

Paul Tofts - Publications

(updated July 15th 2015)

This is a list of publications in journals and books. It does not include conference proceedings or invited lectures.

Up to date information can be obtained from the internet:

www.pubmed.org search for tofts ps or tofts p.

Research ID gives a complete list with number of citations and h-index. My h-index is 60.
(<http://www.researcherid.com/rid/C-8517-2009> 230 publications; over 13000 citations)

Many of the publications can be downloaded as pdf files,

A: Books, chapters

A1. Clinical 31-P NMR spectroscopy.

EB Cady, DT Delpy, **PS Tofts**. in 'Physical principles and clinical applications of Nuclear Magnetic Resonance' ed RA Lerski. pub Institute of Physical Scientists in Medicine (1985)

A2. Tissue localization in surface coil nuclear magnetic resonance (NMR) spectroscopy.

PS Tofts. In: Neonatal physiological measurements pp363-372. Ed P.Rolfe. Butterworths, London (1986).

A3. Cerebral metabolism in newborn infants studied by phosphorus nuclear magnetic resonance spectroscopy.

PL Hope, AM de L Costello, EB Cady, DT Delpy, **PS Tofts**, A Chu, EOR Reynolds, DR Wilkie. In: Neonatal physiological measurements pp382-389. Ed P.Rolfe. Butterworths, London (1986).

A4. Networks and image handling.

Proceedings of a conference organised by the Institute of Physical Scientists in Medicine (IPSM), Cardiff 1986.

Paul S Tofts and R Cranage (eds). Published by IPSM, London. 1987.

A5. The MRI measurement of NMR and physiological parameters in tissue to study disease process.

PS Tofts, DAG Wicks and GJ Barker. XIth international conference on Information Processing in Medical Imaging pp313-326 (ed. D.Ortendahl,; Wiley-Liss, New York 1990).

A6. Changing activity in MS lesions: an MRI study.

AG Kermode, **PS Tofts**, AJ Thompson, P Rudge, DG MacManus, BE Kendall, IF Moseley, DPE Kingsley and WI McDonald.

In: Recent Advances in multiple sclerosis therapy. eds Gonsette RE and Delmotte P. pp43-46. International congress series, Amsterdam, Elsevier (1989).

A7. Quantitative information on bones and muscles from the EMI CT5005 whole body scanner.

PS Tofts, SR Grindrod. Information Processing in Medical Imaging INSERM 88:121-134 (Paris 1980).

A8. Functional imaging, magnetisation transfer and relaxation times.

PS Tofts. In: Nato advanced workshop on MR techniques and epilepsy (ed SD Shorvon, DR Fish, GM Bydder and H Stefan); New York; Plenum press 1994; p275-279. (1994)

A9. The significance of T₂ changes in the hippocampus.

PS Tofts. In: Nato advanced workshop on MR techniques and epilepsy (eds SD Shorvon, DR Fish, GM Bydder and H Stefan); New York; Plenum press 1994; p71-73. (1994)

A10. Welcome Witness seminar: making the body transparent: the impact of Nuclear Magnetic Resonance and Magnetic Resonance Imaging. Participant and contributor at a meeting held at the Wellcome Institute 2 July 1996. In Welcome Witnesses to Twentieth Century Medicine vol 2 1998.

A11. **Tofts,P.S.** (2003). Concepts: measurement and MR. Chapter 1 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 3-15. ISBN: 0-470-84721-2 [reprint](#)

A12. **Tofts,P.S.** (2003). The measurement process: MR data collection and image analysis. Chapter 2 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 17-54. ISBN: 0-470-84721-2 [reprint](#)

A13. **Tofts,P.S.** (2003). QA: quality assurance, accuracy, precision and phantoms. Chapter 3 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 55-81. ISBN: 0-470-84721-2 [reprint](#)

A14. **Tofts,P.S.** (2003). PD: proton density of tissue water. Chapter 4 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 85-109. ISBN: 0-470-84721-2 [reprint](#)

A15. **Tofts,P.S.**, Steens,S.C.A., van Buchem,M.A. (2003). MT: magnetization transfer. Chapter 8 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 257-298. ISBN: 0-470-84721-2

A16. **Tofts,P.S.**, Waldman,A.D. (2003). Spectroscopy: [1]H metabolite concentrations. Chapter 9 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 299-339. ISBN: 0-470-84721-2

A17. **Tofts,P.S.**, Davies,G.R., Dehmeshki,J. (2003). Histograms: measuring subtle diffuse disease. Chapter 18 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 581-610. ISBN: 0-470-84721-2 [reprint](#)

A18. **Tofts,P.S.** (2003). The future of qMR: conclusions and speculation. Chapter 19 in Tofts,P.S. (ed.) *Quantitative MRI of the brain: measuring changes caused by disease*. Chichester: John Wiley, 613-617. ISBN: 0-470-84721-2

A19. Dowell NG, Tofts PS (2011). Quality Assurance for Diffusion MRI. Chapter 19 in

Jones DK (editor) *Diffusion MRI: Theory, Methods, and Applications* (publisher: OUP) pp319-330. [preprint](#)

A20. **Tofts PS**, Parker GJM (2013). DCE-MRI: acquisition and analysis techniques. Chapter 4 (pp58-74) in Barker PB, Golay X, Zaharchuk G (eds) *Clinical Perfusion MRI*. Cambridge University Press, New York ISBN: 978-1-107-01339-1 [reprint](#)

A21. Tofts PS. The early days of modeling contrast agent kinetics. Chapter 111 in MR and CT perfusion and pharmacokinetic imaging: clinical applications and theory. Bammer R (ed) Feb 2016. Author's [preprint](#)

B: Peer reviewed articles

1975-86

B1. A continuous wave NMR millidegree thermometer.

MG Richards, **PS Tofts**, PR Turner. *Cryogenics* 13: 182-185 (1973).

B2. Frequency dependence of T1 for He-3 in solid He-4.

MG Richards, JH Smith, **PS Tofts**, WJ Mullin. *Physics Review Letters* 34:1545-1547 (1975).

B3. The motion of He-3 impurity in solid He-4.

MG Richards, JH Smith, **PS Tofts**, WJ Mullin. *Soviet Journal of Low Temperature Physics* 1: 275-277 (1975).

B4. NMR measurements on dilute solutions of He-3 in solid He-4.

MG Richards, J Pope, **PS Tofts**, JH Smith. *Journal of Low Temperature Physics* 24: 1-24 (1976).

B5. Statistical limitations in computed tomography.

JC Gore, **PS Tofts**. *Phys Med Biol* 23:1176-1182 (1978).

B6. Transit times and ratio of moments.

PS Tofts, AD Linney. *Phys Med Biol* 24:455 (1979).

B6. A multicentre comparison of computer assisted image processing and display methods.

AS Houston, PF Sharp, **PS Tofts**, BL Diffey. *Phys Med Biol* 24:547-558 (1979).

B8. Absolute values of attenuation coefficient in computed tomography. (letter)

JC Gore, **PS Tofts**. *Phys Med Biol* 24:828-830 (1979).

B9. Some sources of artefact in computed tomography.

PS Tofts, JC Gore. *Phys Med Biol* 25:117-127 (1980).

B10. Definitions of effective energy in computed tomography.

PS Tofts. *Phys Med Biol* 26:313-317 (1981).

- B11. Investigation of human skeletal muscle structure and composition by X-ray computerised tomography.
Sue Grindrod, **Paul Tofts**, Richard Edwards. *European Journal of Clinical Investigation* 13:465-468 (1983).
- B12. Non-invasive investigation of cerebral metabolism in newborn infants by phosphorus nuclear magnetic resonance spectroscopy.
EB Cady, AM de L Costello, MJ Dawson, DT Delpy, PL Hope, EOR Reynolds, **PS Tofts**, DR Wilkie. *Lancet* (i) 1059-1062 (1983).
- B13. Size and composition of the calf and quadriceps muscles in Duchenne muscular dystrophy.
DA Jones, JM Round, RHT Edwards, SR Grindrod, **PS Tofts**. *Journal of the Neurological Sciences* 60:307-322 (1983).
- B14. Cerebral energy metabolism studied with phosphorus NMR spectroscopy in normal and birth-asphyxiated infants.
PL Hope, AM de L Costello, EB Cady, DT Delpy, **PS Tofts**, A Chu, PA Hamilton, EOR Reynolds, DR Wilkie. *Lancet* (ii) 366-370 (1984).
- B15. Surface coil NMR spectroscopy of brain.
PS Tofts, EB Cady, DT Delpy, AM de L Costello, PL Hope, EOR Reynolds, DR Wilkie, SJ Gould, D Edwards. *Lancet* (i) 459 (1984).
- B16. Changes in brain phosphorus metabolites during the post natal development of the rat.
Paul Tofts and Susan Wray. *J Physiol* 359:417-429 (1985)
- B17. Direct in-vivo measurement of absolute metabolite concentrations using ³¹P nuclear magnetic resonance.
S Wray and **PS Tofts**. *Biochem Biophys Acta* 886:399-405 (1986).
- B18. Magnetic resonance imaging of experimental cerebral oedema.
D Barnes, WI McDonald, **PS Tofts**, G Johnson, DN Landon. *J Neurol Neurosurg Psychiatry* 49:1341-1347 (1986).

1987

- B19. A SAFE (Saturate AFter the Echo) sequence to eliminate an artefact in the measurement of T2 in partially saturated NMR systems.
Paul S Tofts and G Johnson. *Phys Med Biol* 32:1345-1353 (1987). Download [pdf](#)
- B20. Accuracy and precision in the measurement of relaxation times from nuclear magnetic resonance images.
G Johnson, IEC Ormerod, D Barnes, **PS Tofts**, D MacManus. *Brit J Radiol* 60:143-153 (1987).
- B21. Accuracy and precision in the measurement of relaxation times in NMR imaging.
G Johnson, IEC Ormerod, D Barnes, **PS Tofts**, D MacManus. *Brit J Radiol* 60:1041-1042 (1987). Letter.

- B22. Edited 31-P brain spectra using Maximum Entropy data processing.
ML Waller and **Paul S Tofts**. Magn Reson Med 4:385-392 (1987).
- B23. Measurement of NMR relaxation times using the minimum number of scans.
G Johnson, IEC Ormerod, **PS Tofts**, D Barnes, EPGH du Boulay. Stockholm 1986. Acta Radiologica supplement 369:496-499 (1987)
- B24. Quantitative nuclear magnetic resonance imaging: characterisation of experimental cerebral oedema.
D Barnes, WI McDonald, G Johnson, **PS Tofts**, DN Landon. J Neurol Neurosurg Psychiatry 50:125-133 (1987).
- B25. STIR sequences in NMR imaging of the optic nerve.
G Johnson, DH Miller, D MacManus, **PS Tofts**, D Barnes, EPGH du Boulay, WI McDonald. Neuroradiology 29:238-245 (1987).
- B26. The NMR signal decay characteristics of cerebral oedema.
D Barnes, EPGH du Boulay, WI McDonald, G Johnson, **PS Tofts**. Stockholm 1986. Acta Radiologica supplement 369:503-506 (1987).
- B27. The role of NMR imaging in the assessment of multiple sclerosis and 'isolated' neurological lesions: a quantitative study.
IEC Ormerod, DH Miller, WI McDonald, EPGH du Boulay, P Rudge, BE Kendell, IF Moseley, G Johnson, AM Halliday, F Scarivilli, **PS Tofts**, KJ Zilka. Brain 110:1579-1616 (1987) [pdf](#)

1988

- B28. A critical assessment of methods of measuring metabolite concentrations by NMR spectroscopy.
PS Tofts and S Wray. NMR in Biomedicine 1:1-10 (1988).
- B29. Non-invasive measurement of molar concentrations of 31-P metabolites in-vivo, using surface coil spectroscopy.
Paul S Tofts and Susan Wray. Magn Reson Med 6:84-86 (1988).
- B30. The noninvasive measurement of absolute metabolite concentrations in-vivo using surface coil NMR spectroscopy.
Paul S Tofts. J Magn Reson 80:84-95 (1988).
- B31. Multiline chemical-shift (MULCH) imaging.
G Johnson and **PS Tofts**. Magn Reson Med 6:107-115 (1988).
- B32. Ring artefacts in x-ray computed tomography.
RW Cranage and **PS Tofts**. Brit J Radiol 61:529 (1988).
- B33. The early lesion of multiple sclerosis.
AG Kermode, **PS Tofts**, DG MacManus, BE Kendall, DPE Kingsley, IF Moseley, EPGH du Boulay, WI McDonald. Lancet (ii) 1203-1204 (1988).

B34. 19-F imaging of cerebral blood oxygenation in experimental middle cerebral artery occlusion: preliminary results.
D Eidelberg, G Johnson, **PS Tofts**, J Dobbin, HA Crockard, D Plummer. J Cerebral blood flow and metabolism 8:276-281 (1988).

B35. 19-F NMR imaging of blood oxygenation in the brain.
D Eidelberg, G Johnson, D Barnes, **PS Tofts**, D Delpy, D Plummer and WI McDonald. Magn Reson Med 6:344-352 (1988).

1989

B36. Blood brain permeability measured in multiple sclerosis using labelled DTPA with PET, CT and MRI.
PS Tofts, AG Kermode. Journal of Neurology, Neurosurgery and Psychiatry 52:1019-1020 (1989).

B37. Precise relaxation time measurements of normal appearing white matter in inflammatory central nervous system disease.
DH Miller, G Johnson, **PS Tofts**, D Macmanus and WI McDonald. Magn Reson Med 11:331-336 (1989).

B38. Use of greyscale voxel databases for improved shading and segmentation.
S.R.Arridge, S.R.Grindrod, A.D.Linney, **P.S.Tofts** and D.Wicks,. Medical Informatics 14:157-171 (1989).

1990

B39. Nasal orientation device to control head movement during CT and MR studies.
PS Tofts, AG Kermode, DG MacManus and WH Robinson. Journal of Computer Assisted Tomography 14:163-164 (1990). Download [pdf](#)

B40. The distribution of induced currents in magnetic stimulation of the brain.
PS Tofts. Physics in Medicine and Biology 35:1119-1128 (1990).

B41. Towards quantitative measurements of relaxation times and other parameters in the brain.
PS Tofts and EPGH du Boulay. Neuroradiology 32:407-415 (1990). Download [pdf](#)

B42. Breakdown of the blood-brain barrier precedes symptoms and other MRI signs of new lesions in multiple sclerosis: pathogenetic and clinical implications.
AG Kermode, AJ Thompson, **PS Tofts**, DG MacManus, BE Kendall, DPE Kingsley, IF Moseley, P Rudge, WI McDonald. Brain 113:1477-1489 (1990). Download [pdf](#)

B43. Duration and selectivity of blood-brain barrier breakdown in chronic relapsing experimental allergic encephalomyelitis studied by gadolinium-DTPA and protein markers.
CP Hawkins, PMG Munro, F Mackenzie, J Kesselring, **PS Tofts**, EPGH du Boulay, DN Landon, WI McDonald. Brain 113:365-378 (1990).

B44. Heterogeneity of blood-brain barrier changes in multiple sclerosis: an MRI study with gadolinium-DTPA enhancement.

AG Kermode, **PS Tofts**, AJ Thompson, DG MacManus, P Rudge, BE Kendall, DPE Kingsley, IF Moseley, EPGH du Boulay and WI McDonald. *Neurology* 40:229-235 (1990).

B45. Magnetic stimulation of a volume conductor produces a negligible component of induced current perpendicular to the surface.

NM Branston and **PS Tofts**. *J Physiol* 423:67P (1990).

B46. Non-invasive measurement of human blood-brain barrier transfer constant using dynamic magnetic resonance imaging.

AG Kermode and **PS Tofts**. *J Physiol* 423:42P (1990).

B47. Transcranial magnetic stimulation.

NB Branston and **PS Tofts**. *Neurology* 40:1909 (1990). Letter.

1991

B48. Measurement of the Blood-Brain Barrier permeability and leakage space using dynamic MR imaging - 1 Fundamental concepts.

PS Tofts and AG Kermode. *Magnetic Resonance in Medicine* 17:357-367 (1991). Download [pdf](#)

B49. The measurement of electric field, and the influence of surface charge, in magnetic stimulation.

PS Tofts and NM Branston. *Electroencephalography and clinical Neurophysiology* 81:238-239 (1991).

B50. Analysis of the distribution of currents induced by a changing magnetic field in a volume conductor. NM Branston and **PS Tofts**. *Phys Med Biol* 36:161-168 (1991).

B51. Onset and duration of blood-brain barrier breakdown in multiple sclerosis.

AG Kermode, AJ Thompson, **PS Tofts**, DG MacManus, S Moore, BE Kendall, DPE Kingsley, IF Moseley, WI McDonald. *American Academy of Neurology. Neurology* 33:125-126 (1991).

B52. Patterns of blood-brain barrier breakdown in inflammatory demyelination.

CP Hawkins, F MacKenzie, **P(S) Tofts**, EPGH DuBoulay and WI MacDonald. *Brain* 114:801-810 (1991).

B53. Sources of T1 variance in normal human white matter.

I Harvey, **PS Tofts**, JK Morris, DAG Wicks, and MA Ron. *Magn Reson Imag* 9:53-59 (1991).

B54. The pathophysiology of acute optic neuritis. An association of gadolinium leakage with clinical and electrophysiological deficits. BD Youl, G Turano, DH Miller, AD Towell, DG MacManus, SG Moore, SJ Jones, G Barrett, BE Kendall, IF Moseley, **PS Tofts**, AM Halliday and WI McDonald. *Brain* 114:2437-2450 (1991).

1992

B55. Accurate and precise measurement of blood-retinal barrier breakdown using dynamic Gd-DTPA MRI.

BA Berkowitz, **PS Tofts**, HA Sen, N Ando and E de Juan. Investigative Ophthalmology and Visual Science 33:3500-3506 (1992).

B56. In-vivo T1 values from guinea pig brain depend on body temperature.

BD Youl, CP Hawkins, JK Morris, EPGH DuBoulay and **PS Tofts**. Magn Reson Med 24:170-173 (1992).

B57. Measurement of Blood Brain Barrier permeability using dynamic Gd-DTPA scanning - a comparison of methods.

HBW Larsson and **PS Tofts**. Magn Reson Med 24:174-176 (1992).

B58. Semiautomated quality assurance for quantitative magnetic resonance imaging.

G Barker and **PS Tofts**. Magn Reson Imag 10:585-595 (1992).

B59. Volume measurement of multiple sclerosis lesions with magnetic resonance images.

DAG Wicks, **PS Tofts**, DH Miller, GH du Boulay, A Feinstein, RP Sacares, I Harvey, R Brenner and WI McDonald. Neuroradiology 34:475-479 (1992).

1993

B60. Ni-DTPA doped agarose gel - a phantom material for Gd-DTPA enhancement measurements.

PS Tofts, B Shuter and JM Pope. Magn Reson Imag 11:125-133 (1993).

B61. Rapid measurement of capillary permeability using the early part of the dynamic Gd-DTPA MRI enhancement curve.

PS Tofts and BA Berkowitz. J Magn Reson (series B) 102:129-136 (1993).

B62. A chemical shift selective inversion recovery sequence for fat-suppressed MRI: theory and experimental validation.

E Kaldoudi, SCR Williams, GJ Barker and **PS Tofts**. Magn Reson Imag 11:341-355 (1993).

B63. Correction of intensity non-uniformity in magnetic resonance images of any orientation.

DAG Wicks, G Barker, **PS Tofts**. Magn Reson Imag 11:183-196 (1993). Download [pdf](#)

B64. Database for serial magnetic resonance imaging in multiple sclerosis.

F Barkhof, AJ Thompson, L Kappos, JJP Nauta, T Yousri, I Berry, G Scotti, B Appel, **PS Tofts** and DH Miller. Neuroradiology 35:362-366 (1993).

B65. Detection of myelin breakdown products by proton magnetic resonance spectroscopy.

CA Davie, CP Hawkins, GJ Barker, A Brennan, **PS Tofts**, DH Miller, WI McDonald. Lancet (i):630-631 (1993).

B66. Spinal cord MRI using multi-array coils and fast spin echo 1: technical aspects and findings

in healthy adults.

JW Thorpe, D Kidd, BE Kendall, **PS Tofts**, GJ Barker, AJ Thompson, DG MacManus, WI McDonald and DH Miller. *Neurology* 43:2625-2631 (1993).

1994

B67. Correction of nonuniformity in images of the spine and optic nerve from fixed receive-only surface coils at 1.5T.

PS Tofts, GJ Barker, AMK Simmons, D MacManus, J Thorpe, A Gass and DH Miller. *J Comput Assist Tomogr* 18:997-1003 (1994).

B68. Measurement of capillary permeability from the Gd enhancement curve - a comparison of bolus and constant infusion injection methods.

PS Tofts and B Berkowitz. *Magnetic Resonance Imaging* 12:81-91 (1994). Download [pdf](#)

B69. Standing waves in uniform water phantoms.

PS Tofts. *J Magn Reson series B* 104:143-147 (1994). Download [pdf](#)

B70. A method for visualisation of MRI partial volume regions - PAIR (PARTIAL volume sensitised Inversion Recovery Imaging).

A Simmons, GJ Barker, **PS Tofts**, A Gass and SR Arridge. *Magn Reson Imaging* 12:821-826 (1994).

B71. Benign and secondary progressive multiple sclerosis: a preliminary quantitative MRI study.

M Filippi, GJ Barker, MA Horsfield, PR Sacares, DG MacManus, AJ Thompson, **PS Tofts**, WI McDonald, DH Miller. *J Neurol* 241:246-251 (1994).

B72. Correlation of Magnetisation Transfer Ratio with Clinical Disability in Multiple Sclerosis.

A Gass, GJ Barker, D Kidd, JW Thorpe, D MacManus, A Brennan, **PS Tofts**, AJ Thompson, WI McDonald and DH Miller. *Annals of Neurology* 36:62-67 (1994). Download [pdf](#)

B73. Detection of multiple sclerosis by magnetic resonance imaging.

JW Thorpe, GJ Barker, DG MacManus, IF Moseley, **PS Tofts**, DH Miller. *Lancet* 344:1235.

B74. Effect of vitreous fluidity on the measurement of blood-retinal barrier permeability using contrast enhanced MRI.

BA Berkowitz, CA Wilson, **PS Tofts**, RM Peshock. *Magn Reson Med* 31:61-66 (1994).

B75. Improvements to the quality of MRI cluster analysis.

A Simmons, SR Arridge, GJ Barker, AJ Cluckie, **PS Tofts**. *Magn Reson Imag* 12:1191-1204 (1994).

B76. Proton MRS in Huntington's disease.

CA Davie, GJ Barker, N Quinn, **PS Tofts**, DH Miller. *Lancet* 343:1580 (1994).

B77. Serial proton magnetic resonance spectroscopy in acute multiple sclerosis lesions.

CA Davie, CP Hawkins, GJ Barker, A Brennan, **PS Tofts**, DH Miller, WI McDonald. *Brain* 117:49-58 (1994).

B78. Short tau inversion recovery fast spin-echo (Fast STIR) imaging of the spinal cord in multiple sclerosis.

JW Thorpe, DG MacManus, BE Kendall, **PS Tofts**, GJ Barker, WI McDonald and DH Miller. Magn Reson Imag 12:983-989 (1994). Download [pdf](#)

B79. Sources of intensity non-uniformity in spin echo images at 1.5T

A Simmons, **PS Tofts**, GJ Barker and SR Arridge. Magn Reson Med 32:121-128 (1994). Download [pdf](#)

B80. The role of diffusion in NMR imaging of the CNS.

MA Horsfield, C Davie, **PS Tofts** and DH Miller. Argomenti di Neurologia 4:84-89 (1994)

1995

B81. MR magnetisation transfer measurements in temporal lobe epilepsy.

PS Tofts, S Sisodiya, GJ Barker, S Webb, D MacManus, D Fish, S Shorvon. Am J NeuroRadiology 16:1862-1863 (1995).

B82. Novel MR image contrast mechanisms in epilepsy.

Paul S Tofts. Magn Reson Imag 13:1099-1106;1995.

B83. Quantitative analysis of dynamic Gd-DTPA enhancement in breast tumours using a permeability model.

PS Tofts B Berkowitz and M Schnall. Magn Reson Med 33:564-568 (1995). Download [pdf](#)

B84. Differentiation of multiple system atrophy from idiopathic Parkinson's disease using proton magnetic resonance spectroscopy.

CA Davie, GK Wenning, GJ Barker, **PS Tofts**, BE Kendall, N Quinn, WI McDonald, CD Marsden, DH Miller. Annals of Neurology 37:204-210 (1995).

B85. High resolution magnetic resonance imaging of the anterior visual pathway in patients with optic neuropathies using fast spin echo and phased array local coils.

A Gass, GJ Barker, D MacManus, M Sanders, P Riordan-Eva, **PS Tofts**, J Thorpe, WI McDonald, IF Moseley, DH Miller. J Neurol Neurosurg Psychiatry 58:562-569 (1995).

B86. Magnetisation transfer ratios and transverse magnetisation decay curves in optic neuritis: correlation with clinical findings and electrophysiology.

JW Thorpe, GJ Barker, SJ Jones, I Moseley, N Losseff, DG MacManus, S Webb, C Mortimer, DL Plummer, **PS Tofts**, WI McDonald and DH Miller. J Neurology Neurosurgery Psychiatry 59:487-492 (1995).

B87. Persistent functional deficit in multiple sclerosis and autosomal dominant cerebellar ataxia is associated with axon loss.

CA Davie, GJ Barker, S. Webb, **PS Tofts**, AJ Thompson, AE Harding, WI McDonald, DH Miller. Brain 118:1583-1592 (1995). (erratum in Brain 119:1415 (1996)) Download [pdf](#)

B88. Proton magnetic resonance spectroscopy: an *in vivo* method of estimating hippocampal

neuronal depletion in schizophrenia.

M Maier, MA Ron, GJ Barker, **PS Tofts**. *Psychological Medicine* 25:1201-1209 (1995).
[erratum *Psychological Medicine* 26:877 (1996)]

B89. Quantitative assessment of MRI lesion load in monitoring the evolution of multiple sclerosis.
M.Filippi, MA Horsfield, **PS Tofts**, F Barkhof, AJ Thompson, DH Miller. *Brain* 118:1601-1612;1995.

B90. The effect of sacrifice on image signal, T1, T2 and T2* in liver, kidney, and brain of the Wistar rat.

B Shuter, **PS Tofts** and JM Pope. *Magn Reson Imag* 13:563-574 (1995).

1996

B91. Optimal detection of blood-brain barrier defects with Gd-DTPA MRI - the influences of delayed imaging and optimised repetition time.

PS Tofts. *Magn Reson Imag* 14:373-380 (1996). Download [pdf](#)

B92. An interleaved sequence for accurate and reproducible clinical measurement of magnetization transfer ratio.

GJ Barker, **PS Tofts** and A Gass. *Magn Reson Imag* 14:403-411 (1996)

B93. Apparent diffusion coefficients in benign and secondary progressive multiple sclerosis by nuclear magnetic resonance.

MA Horsfield, M Lai, SL Webb, GJ Barker, **PS Tofts**, R Turner, P Rudge, DH Miller. *Magn Reson Med* 36:393-400 (1996).

B94. Lesion volume measurement in multiple sclerosis: how important is accurate repositioning?
ML GawneCain, S. Webb, **P(S) Tofts**, DH Miller. *J Magn Reson Imag* 6:705-713 (1996).

B95. Macroscopic and microscopic assessments of disease burden by MRI in multiple sclerosis: relationship to clinical parameters.

C Gasperini, MA Horsfield, JW Thorpe, D Kidd, GJ Barker, **PS Tofts**, DG MacManus, AJ Thompson, DH Miller, WI McDonald. *J Magn Reson Imag* 6:580-584 (1996).

B96. Magnetic resonance imaging in epilepsy with a fast FLAIR sequence.

UC Wiesmann, SL Free, AD Everitt, PA Bartlett, GJ Barker, **PS Tofts**, JS Duncan, SD Shorvon, JM Stevens. *J Neurology Neurosurgery and Psychiatry* 61:357-361 (1996).

B97. MRI of the optic nerve in benign intracranial hypertension.

A Gass, GJ Barker, P Riordan-Eva, D MacManus, M Sanders, **PS Tofts**, WI McDonald, IF Moseley, DH Miller. *Neuroradiology* 38:769-773 (1996).

B98. Quantification of MRI lesion load in multiple sclerosis: a comparison of three computer-assisted techniques.

Grimaud J, Lai M, Thorpe J, Adeleine P, Wang L, Barker GJ, Plummer DL, **Tofts PS**, McDonald WI, Miller DH. *Magnetic Resonance Imaging* 14:495-505 (1996).

B99. Spinal cord atrophy and disability in multiple sclerosis: a new reproducible and sensitive MRI method with potential to monitor disease progression.
Losseff NA, Webb SL, O'Riordan JI, Page R, Wang L, Barker GJ, **Tofts PS**, McDonald WI, Miller DH, Thompson AJ. *Brain* 119:701-708 (1996). Download [pdf](#)

B100. The relaxivity of Gd-EOB-DTPA and Gd-DTPA in liver and kidney of the Wistar rat.
B Shuter, **PS Tofts**, S-C Wang and JM Pope. *Magn Reson Imag* 14:243-253 (1996).

1997

B101. A low dielectric constant customised phantom design to measure RF coil nonuniformity.
PS Tofts, GJ Barker, TL Dean, H Gallagher, AP Gregory, RN Clarke. *Magn Reson Imag* 15:(1) 69-75 (1997).

B102. An Oblique Cylinder Contrast-Adjusted (OCCA) phantom to measure the accuracy of brain lesion volume estimation schemes in multiple sclerosis. Download [pdf](#)
PS Tofts, GJ Barker, M Filippi, M Gawne-Cain, M Lai. *Magn Reson Imag* 15:183-192 (1997).

B103. Modeling tracer kinetics in dynamic Gd-DTPA MR imaging
PS Tofts. *J Magnetic Resonance Imaging* 7:91-101 (1997). Download [pdf](#)

B104. ¹H magnetic resonance spectroscopy of chronic cerebral white matter lesions and normal appearing white matter in multiple sclerosis.
CA Davie, GJ Barker, AJ Thompson, **PS Tofts**, WI McDonald, DH Miller. *J Neurology Neurosurgery and Psychiatry* 63:736-742 (1997).

B105. Magnetisation transfer ratio of normal brain white matter: a normative database spanning four decades of life.
NC Silver, GJ Barker, DG MacManus, **PS Tofts**, DH Miller. *J Neurol Neurosurg Psychiatry* 62:223-228 (1997).

B106. Serial magnetisation transfer ratios in gadolinium-enhancing lesions in multiple sclerosis.
HM Lai, CA Davie, A Gass, GJ Barker, S Webb, **PS Tofts**, AJ Thompson, WI McDonald, DH Miller. *J Neurol* 244:308-311 (1997).

B107. Strategies for optimizing MR imaging techniques aimed at monitoring disease activity in multiple sclerosis trials.
F Barkhof, M Filippi, D Miller, **P Tofts**, L Kappos, A Thompson. *J Neurol* 244:76-84 (1997).

B108. The transverse magnetisation decay characteristics of longstanding lesions and normal-appearing white matter in multiple sclerosis.
D Kidd, GJ Barker, **PS Tofts**, A Gass, AJ Thompson, WI McDonald, DH Miller. *J Neurology* 244:125-130 (1997).

1998

B109. Standardisation and optimisation of magnetic resonance techniques for multicentre studies.

PS Tofts. J Neurology Neurosurgery and Psychiatry 1998; 64 (supplement 1):S37-43.

B110. Application of the extremum stack to neurological MRI.

Simmons A, Arridge SR, **Tofts PS**, Barker GJ. IEEE Trans Med Imaging 1998;17(3):371-382

B111. A simple method for investigating the effects of non-uniformity of radiofrequency transmission and radiofrequency reception in MRI.

GJ Barker, A Simmons, SR Arridge, **PS Tofts**. Brit J Radiology 71:59-67 (1998).

B112. Correction for variations in MRI scanner sensitivity in brain studies with histogram matching

L Wang, HM Lai, GJ Barker, DH Miller, **PS Tofts**. Magn Reson Med 1998; 39:322-327.

B113. Guidelines for using quantitative measures of brain magnetic resonance imaging abnormalities in monitoring the treatment of multiple sclerosis.

M Filippi, MA Horsfield, HJ Ader, F Barkhof, P Bruzzi, A Evans, JA Frank, RI Grossman, HF McFarland, P Molyneux, DW Paty, J Simon, **PS Tofts**, J Wolinsky, DH Miller. Ann Neurol 1998; 43:499-506.

B114. Precision and reliability for measurement of change in MRI lesion volume in multiple sclerosis: a comparison of two computer assisted techniques.

Molyneux PD, **Tofts PS**, Fletcher A, Gunn B, Robinson P, Gallagher H, Moseley IF, Barker GJ, Miller DH. J Neurol Neurosurg Psychiatry 1998 Jul;65(1):42-7.

B115. Quantitative techniques for lesion load measurement in multiple sclerosis: an assessment of the global threshold technique after non uniformity and histogram matching corrections.

Molyneux PD, Wang L, Lai M, J G, **Tofts PS**, Moseley IF, H D. Eur J Neurol 1998 5:55-60.

B116. T1 hypointense lesion load in secondary progressive multiple sclerosis: a comparison of pre versus post contrast loads and of manual versus semi automated threshold techniques for lesion segmentation.

O'Riordan JI, Gawne Cain M, Coles A, Wang L, Compston DA, **Tofts P(S)**, Miller DH. Mult Scler 1998; 4:408-12.

B117. The effect of section thickness on MR lesion detection and quantification in multiple sclerosis.

Molyneux PD, Tubridy N, Parker GJ, Barker GJ, MacManus DG, **Tofts PS**, Moseley IF, Miller DH. AJNR Am J Neuroradiol 1998;19:1715-20.

1999

B118. Estimating kinetic parameters from dynamic contrast-enhanced T₁-weighted MRI of a diffusable tracer: standardized quantities and symbols. **PS Tofts**, G Brix, DL Buckley, JL

Evelhoch, E Henderson, M Knopp, HBW Larsson, T-Y Lee, NA Mayr, GJM Parker, RE Port, J Taylor, RM Weisskoff. Journal of Magnetic Resonance Imaging 1999;10:223-232. Review. [pdf](#)

B119. A multicenter measurement of magnetization transfer ratio in normal white matter.

I Berry, GJ Barker, F Barkhof, A Campi, V Dousset, JM Franconi, A Gass, W Schreiber, DH

Miller **PS Tofts**. J Magn Reson Imag 1999;9:441-446.

B120. An in Vivo Evaluation of the Effects of Local Magnetic Susceptibility-Induced Gradients on Water Diffusion Measurements in Human Brain.

CA Clark, GJ Barker, **PS Tofts**. Journal of Magnetic Resonance 1999;141(1):52-61.

B121. Correlation of magnetic resonance imaging parameters with clinical disability in multiple sclerosis: a preliminary study.

Grimaud J, Barker GJ, Wang L, Lai M, MacManus DG, Webb SL, Thompson AJ, McDonald WI, **Tofts PS**, Miller DH. J Neurol 1999; 246:961-967.

B122. Does the extent of axonal loss and demyelination from chronic lesions in multiple sclerosis correlate with the clinical subgroup?

CA Davie, NC Silver, GJ Barker, **PS Tofts**, AJ Thompson, WI McDonald, DH Miller. Journal of Neurology, Neurosurgery and Psychiatry 1999; 67:710-715.

B123. Hippocampal Layers on High Resolution Magnetic Resonance Images: Real or Imaginary?

UC Wiesmann, MR Symms, JP Mottershead, DG MacManus, GJ Barker, **PS Tofts**, T Revesz, JM Stevens, SD Shorvon. J Anatomy 1999;195 (pt 1):131-135

B124. Magnetic resonance diffusion imaging of the human cervical spinal cord in vivo.

CA Clark, GJ Barker, **PS Tofts**. Magn Reson Med 1999; 41:1269-1273.

B125. MR Imaging of Tumor Microcirculation: Promise for the New Millenium.

Taylor, JS, **Tofts PS**, Port R, Evelhoch JL, Knopp M, Reddick WE, Runge VM, Mayr N. Journal of Magnetic Resonance Imaging 1999;10:903-907.

B126. Pharmacokinetic analysis of neoplasms using contrast-enhanced dynamic MR imaging.

GJM Parker, **PS Tofts**. Topics in Magnetic Resonance Imaging. 1999;10:130-142. Review.

B127. Texture analysis of spinal cord pathology in multiple sclerosis

JM Mathias, **PS Tofts**, NA Losseff. Magn Reson Med 1999; 42:929-935.

2000

B128. Test liquids for quantitative MRI measurements of self-diffusion coefficient in-vivo.

PS Tofts, D Lloyd, CA Clark, GJ Barker, GJM Parker, P McConville, C Baldock, JM Pope. Magn Reson Med 2000; 43:368-374. Download [pdf](#)

B129. Improved reduction of motion artifacts in diffusion imaging using navigator echoes and velocity compensation. Clark CA, Barker GJ, **Tofts PS**. Journal of Magnetic Resonance 2000; 142:358-363.

B130. Magnetization transfer imaging.

van Buchem MA, **Tofts PS**. Neuroimaging Clin N Am. 2000;10:771-788

B131. Variations in T1 and T2 relaxation times of normal appearing white matter and lesions in multiple sclerosis.

Stevenson VL, Parker GJM, Barker GJ, Birnie K, **Tofts PS**, Miller DH, Thompson AJ. Journal

of Neurological Sciences 2000; 178:81-87

B132. Volunteer studies replacing animal experiments in brain research.
Langley G, Harding G, Hawkins P, Jones A, Newman C, Swithenby S, Thompson D, **Tofts P(S)**, Walsh V. *ATLA* 28:315-331 (2000).

2001

B133. Accurate multislice gradient echo T₁ measurement in the presence of non-ideal RF pulse shape and RF field non-uniformity.
Parker GJM, Barker GJ, **Tofts PS**. *Magn Reson Med* 2001; 45:838-845

B134. Analysis of MTR histograms in multiple sclerosis using principal components and multiple discriminant analysis.
Dehmeshki J, Ruto AC, Arridge S, Silver NC, Miller DH, **Tofts PS**. *Magn Reson Med* 2001;46:600-609

B135. Magnetisation transfer ratio histogram analysis of primary progressive and other multiple sclerosis subgroups.
Dehmeshki J, Silver NC, Leary SM, **Tofts PS**, Thompson AJ, Miller DH. *Journal of the Neurological Sciences* 2001; 185:11-17.

B136. Measuring the Human Retinal Oxygenation Response to a Hyperoxic Challenge using MRI: Eliminating blinking artifacts and demonstrating proof of concept.
Berkowitz BA, McDonald C, Ito Y, **Tofts PS**, Latif Z, Gross J. *Magn Reson Med* 2001; 46:412-416.

B137. Quantitative contrast-enhanced magnetic resonance imaging to evaluate blood-brain barrier integrity in multiple sclerosis: a preliminary study.
Silver NC, **Tofts PS**, Symms MR, Barker GJ, Thompson AJ, Miller DH. *Multiple Sclerosis* 2001; 7:75-82

B138. Simple methods for the correction of T₂ maps of phantoms.
Lepage M, **Tofts PS**, Back SAJ, Jayasekera PM, Baldock C. *Magn Reson Med* 2001; 46:1123-9.

2002

B140. ADC mapping of the human optic nerve: increased resolution, coverage, and reliability with CSF-suppressed ZOOM-EPI.
Wheeler-Kingshott CA, Parker GJ, Symms MR, Hickman SJ, **Tofts PS**, Miller DH, Barker GJ. *Magn Reson Med*. 2002; 47:24-31.

B141. Classification of disease subgroup and correlation with disease severity using magnetic resonance imaging whole-brain histograms: application to magnetization transfer ratios and multiple sclerosis.
Dehmeshki J, Barker GJ, **Tofts PS**. *IEEE Trans Med Imaging*. 2002;21:320-31.

B142. Improved accuracy of human cerebral blood perfusion measurements using arterial spin labeling: accounting for capillary water permeability.

Parkes LM, **Tofts PS**. *Magn Reson Med*. 2002; 48:27-41.

B143. Precise estimate of fundamental in-vivo MT parameters in human brain in clinically feasible times. Download [pdf](#)

Ramani A, Dalton C, Miller DH, **Tofts PS**, Barker GJ. *Magn Reson Imaging*. 2002; 20:721-31.

B144. Systemic lupus erythematosus: diagnostic application of magnetization transfer ratio histograms in patients with neuropsychiatric symptoms--initial results.

Dehmeshki J, Van Buchem MA, Bosma GP, Huizinga TW, **Tofts PS**. *Radiology*. 2002; 222:722-8.

2003

B145. Another approach to protons with constricted mobility in white matter: pilot studies using wide-line and high-resolution NMR spectroscopy.

Ramani A, Aliev AE, Barker GJ, **Tofts PS**. *Magn Reson Imaging* 2003; 21:1039-43.

B146. High field MRI correlates of myelin content and axonal density in multiple sclerosis--a post-mortem study of the spinal cord.

Mottershead JP, Schmierer K, Clemence M, Thornton JS, Scaravilli F, Barker GJ, **Tofts PS**, Newcombe J, Cuzner ML, Ordidge RJ, McDonald WI, Miller DH. *J Neurol* 2003; 250:1293-301

B147. The normal appearing grey matter in primary progressive multiple sclerosis: a magnetisation transfer imaging study.

Dehmeshki J, Chard DT, Leary SM, Watt HC, Silver NC, **Tofts PS**, Thompson AJ, Miller DH. *J Neurol* 2003; 250:67-74.

B148. Osteogenic and Ewing sarcomas: estimation of necrotic fraction during induction chemotherapy with dynamic contrast-enhanced MR imaging.

Dyke JP, Panicek DM, Healey JH, Meyers PA, Huvos AG, Schwartz LH, Thaler HT, **Tofts PS**, Gorlick R, Koutcher JA, Ballon D. *Radiology* 2003; 228:271-8.

B149. Preliminary magnetic resonance study of the macromolecular proton fraction in white matter: a potential marker of myelin?

Davies GR, Ramani A, Dalton CM, Tozer DJ, Wheeler-Kingshott CA, Barker GJ, Thompson AJ, Miller DH, **Tofts PS**. *Mult Scler* 2003; 9:246-9.

B150. Quantitative magnetization transfer mapping of bound protons in multiple sclerosis.

Tozer D, Ramani A, Barker GJ, Davies GR, Miller DH, **Tofts PS**. *Magn Reson Med* 2003; 50:83-91. Download [pdf](#). Erratum *Magn Reson Med*. 2005 Feb;53(2):492-3 Download [pdf](#)

B151. Removing spikes caused by quantization noise from high-resolution histograms.

Tozer DJ, **Tofts PS**. *Magn Reson Med* 2003; 50:649-53. Download [pdf](#).

2004

B152. Abnormalities of cerebral perfusion in multiple sclerosis.

Rashid W, Parkes LM, Ingle GT, Chard DT, Toosy AT, Altmann DR, Symms MR, **Tofts PS**, Thompson AJ, Miller DH. *J Neurol Neurosurg Psychiatry* 2004; 75:1288-93

B153. Diffusion tensor imaging of early relapsing-remitting multiple sclerosis with histogram analysis using automated segmentation and brain volume correction.

Rashid W, Hadjiprocopis A, Griffin CM, Chard DT, Davies GR, Barker GJ, **Tofts PS**, Thompson AJ, Miller DH. *Mult Scler* 2004; 10:9-15.

B154. Estimation of the macromolecular proton fraction and bound pool T2 in multiple sclerosis.

Davies GR, Tozer DJ, Cercignani M, Ramani A, Dalton CM, Thompson AJ, Barker GJ, **Tofts PS**, Miller DH. *Mult Scler* 2004; 10:607-13. Download [pdf](#).

B155. Measuring blood volume and vascular transfer constant from dynamic T(2)*-weighted contrast-enhanced MRI.

Johnson G, Wetzel SG, Cha S, Babb J, **Tofts PS**. *Magn Reson Med* 2004;51:961-8.

B156. Normal cerebral perfusion measurements using arterial spin labeling: reproducibility, stability, and age and gender effects.

Parkes LM, Rashid W, Chard DT, **Tofts PS**. *Magn Reson Med* 2004; 51:736-43.

B157. Reproducibility of brain ADC histograms.

Steens SC, Admiraal-Behloul F, Schaap JA, Hoogenraad FG, Wheeler-Kingshott CA, le Cessie S, **Tofts PS**, van Buchem MA. *Eur Radiol* 2004;14:425-30.

2005

B158. The assessment of antiangiogenic and antivascular therapies in early-stage clinical trials using magnetic resonance imaging: issues and recommendations.

Leach MO, Brindle KM, Evelhoch JL, Griffiths JR, Horsman MR, Jackson A, Jayson GC, Judson IR, Knopp MV, Maxwell RJ, McIntyre D, Padhani AR, Price P, Rathbone R, Rustin GJ, **Tofts PS**, Tozer GM, Vennart W, Waterton JC, Williams SR, Workman P; Pharmacodynamic/Pharmacokinetic Technologies Advisory Committee, Drug Development Office, Cancer Research UK. *Br J Cancer* 2005; 92:1599-610. Download [pdf](#).

B159. Assessment and correction of B1-induced errors in magnetization transfer ratio measurements.

Ropele S, Filippi M, Valsasina P, Korteweg T, Barkhof F, **Tofts PS**, Samson R, Miller DH, Fazekas F. *Magn Reson Med* 2005; 53:134-40

B160. Correlation of apparent myelin measures obtained in multiple sclerosis patients and controls from magnetization transfer and multicompartmental T2 analysis.

Tozer DJ, Davies GR, Altmann DR, Miller DH, **Tofts PS**. *Magn Reson Med* 2005; 53:1415-22.

B161. Dynamic contrast enhanced MRI in patients with diabetic macular edema: initial results

Trick GL, Liggett J, Levy J, Adamsons I, Edwards P, Desai U, **Tofts PS**, Berkowitz BA. *Exp Eye Res* 2005; 81:97-102.

B162. Increasing normal-appearing grey and white matter magnetisation transfer ratio abnormality in early relapsing-remitting multiple sclerosis.
Davies GR, Altmann DR, Hadjiprocopis A, Rashid W, Chard DT, Griffin CM, **Tofts PS**, Barker GJ, Kapoor R, Thompson AJ, Miller DH. J Neurol 2005; 252:1037-44

B163. Object strength--an accurate measure for small objects that is insensitive to partial volume effects.

Tofts PS, Silver NC, Barker GJ, Gass A. MAGMA 2005; 18:162-9. Download [pdf](#)

B164. A standardised method for measuring magnetisation transfer ratio on MR imagers from different manufacturers--the EuroMT sequence.

Barker GJ, Schreiber WG, Gass A, Ranjeva JP, Campi A, van Waesberghe JH, Franconi JM, Watt HC, **Tofts PS**. MAGMA 2005; 18:76-80. Download [pdf](#)

B165. Three-dimensional quantitative magnetisation transfer imaging of the human brain.

Cercignani M, Symms MR, Schmierer K, Boulby PA, Tozer DJ, Ron M, **Tofts PS**, Barker GJ. Neuroimage 2005; 27:436-41. Download [pdf](#)

B166. Unbiased segmentation of diffusion-weighted magnetic resonance images of the brain using iterative clustering. Hadjiprocopis A, Rashid W, **Tofts PS**. Magn Reson Imag 2005; 23:877-85.

2006

B167. 1H-MRS internal thermometry in test-objects (phantoms) to within 0.1 K for quality assurance in long-term quantitative MR studies.

Samson RS, Thornton JS, McLean MA, Williams SC, **Tofts PS**. NMR Biomed. 2006;19:560-5.

B168. Principal component and linear discriminant analysis of T1 histograms of white and grey matter in multiple sclerosis.

Tozer DJ, Davies GR, Altmann DR, Miller DH, **Tofts PS**. Magn Reson Imaging. 2006; 24:793-800. [pdf](#)

B169. A simple correction for B1 field errors in magnetization transfer ratio measurements.

Samson RS, Wheeler-Kingshott CA, Symms MR, Tozer DJ, **Tofts PS**. Magn Reson Imag 2006; 24:255-63

B170. Sources of variation in multi-centre brain MTR histogram studies: body-coil transmission eliminates inter-centre differences.

Tofts PS, Steens SC, Cercignani M, Admiraal-Behloul F, Hofman PA, van Osch MJ, Teeuwisse WM, Tozer DJ, van Waesberghe JH, Yeung R, Barker GJ, van Buchem MA. MAGMA. 2006; 19:209-22. Download [pdf](#)

2007

B171. Apparent diffusion coefficient histograms may predict low-grade glioma subtype.

Tozer DJ, Jager HR, Danchev N, Benton CE, **Tofts PS**, Rees JH, Waldman AD. NMR Biomed. 2007; 20:49-57.

B172. Diffusion tensor imaging of post mortem multiple sclerosis brain.
Schmierer K , Wheeler-Kingshott CA, Boulby PA, Scaravilli F, Altmann DR, Barker GJ, **Tofts PS**, Miller DH. Neuroimage 2007;35:467-77.

B173. Fast, accurate, and precise mapping of the RF field in vivo using the 180 degrees signal null.

Dowell NG, **Tofts PS**. Magnetic Resonance in Medicine 2007;58:622-30 [pdf](#)

B174. Magnetization transfer ratio in Alzheimer disease: comparison with volumetric measurements.

Ridha BH, Symms MR, Tozer DJ, Stockton KC, Frost C, Siddique MM, Lewis EB, MacManus DG, Boulby PA, Barker GJ, Rossor MN, Fox NC, **Tofts PS**. AJNR American Journal of Neuroradiology 2007;28:965-70.

B175. Normal-appearing grey and white matter T1 abnormality in early relapsing-remitting multiple sclerosis: a longitudinal study.

Davies GR, Hadjiprocopis A, Altmann DR, Chard DT, Griffin CM, Rashid W, Parker GJ, **Tofts PS**, Kapoor R, Thompson AJ, Miller DH. Multiple Sclerosis 2007;13:169-77.

B176. Quantification of subtle blood-brain barrier disruption in non-enhancing lesions in multiple sclerosis: a study of disease and lesion subtypes.

Soon D, Tozer DJ, Altmann DR, **Tofts PS**, Miller DH. Multiple Sclerosis 2007;13:884-94.

B177. Quantitative magnetization transfer imaging in Alzheimer disease.

Ridha BH, Tozer DJ, Symms MR, Stockton KC, Lewis EB, Siddique MM, MacManus DG, Rossor MN, Fox NC, **Tofts PS**. Radiology 2007;244:832-7.

B178. Quantitative magnetization transfer imaging in postmortem multiple sclerosis brain.

Schmierer K, Tozer DJ, Scaravilli F, Altmann DR, Barker GJ, **Tofts PS**, Miller DH. Journal of Magnetic Resonance Imaging 2007;26:41-51.

B179. Quantitative analysis of whole-tumor Gd enhancement histograms predicts malignant transformation in low-grade gliomas.

Tofts PS, Benton CE, Weil RS, Tozer DJ, Altmann DR, Jager HR, Waldman AD, Rees JH. Journal of Magnetic Resonance Imaging 2007;25:208-214. Download [pdf](#)

2008

B180. Imaging cadavers: cold FLAIR and noninvasive brain thermometry using CSF diffusion.

Tofts PS, Jackson JS, Tozer DJ, Cercignani M, Keir G, MacManus DG, Ridgway GR, Ridha BH, Schmierer K, Siddique D, Thornton JS, Wroe SJ, Fox NC. Magnetic Resonance in Medicine 2008; 59:190-5. Download [pdf](#)

B181. Low-grade gliomas: do changes in rCBV measurements at longitudinal perfusion-weighted MR imaging predict malignant transformation?

Danchavijitr N, Waldman AD, Tozer DJ, Benton CE, Brasil Caseiras G, **Tofts PS**, Rees JH, Jäger HR. Radiology 2008;247:170-8

B182. Quantitative magnetic resonance of postmortem multiple sclerosis brain before and after

fixation.

Schmierer K, Wheeler-Kingshott CA, Tozer DJ, Boulby PA, Parkes HG, Yousry TA, Scaravilli F, Barker GJ, **Tofts PS**, Miller DH. *Magnetic Resonance in Medicine* 2008; 59:268-77

2009

B183. Characterization of white matter damage in animal models of multiple sclerosis by magnetization transfer ratio and quantitative mapping of the apparent bound proton fraction f. Rausch M, **Tofts P**, Lervik P, Walmsley A, Mir A, Schubart A, Seabrook T. *Multiple Sclerosis* 2009;15:16-27

B184. Low-grade gliomas: six-month tumor growth predicts patient outcome better than admission tumor volume, relative cerebral blood volume, and apparent diffusion coefficient. Brasil Caseiras G, Ciccarelli O, Altmann DR, Benton CE, Tozer DJ, **Tofts PS**, Yousry TA, Rees J, Waldman AD, Jäger HR. *Radiology* 2009;253:505-12 [pdf](#)

B185. Quantitative imaging biomarkers in neuro-oncology. Waldman AD, Jackson A, Price SJ, Clark CA, Booth TC, Auer DP, **Tofts PS**, Collins DJ, Leach MO, Rees JH; National Cancer Research Institute Brain Tumour Imaging Subgroup. *Nature Reviews of Clinical Oncology* 2009; 6:445-54

B186. Volumes and growth rates of untreated adult low-grade gliomas indicate risk of early malignant transformation.

Rees J, Watt H, Jäger HR, Benton C, Tozer D, **Tofts P**, Waldman A. *European Journal of Radiology* 2009;72:54-64.

2010

B187. Toward clinical application of manganese-enhanced MRI of retinal function. [pdf](#) **Tofts PS**, Porchia A, Jin Y, Roberts R, Berkowitz BA. *Brain Research Bulletin* 2010;81:333-8.

B188. Simulation-based comparison of two approaches frequently used for dynamic contrast-enhanced MRI.

Zwick S, Brix G, **Tofts PS**, Strecker R, Kopp-Schneider A, Laue H, Semmler W, Kiessling F. *European Radiology* 2010;20:432-42

B189. The importance of AIF ROI selection in DCE-MRI renography: Reproducibility and variability of renal perfusion and filtration.

Cutajar M, Mendichovszky IA, **Tofts PS**, Gordon I. *European Journal of Radiology* 2010;74:e154-60

2011

B190. Multicentre imaging measurements for oncology and in the brain.

Tofts PS, Collins DJ. *Br J Radiol* 2011;84 Spec No 2:S213-26 [pdf](#)

B191. Doubts concerning the recently reported human neutrophil lifespan of 5.4 days.

Tofts PS, Chevassut T, Cutajar M, Dowell NG, Peters AM. *Blood* 2011;117:6050-2 [pdf](#)

B192. Dynamic contrast-enhanced imaging techniques: CT and MRI.
O'Connor JP, **Tofts PS**, Miles KA, Parkes LM, Thompson G, Jackson A. Br J Radiol 2011;84
Spec No 2:S112-20 [pdf](#)

B193. Quantitative magnetisation transfer imaging in glioma: preliminary results.
Tozer DJ, Rees JH, Benton CE, Waldman AD, Jäger HR, **Tofts PS**. NMR Biomed 2011;24:492-
8 [pdf](#)

2012

B194. Precise measurement of renal filtration and vascular parameters using a two-compartment model for dynamic contrast-enhanced MRI of the kidney gives realistic normal values.
Tofts PS, Cutajar M, Mendichovszky IA, Peters AM, Gordon I. Eur Radiol 2012;22:1320-30
[pdf](#)

B195. Comprehensive brain analysis with automated high-resolution magnetization transfer measurements.
Wu Y, Du H, Storey P, Glielmi C, Malone F, Sidharthan S, Ragin A, **Tofts PS**, Edelman RR. J Magn Reson Imaging 2012;35:309-17

B196. Imaging vascular function for early stage clinical trials using dynamic contrast-enhanced magnetic resonance imaging.
Leach MO, Morgan B, **Tofts PS**, Buckley DL, Huang W, Horsfield MA, Chenevert TL, Collins DJ, Jackson A, Lomas D, Whitcher B, Clarke L, Plummer R, Judson I, Jones R, Alonzi R, Brunner T, Koh DM, Murphy P, Waterton JC, Parker G, Graves MJ, Scheenen TW, Redpath TW, Orton M, Karczmar G, Huisman H, Barentsz J, Padhani A. Eur Radiol 2012;22:1451-64 [pdf](#)

2013

B197. APOE e4 polymorphism in young adults is associated with improved attention and indexed by distinct neural signatures.
Rusted JM, Evans SL, King SL, Dowell N, Tabet N, **Tofts PS**. Neuroimage 2013;65:364-73 [pdf](#)

B198. APOE E4 Carriers show prospective memory enhancement under nicotine, and evidence for specialisation within medial BA10.
Evans S, Gray MA, Dowell NG, Tabet N, **Tofts PS**, King SL, Rusted JM. Neuropsychopharmacology 2013;38:655-63

B199. Measuring the effect of pars plana vitrectomy on vitreous oxygenation using magnetic resonance imaging.
Simpson AR, Dowell NG, Jackson TL, **Tofts PS**, Hughes EH. Invest Ophthalmol Vis Sci 2013;54:2028-34 [pdf](#)

B200. MRI of carriers of the apolipoprotein E e4 allele-evidence for structural differences in normal-appearing brain tissue in e4+ relative to e4- young adults.

Dowell NG, Ruest T, Evans SL, King SL, Tabet N, **Tofts PS**, Rusted JM. *NMR Biomed* 2013;26:674-82

B201. Nicotine effects on attentional reorienting in mid-age adults, and interactions with apolipoprotein E status.

Evans S, Dowell NG, Tabet N, **Tofts PS**, King SL, Gray M, Rusted JM. *J Psychopharmacol* 2013;27:1007-14.

2014

B202. Cognitive and neural signatures of the APOE E4 allele in mid-aged adults.

Evans S, Dowell NG, Tabet N, **Tofts PS**, King SL, Rusted JM. *Neurobiol Aging* 2014;35:1615-23