

Dr. Joseph Cousins

PUBLICATIONS AND ABSTRACTS:

Peer-Reviewed Scientific Papers:

1. "Motion of the cerebellar tonsils in the foramen magnum during the cardiac cycle." AJNR Am J Neuroradiol. 2009 Sep;30(8):1587-8. Epub 2009 Mar 11. Cousins J, Haughton V.
2. "Improved time-of-flight magnetic resonance angiograph with IDEAL water-fat separation". J. Magn Reson Imaging. 2009 Jun;29(6):1367-74. Grayev A, Shimakawa A, Cousins J, Turski P, Brittain J, Reeder S.
3. "Magnetic Resonance Imaging of the Spine", American Journal of Orthopedic Surgery. 2009 Jan;17(1):22-30. Cousins, JP, Haughton VM.
4. "MDP Bone Scan: A Key Step in Assessment and Staging of a Rare Presentation of Ewing Sarcoma in a Young Adult Man." The Internet Journal of Nuclear Medicine. 2006. Volume 3 Number 1. Cousins JP, Blend MJ.
5. "Metastatic Ewing sarcoma masquerading as olfactory neuroblastoma." Eur Arch Otorhinolaryngol. 2006 Jun 27; [Epub ahead of print] Gaba RC, Cousins JP, Basil IS, Shadid H, Valyi-Nagy T, Mafee MF.
6. "Principles of Functional Magnetic Resonance Imaging: Applications to Auditory Neuroscience" Cacace A.T., Tasciyan T., Cousins J.P. J. Am. Acad. Audiol. 2000; 11:239-272.
7. "Cutaneous-Evoked Tinnitus: I. Phenomenology, Psychophysics and Functional Imaging" Cacace A.T., Cousins J.P., Parnes S.M., Semenoff D., Holmes T., McFarland D.J., Davenport C., Stegbauer K., Lovely T.J. Audiol Neurotol 1999; 4:247-257.
8. "Cutaneous-Evoked Tinnitus: II. Review of Neuroanatomical, Physiological and Functional Imaging Studies" Cacace A.T., Cousins J.P., Parnes S.M., Semenoff D., Holmes T., McFarland D.J., Davenport C., Stegbauer K., Lovely T.J. Audiol Neurotol 1999; 4:258-268.
9. "Longitudinal analysis of olfactory deficits in HIV infection" Westervelt H.J., McCaffrey R.J., Cousins J.P., Wagle W.A., Haase R.F. Archives of Clinical Neuropsychology. 1997; 12(6):557-565.

10. "Neurobiochemical Changes from Taxol/Neupogen Chemotherapy for Metastatic Breast Carcinoma Corresponds with Suicidal Depression." Cousins J.P., Harper G. *Cancer Letters*, 1996; 110:163-167.
11. "Articular Cartilage Volume Determination from Three-Dimensional Reformations of MR Images: Accuracy of Semiautomated Approach." Piplani M.A., Disler D.G., McCauley T.M., Holmes T., Cousins, J.P. *Radiology* 1996; 198(3):885-861.
12. "Clinical MR Spectroscopy: Fundamentals, Current Applications, and Future Potential." Cousins J.P. *AJR* 1995; 164:1337-1347.
13. "Practice Effects with the NIMH AIDS Abbreviated Neuropsychology Battery." McCaffrey R.J., Cousins J.P., James-Westervelt H., Martynowicz M., Remick S.C., Szebenyi S., Wagle W.A., Bottomley P.A., Hardy C.J., Haase ., R.F. *Archives of Clinical Neuropsychology* 1995; 10:241-250.
14. "Fat Suppressed Spoiled-GRASS Imaging of Knee Hyaline Cartilage: Technique Optimization with Comparison to Conventional MR Imaging." Disler D., Peters T., Muscoreil S., Ratner L., Wagle W.A., Cousins J.P., Rifkin M. *AJR* 1994; 163:887-892.
15. "Alzheimer Dementia: Quantification of Energy Metabolism and Mobile Phosphoesters with P-13 NMR Spectroscopy." Bottomley P.A., Cousins J.P., Pendrey D.L., Wagle W.A., Hardy C.J., Eames F.A., McCaffrey R.J., Thompson D.A. *Radiology* 1992; 183:695-699.
16. "Cerebral Infarction in Progeria." Wagle, W.A., Haller, J.S., Cousins, J.P. *Pediatric Neurology* 1992; 8:476-477.
17. "AIDS Dementia Complex: Brain High-Energy Phosphate Metabolite Deficits." Bottomley, P.A., Hardy, C.J., Cousins, J.P., Armstrong, M.A., Wagle, W.A. *Radiology* 1990; 176:407-411.
18. "The Relationship between Cardiac Function and Metabolism in Acute Adriamycin-treated Perfused Rat Hearts Studied by P-31 and C-13 NMR Spectroscopy." Chatham, J.C., Cousins, J.P., Glickson, J.D. *J. Mol Cell Cardiol.*, 1990; 22:1187-1197.
19. "Multiple Alkylation and Mapping of the Active-site of alpha-Chymotrypsin by Carbonium-ions Generated with Active-site-directed Nitrosoamide Substrates."

White, E.H., Li, M., Cousins, J.P., Roswell, D.F. J. American Chemical Society, 1990; 112(5):1956-1961.

20. "A Protocol for the Isolation of Carotid and Vertebral Arteries in Magnetic Resonance Imaging." Cousins, J.P., Dumoulin, C.L., Souza, S.P., Wagle, W.A. American Journal of Neuroradiology, 1989 10:921-922.

21. "Glycolitic Activity in the Human Cornea Monitored with NMR Spectroscopy." Gottsch, J.D.; Chen, C-H; Aguayo, J.B.; Cousins, J.P.; Strahlman, E.R.; Stark, W.J. Archiv. Optamol. 1986; 104:886-889.

22. "Human Urine Endo-beta-N-Acetylglucosaminidase Capable of Cleaving High Mannose Type N-Lactosamine Type Sugar Chains." Li, Y.T., DeGaspaeri, R., Townsend, R.R., Cousins, J.P., Lee, Y.C., Li, S.C. Glycoconjugates: Proceedings of the VIIIth International Symposium 1985; 1:71-72.

23. "The Priestly Medal Address." Cousins, J.P. Chemical and Engineering News, June 10, 1991; 69(23):2-3.

BOOKS & CHAPTERS:

1. "In vivo-localization of phantom auditory perceptions during functional magnetic resonance imaging of the human brain." Cacace, A.T., Cousins, J.P., Moonen, C.W.T., van Gelderen, P., Miller, D., Parnes, S.M., Lovely, T.J. in Proceedings of the 5th International Tinnitus Seminar, (G.E. Reich and J. Vernon, (Eds.) 1995.

2. "Brain High-Energy Phosphate Metabolism in Dementias." Bottomley, P.A., Hardy, C.J., Smith, L.S., Drayer, B.D., Cousins, J.P. Bull. Clin. Neurosciences, 1991.

3. "Nuclear Magnetic Resonance Studies of Diazotate Mediated Carbonium Ion Reactions with Model Peptides and alpha-Chymotrypsin" Cousins, J.P., Ph.D. Thesis, The Johns Hopkins University, 1988 (University Microfilms, Ann Arbor, Mich.). Published in JACS 1990; 112(5):1956-1961.

4. "Metabolic Analysis of the Human Cornea by NMR Spectroscopy" Gottsch, J.D.; Chen, C-H; Cousins, J.P.; Stark, W.J. in Corneal Surgery: Theory, Technique, and Tissue ed. F.S. Brightbill, M.D., Mosby/Times Mirror, 1986.

Published Abstracts and Associated Scientific Presentations:

Most recent:

1. Thinking outside the Big Box: Voxel Selection for Clinical SV/MRS International Society of Magnetic Resonance in Medicine, MR Spectroscopy Workshop, Oct 9-12, 2018 Utrecht Netherlands.
2. “Added Value of Selective use of Weight-Bearing Myelography in Lumbar Spine Exams”, American Society of Spine Radiology Annual Symposium, February 25, 2017.
3. “Improved Small Voxel MR Spectroscopy at 3T or Why add Noise to the Spectrum Eastern Neuroradiological Society, 28th Annual Meeting, Quebec City, Quebec Canada, 8/11/2016
4. “Improved Small Voxel MR Spectroscopy at 3T or Why add Noise to the Spectrum“ JP Cousins American Society of Functional Neuroradiology 10th Annual Meeting, 3/1/2016. p 285.
5. Lecture: “MR Imaging in Multiple Sclerosis” MS-Xchange McGill University Montreal Canada 11/15/2013.
6. “CNS Complications of Lemierre’s Syndrome” Joseph P Cousins and Eric Hoover. American Society of Head and Neck Radiology 45th Annual Meeting 10/2012.
7. “Evaluating Tonsil, Spinal Cord, and CSF motion in Symptomatic and Assymptomatic Patients with Chiari I malformations. J.P. Cousins and V. Haughton. American Society of Spine Radiology, 2007 Annual Symposium, Syllabus Vol. I, p. 261. (This paper was submitted for the ASSR 2007 Mentor Award, and was chosen as the best presentation, and was chosen by the ASSR to be presented at the American Society of Neuroradiology Meeting. ASNR 2007 Proceedings, paper 417 p. 218.
8. “Tonsil and Spinal Cord motion in Chiari I Pateints.” J.P Cousins, M. Quigley, V. Haughton. American Society of Neuroradiology 2007 Proceedings, paper 136, p. 76.
9. “Improved background Suppression for Neurovascular Imaging with 3D TOF Using Robust Fat Suppression with IDEAL at 3T.” J.P. Cousins, A. Shimakawa, J.H. Brittain, J.H. Rowley, H. Yu, S.B. Reeder. American Society of Neuroradiology 2007 Proceedings, Poster #44, p. 253.

10. "Improved background Suppression for Neurovascular Imaging with 3D TOF Using Robust Fat Suppression with IDEAL at 3T." J.P. Cousins, A. Shimakawa, J.H. Brittain, J.H. Rowley, H. Yu, S.B. Reeder. International Society of Magnetic Resonance in Medicine – European Society of Magnetic Resonance in Medicine and Biochemistry, Joint Scientific Meeting 2007 Electronic Poster #3694.
11. "Correlations of CNS Tumors with Single Voxel H1-MRS and Clinical Pathology." J.P. Cousins, P.A. Seymour, S. Weaver, J. Emrich, J. Dollar, V. King and W.A. Wagle. Proceedings of the International Society for Magnetic Resonance in Medicine, 1997, Vol. III, p.1126.
12. "Clinical Evaluation of HIV CNS Lesions: Differential of CNS Lymphoma vs. Toxoplasmosis and other HIV CNS Complications." J.P. Cousins, S. Antel, J. Grigoropoulos, C. Davenport, F. Eames and W.A. Wagle. Proceedings of the International Society for Magnetic Resonance in Medicine, 1997, Vol. III, p.1134.
13. "Clinical Differentials of CNS Tumors and Radiation Necrosis Using Single Voxel H1-MRS Correlated with Pathology." J.P. Cousins, P.A. Seymour, S. Weaver, J. Emrich, J. Dollar, V. King and W.A. Wagle. Proceedings of the International Society for Magnetic Resonance in Medicine, 1997, Vol. III, p.1141.
14. "Clinical Differentiation of Primary Intracranial Neoplasms Using Single Voxel H1-MRS (SV/MRS) Correlated with Pathology." J.P. Cousins, P.A. Seymour, J. Dollar, J. Emrich, S. Weaver, W.A. Wagle, et al. Proceedings of the Association of University Radiologists, 45th Annual Meeting, 1997, 3-14, p.56.
15. "Clinical Evaluation of Recurrent Primary Intracranial Neoplasms and/or Treatment Necrosis Using Single Voxel H1-MRS (SV/MRS) with Pathology Correlation." P. Seymour, J.P. Cousins, J. Dollar, J. Emrich, S. Weaver and W.A. Wagle. Proceedings of the Association of University Radiologists, 45th Annual Meeting, 1997, 7-49, p. 64.
16. "Single Voxel H1-MRS (SV/MRS) Detection of Primary Intracranial neoplasms in Lesions Previously diagnosed as Cerebral Infarction by CT.MRI." J.P. Cousins, P.A. Seymour, J. Dollar, J. Emrich, S. Weaver, W.A. Wagle, et al. Proceedings of the Association of University Radiologists, 45th Annual Meeting, 1997, P-40, p. 81.
17. "A Comparison of Functional SPECT and MR Spectroscopy (MRS) in Primary Gliomas." Weaver, S.A., Emrich, J.F., King, V.J., Cooper, J.A., Cousins, J.P., Dollar, J.D. Neurology, 1997, Vol. 48, p. A29.

18. "Practice Effects with the Brief NIMH Neuropsychological Battery for HIV Infection and AIDS across Five Assessments." Westervelt H.J., McCaffrey R.J., Haase R.F. Cousins J.P Archives of Clinical Neuropsychology. 1997; 12(4):427.
19. "Progression of Olfactory Deficits in HIV Infection." Westervelt H.J., McCaffrey R.J., Cousins J.P, Martynowicz M., Tomalski W. Archives of Clinical Neuropsychology. 1996; 11(5):462.
20. "Classification and Correlation of HIV Infection Stage with H-1 MR Spectroscopic Data and Neural Networks." Cousins, J.P., Antel, S.B., White, L.D., Kenney, E.A. Radiology, 1996; 201(P) Suppl: 427.
21. "Clinical Evaluation of CNS Tumors and Radiation Necrosis Using Single Voxel H-1 MRS and Linear Discriminant analysis." Cousins, J.P., Antel, S., Seymour, P.A., Weaver, S., Emrich, J., Dollar, J., King, V., Herman, M., Wagle, W.A. MR of CANCER Physiology and Metabolism. International Society for Magnetic Resonance in medicine, Johns Hopkins University, Baltimore, MD, 1996, p.48.
22. Clinical Evaluation of HIV CNS lesions: Differential of CNS Lymphoma vs. Toxoplasmosis and other HIV CNS Complications." Cousins, J.P., Antel, S., Davenport, C., Eames, F., Wagle, W.A. MR of CANCER Physiology and Metabolism. International Society for magnetic Resonance in Medicine, Johns Hopkins University, Baltimore, MD, 1996, p.70.
23. "Single Voxel PROBE Spectroscopy for Clinical Evaluation of HIV CNS Lesions." Cousins, J.P., Davenport, C., Eames, F., Wagle, W.A. Proceedings of the American Society of Neuroradiology (ASNR), 1996, p.27.
24. "Neurobiochemical Changes from Taxol/Neupogen Chemotherapy for Metastatic Breast Carcinoma Correspond with Suicidal Depression." J.P. Cousins, G. Harper. Proceedings of the International Society of Magnetic Resonance in Medicine, 1996, Vol. II, p. 1005.
25. "Quantitative Analysis of Cortical Atrophy via an Automated Approach: Towards New Categories for Clinical Assessment." J.P. Cousins, L.B. Kolodny, W.A. Wagle. Proceedings of the International Society of Magnetic Resonance in Medicine, 1996, Vol. III, p.1624.
26. "Atypical subjective tinnitus following neurosurgery." A.T. Cacace, S.M. Parnes, J.P. Cousins, D.J. McFarland. American Academy of Audiology, Salt Lake City, UT April 1996.

27. "Cutaneous and gaze-evoked tinnitus." A.T. Cacace, S.M. Parnes, J.P. Cousins, D.J. McFarland, T.J. Lovely. Association for Research in Otolaryngology, 1996 Vol. 19, p. 13.
28. "Advances in the development of an objective tinnitus measuring tool: Use of functional magnetic resonance imaging" A.T. Cacace, J.P. Cousins, C.T.W. Moonen, P. Van Gelderen, S.M. Parnes, T.J. Lovely. Association for Research in Otolaryngology, 1996; Vol. 19, p. 208..
29. "Temporal HIV-related Neurobiochemical Changes." J.P. Cousins, W. Tomalski, W.A. Wagle, H.J. Westervelt, S. Remick, R.J. McCaffrey, et al. Radiology 1995; 197(P) Supplement: 323.
30. "Semiautomated Computerized Determination of Hyaline Cartilage Volume with 3D MR Imaging Reformations." M.A. Piplani, D.G. Disler, T.R. McCauley J.M. Davies, J.P. Cousins, T.J. Holmes. Radiology 1995; 197(P) Supplement: 226.
31. "Quantitative Method for Evaluation of Clinical Atrophy." L.B. Kolodney, J.P.; Cousins, M.A. Piplani, D.G. Disler, W.A. Wagle. Radiology 1995; 197(P) Supplement: 374.
32. "Temporal Changes in Phosphocreatine in Symptomatic HIV Patients Observed by P-31 NMR Spectroscopy." J.P. Cousins, W. Tomalski, H. Westervelt, P.A. Bottomley, C.J. Hardy, S. Remick, R. Haase, A. LaBarge, R.J. McCaffrey, W.A. Wagle. Proceedings of the Society of Magnetic Resonance and European Society for Magnetic Resonance in Medicine and Biology. 1995, Vol I, P.53.
33. "Automated Cerebrospinal Fluid and Brain Volume Determined for Quantitative Neuroradiological Assessment of Atrophy." J.P. Cousins, S.K. Bento, T.J. Holmes, Radiology 1994; 193(P) Supplement: 362.
34. "Fractal Dimension Analyses of Neuroradiologic MR Images to Enhance Cerebral Involvement in HIV Infection." J.P. Cousins, C.A. Gillespie, T.J. Holmes, Radiology 1994; 193(P) Supplement: 362.
35. "NAA/Cho and NAA/Cr as Markers of Metabolic Changes in HIV+ Patients" J.P. Cousins, W. Tomalski, T. Peters, W.A. Wagle. Proceedings of the Society of Magnetic Resonance, 2nd Meeting, 1994, Vol II p. 581.
36. "An Automated Approach to CSF and Brain Volumes from MRI Data." J.P. Cousins, S. Bento, T. Holmes. Proceedings of the Society of Magnetic Resonance, 2nd Meeting, 1994, Vol II p. 868.

37. "Quantitative Metabolic Changes in HIV+ Volunteers by NMR Spectroscopy." J.P. Cousins, P.A. Bottomley, C.J. Hardy, W.A. Wagle. The American Chemical Society, XXIV N.E.R.M., Burlington, VT 1994, #32.
38. "Quantitative Metabolic Changes in AIDS Dementia by NMR." J.P. Cousins, P.A. Bottomley, C.J. Hardy, M.A. Martynowicz, R.J. McCaffrey, S. Remick, S. Szebenyi, W.A. Wagle NIMH Neuroscience Findings in AIDS Research, 1994, p. 18.
39. "Self-Similarity of Normal Human Neuroanatomy Determined by MRI and Fractal Dimension Analysis." J.P. Cousins, M.J. Marcinczyk, E.P. Weinberg, The Society of Magnetic Resonance in Medicine XI Annual Scientific Meeting, Berlin Germany, 1992, Vol II p. 4217.
40. "High Energy Phosphate Concentrations in Parkinson's Disease: Comparison with Alzheimer's and AIDS dementia." J.P. Cousins, P.A. Bottomley, D.L. Pendry, C.J. Hardy, S. Factor, R.J. McCaffrey, W.A. Wagle, Society of Magnetic Resonance in Medicine XI Annual Scientific Meeting, Berlin Germany, 1992, Vol I, p. 754.
41. "Renal Artery Visualization with MR Angiographic Techniques: A Comparative Study." J.P. Cousins, R.S. Patel, K. Zirinski, M. Collins, Radiological Society of North America, 78th Annual Scientific Program, Chicago, Illinois; Radiology 1992; 185(P) Supplement: 203.
42. "High Velocity Flow Detected with Phase-Contrast MR Angiography." J.P. Cousins, W.A. Wagle, Zirinski, K., Dumoulin, C. Radiological Society of North America, 78th Annual Scientific Program, Chicago, Illinois; Radiology 1992; 185(P) Supplement: 203.
43. "Fractal Analysis of Normal Brain Anatomy." Marcinczyk, M.J.; Weinberg, E.; Cousins, J.P. The Association of University Radiologists, 40th Annual Meeting, Chicago Vol I., 1992.
44. "Comparison of MR Angiographic Techniques for Evaluation of Renal Arteries." Cousins, J.P.; Patel, R.S.; Zirinski, K. The Association of University Radiologists, 40th Annual Meeting, Chicago, IL, Vol I., 1992.
45. "Brain Phosphate Metabolite Levels in Alzheimer's Dementia: A multi-institutional study." Bottomley, PA; Cousins, JP; Alger, J; Eames, FA; Wagle, WA; Lefkowitz, DP; McCaffrey, RJ; Thompson, DA; Hardy, CJ; Murphy, D; Rosenberg, J; Shapiro, M; Rappoport, SI; Horwitz, B. Society of Magnetic Resonance in Medicine, 1991, X Meeting, San Francisco, Vol I, p 295.

46. "The Mattis Dementia Rating Scale: Preliminary Data on Parkinson's and HIV+ Patients." Lefkowitz, DP; McCaffrey, RJ; Remick, SC; Cousins, JP; Thompson, DA. National Academy of Neuropsychology, 1991.
47. "Non-Ischemic Disruption of Cardiac High Energy Phosphate Metabolism by Sepsis." Goldfarb, RD; Andrejuk, T; Dziuban, SW; Cousins, JP. FASEB Journal 1991; 5(6) part 3, A1725. .
48. "Quantitative Neurobiochemical Changes in Dementias by NMR Spectroscopy." Cousins, JP; Bottomley, PA; Hardy, CJ; Thompson, DA; Wagle, WA. American Chemical Society, 21st Northeast Regional Meeting University of Massachusetts, Amherst, MA, 1991, #38.
49. "NMR Spectroscopy of Biological Systems: From Molecules to Medicine." Cousins, JP; American Chemical Society, 21st Northeast Regional Meeting, Amherst, MA, 1991, #56.
50. "Non-Ischemic Myocardial Injury Observed In Vivo in Chronically Instrumented Pigs Under Continuous Endotoxin Challenge." Cousins, J.P.; Hammer, B.; Lee, K.J.; Andrejuk, T.; Ptak, T.; Goldfarb, R.D. Society of Magnetic Resonance in Medicine, 1990, IX Meeting, New York Vol I, p 254.
51. "Cardiac High Energy Phosphate Metabolism during Continuous Endotoxemia: A P-31 NMR Study." Cousins, J.P.; Hammer, B.; Lee, K.J.; Andrejuk, T.; Ptak, T.; Goldfarb, R.D. The American Chemical Society, N.E.R.M. XX, Clarkson University, 1990.
52. "Application-Driven Spatial Localization Protocols for Clinical Spectroscopy in the Heart and Brain." Bottomley, P.A.; Hardy, C.J.; Weiss, R.G.; Gerstenblith, G.; Cousins, J.P.; Magn. Reson. Imag., 1990, 8(S1): 172.
53. "Magnetic Resonance Angiography of Carotid and Vertebral Artery Dissection." Wagle, W.A.; Cousins, J.P.; Dumoulin, C.L.; Souza, S.P. The American Society of Neuroradiology (ASNR), 1990.
54. 3-D D FT Time-of -Flight and Phase Shift MR Angiography of the Cervical and Cerebral Vasculature. Wagle, W.A, Dumoulin, C.L., Souza, S.P., Walker, M.F., Cousins, J.P. American J. of Neuroradiology 1989; 10(4) 895.
55. "Brain Phosphate Metabolite Concentrations, not Ratios, are Reduced in AIDS Dementia." Bottomley, P.A.; Hardy, C.J.; Cousins, J.P.; Armstrong, M.; Wagle, W.

The Society for Magnetic Resonance in Medicine, 1989, VIII Meeting, Amsterdam, Netherlands, p. 396.

56. "Magnetic Resonance Angiography of the Cervical and Intracranial Vasculature." Wagle, W.A.; Cousins, J.P.; Dumoulin, C.L.; Souza, S.P. The Society for Magnetic Resonance in Medicine, 1989, VIII Meeting, Amsterdam, Netherlands, p.157.

57. "The Acute Effects of Adriamycin on Metabolism and Function of the Perfused Rat Heart: A P-31 and C-13 NMR Study." Chatham, J.C.; Cousins, J.P.; Glickson, J.D. Society for Magnetic Resonance in Medicine, 7th Annual Meeting, August 1988, Vol 1, p 293.

58. "Alanine Metabolism in the Rabbit Cornea Assessed by C-13 NMR Spectroscopy." Bonham, R.D.; Gottsch, J.D.; Cousins, J.P.; Chen, C-H; Stark, W.J. Investigat. Ophthalmol. Suppl., #27, 68, 1986.

59. "Decreasing Glycolytic Activity in Rabbit Corneas with Increased Death-to-Enucleation Times." Gottsch, J.D.; Chen, C-H; Aguayo, J.B.; Cousins, J.P.; Strahlman, E.R.; Stark, W.J. Investigat. Ophthalmol. Suppl. #27, 68, 1986.

60. "Nuclear Magnetic Resonance Spectroscopy of Glucose Metabolism in the Human Lens." Cousins, J.P.; Aguayo, J.B.; Gottsch, J.D.; Camili, U.; Hay, A.; Stark, W.J. Investigat. Ophthalmol. Suppl., #26, 314, 1985. Presented at the annual meeting of the Association for Research in Vision and Ophthalmology, 1985.

61. "Metabolic Evaluation of the Human Corneal Function by C-13 NMR." Strahlman, E.R.; Aguayo, J.B.; Stark, W.J.; Gottsch, J.D.; Cousins, J.P. Investigat. Ophthalmol. Suppl. #26, 181, 1985.

62. "High Resolution NMR Spectroscopy of the Epithelium, Stroma, and Endothelium of the Human Cornea." Gottsch, J.D.; Cousins, J.P.; Chen C-H; Hamill, M.B.; Aguayo, J.B.; Stark, W.J. Investigat. Ophthalmol. Suppl. #26, 162, 1985.

63. "Maintenance of the Human Lenses in Tissue Culture and Study by Phosphorous-31 NMR Spectroscopy" Aguayo, J.B.; Murray, T.; Torentino, P.; Cousins, J.P.; Kan, L.S.; Stark, W.J. Investigat. Ophthalmol. Suppl. #26, 162, 1985.

64. "Proton and C-13 Studies of the Nitrosoamide Inhibition of alpha-Chymotrypsin and Related Model Reactions." Cousins, J.P.; White, E.H. presented at the American Chemical Society, 188th National Meeting, August, 1984