TODAY July 2009,

351. D. L.Biological temporal coherence. Sent to Science 2011, unpublished letter.

352. D. L H2S in evolution. 10.08.2010, Sent to New Scientist, unpublished letter.

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353. DL Britton Chance (1913- 2010): Memorial biophysics meeting at U Penn, Biomedia, Biosciences, Cardiff University

354. C.F. Williams, C. O. M. Millet, J. Cable, M. P. Coogan & D. Lloyd. *Spironucleus vortens*: fish papathogen and enigmatic diplomonad flagellate. Iron-sulphur cluster discussion meeting April 19th 2013, Mill Hill (poster).

355. D. L. Ultradian clocks (with periods of about one hour) in Protists constitute a synchronizing time base and coherence for organised complexities, Cardiff University.

356. C. F. Williams, A. R. Vacca, DL, B. Schelkle & J. Cable. Non-invasive investigation of *Spironucleus vortens* transmission in freshwater angel fish *Pterophyllum scalare.* Seminar, May 25th 2015, Cardiff University.

357. David Lloyd, A. Denver Russell, James R. Furr, Antoin C Hann, N A Turner, Wichittta Khunkitti, simon V. Avery, Christine Connell. Emergence of Amoebicidal resistance andd routes to cell death in *Acanthamoeba castellanii.* FLAM, Vienna, 2013

358. Iestyn Pope, Catrin F. Williams, Coralie O Millet, Marc Isaacs, Wolfgang Langbein and Paola Borri & David Lloyd. CARS and Second Harmonic Generation imaging reveal lipid droplets in *Spironucleus vortens* Nano- and Bio-photonics Symposium, 2013, Cardiff University.

359. Wallace Lecture Series 2013-2014, Earth Sciences, Cardiff University (programme).

360. A. R. Wallace, Letter to Western Mail , 03.11 2013 (unpublished). DL

361. Book Review (Amazon.co.uk and .com) Marc R. Roussel: 'A Life Scientist's Guide to Physical Chemistry'. DL

362. M. K. Chandrashekaran: development of his legacy as time goes by. DL, memorial lecture, Abst. (postponed until 7th February 2016) **Jawaharlal Nehru Centre for Advanced Scientific Research** (**JNCASR**) Jakkur, Bangalore

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363. DL K. Sasidharan, M. Tomita, DB. Murray, M. A. Aon. Redox cycling at the core of yeast clock networks in vivo. Abst. Soc. Exp. Biol. Annu. Meet. Manchester, 2014.

364. DL M. K. Chandrashekaran: development of his legacy as time goes by, memorial lecture, Abst. (postponed until 7th February 2016) **Jawaharlal Nehru Centre for Advanced Scientific Research** (**JNCASR**) Jakkur, Bangalore.

365. D L & Lee Wimpenny. Professor Julian Wimpenny (March 27th 1936-Jan 7th 2016) Microbiology Today, Obit. Nov 16 2016

366. C.F. Williams, David Lloyd, Jonathan Lees, Antoine Pirog, Gilles M. Geroni, Jordan Pastre, Valentin Kreigel, Adrian Porch. What the deep sea can tell us about microwaves. Ser Cymru National Research Network, Swansea (Poster), 18th Oct 2016

367. C.F. Williams, C. Hather, Adrian Porch, D. L., R. O.Williams, & C.H. George. Microwave electric field at 2.45 GHz modulates the beta adrenergic response of human emryonic stem cell-derived cardiomyocytes. Ser Cymru Festival of Research , Swansea, Oct 2nd 2017.

368. D.L., CFW, Lars Folke Olsen. Light from Life: some mechanisms of bioluminescence Bio- and Nano Photonics Symp., Cardiff University Sept , 2017.

369. C.F. Williams, Adrian Porch, Jonathan Lees, David Lloyd , Huw Summers. Biological effects of pulsed microwave fields on luminophores. Engineering Wales Conference, Mercure Hotel, Cardiff, 19th Oct. 2017.

370. D. L. Review: of 'Microbiology: Past, Present and Future', by (eds.) D. L., J. Barbara Evans and W. A. Venables (Amazon.co.uk , Amazon.com) 01.10. 2017.

371. D. L. Review: of 'Knock 'Em Cold Kid' Elaine Morgan , (Amazon.co.uk , Amazon.com) 04.08. 2017

372. Harry van Keulen, D.L. Nigel Yarlett & Timothy Paget, In Memoriam: Edward Jarroll (1948-, 2017) J. Eukaryotic Microbiology

373. Catrin F. Williams, David Lloyd. The Bioimaging Hub, Cardiff School of Biosciences. CITR research workshop, Haydn Ellis Bldg., Maindy Rd., Cardiff 8th Jan, 2018.

374. Catrin F. Williams, Catherine Hather, Adrian Porch, Heungjae Choi, Rhodri O.Williams, D. Lloyd & Christopher H. George. Microwave electric field at 2.45 GHz modulates the beta adrenergic response of human embryonic stem cell-derived cardiomyocytes. BioEM2018 Piran, Portoroz, Slovenia Jun 25th - 29th, 2018

375. Crocodile blood fights bacterial infections. Jiraporn Lueangsakulthai & Sarah Maddocks Wales Advances, 2018.

376. Physiology and Pathophysiology 2018: Molecules, Cells, Organs and Systems: David Lloyd.(attendee and chair of a session). Symposium Celebrating Ole Petersen's 75th Birthday, Haydn Ellis Bldg., Maindy Rd., Cardiff, 6th and 7th March 2018

377. Simon Pope. Synthesis, Photophysics and Bioimaging with Organometallics. George Washington University, Washington DC Seminar, Aug 28th 2017.

378. C.F. Williams. IMS Workshop Thermal versus non-thermal effects of electromagnetic waves for biomedical application, 2017 Los Angeles, CA

379. DL Temporal Partitioning of the Yeast Cellular Network: the Cell is a Global Scale-invarient (Fractal or Self-Similar) Multioscillator. Britton Chance 105th Birthday Symposium. University of Pennsylvania, June 11-13, 2018

380. DL Temporal Partitioning of the yeast Cellular Network: the Cell is a Global Scale-invarient (Fractal or Self-Similar) Multioscillator. Physics of Biological Oscillators Nov 27-29, 2018, Chicheley Hall, Buckinghamshire

381. DL Answer to 'Bring me Sunshine', letter New Scientist (unpublished), 2019