

Dr. Craig K Jones

Contact Information

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Work Address

F.M. Kirby Center for Functional Brain Imaging
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707 North Broadway
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Positions

F.M. Kirby Center for Functional Brain Imaging, Kennedy Krieger Institute Jul 2009–Present
Baltimore, MD

Title: Research Associate (Faculty)– Kennedy Krieger Institute
Research Associate (Faculty) -Department of Radiology, Johns Hopkins Medical Institutes

Research on advanced MRI topics: Use of magnetization transfer imaging to measure pH, lipid and protein imaging for Multiple Sclerosis and spine imaging. The Philips research support person providing programming and other support for work on the 3T and 7T Philips MRI systems.

Centre for Functional and Metabolic Imaging, Robarts Research Institute Jun 2006–Jun 2009
London, ON

Title: Research Scientist – Robarts Research Institute

Research on acquisition methods for CEST and PARACEST as well as diffusion tensor imaging. Current work is on Varian 4T and 9.4T systems.

F.M. Kirby Center for Functional Brain Imaging, Kennedy Krieger Institute Oct 2003–Jun 2006
Baltimore, MD

Title: Research Associate (Faculty)– Kennedy Krieger Institute
Research Associate (Faculty) -Department of Radiology, Johns Hopkins Medical Institutes

Research on advanced MRI topics: Use of magnetization transfer imaging to measure pH, exploratory research using diffusion tensor imaging, functional MRI, and cerebral blood flow and blood volume. The Philips research support person providing programming and other support for work on the 1.5T and 3T Philips MRI systems.

Education

Doctor of Philosophy Sep 1999–Aug 2003
Department of Physics, University of British Columbia Vancouver, BC

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Thesis Title: T2 Decay Curve Acquisition and Analysis in MRI: Noise Considerations, Short T2 , and B1 Field Encoding

Focused on faster, more accurate quantification of water properties in the brain using magnetic resonance imaging. All work was on a 1.5T Picker scanner and a 1.5T GE scanner.

Supervisor: Dr Alex MacKay, Dr San Xiang

Master of Science Sep 1994–Sep 1997
Department of Medical Biophysics, University of Western Ontario London, ON

Thesis Title: Quantitative Multi-Component Analysis Using Fast Spin-Echo MRI

Focused on the modification of a magnetic resonance imaging pulse sequence for faster measurement of water properties in the brain. Research included programming GE scanners, data acquisition, analysis and interpretation of results.

Supervisor: Dr Brian Rutt

Bachelor of Science Sep 1988–Dec 1992
Departments of Computing Science and Mathematics, Simon Fraser University Burnaby, BC

Honours Bachelor of Science degree in Mathematics and Computing Science with a First Class Standing.

Primary focus was on implementation and use of numerical algorithms.

Experience

Research Leader, MS/MRI Research Group, UBC Sep 1997–Aug 2003
Vancouver, BC

Worked on creating a semi-automated lesion detection algorithm for classifying MS lesions. Applied filtering techniques to MR images for better myelin mapping techniques. General programming for MR image analysis using C, C++, Java, Perl, and Matlab.

Research Assistant, University of Western Ontario Jan 1993–Sep 1994
London, ON

Worked as a computer programmer/technician on magnetic resonance pulse programming (General Electric MRI system), image processing, numerical analysis and software design using C and Matlab.

Computer Programmer, Simon Fraser University (Research Project) May 1992–Aug 1992
Burnaby, BC

Implemented an algorithm in C on a parallel vision machine to recognize objects based on colour

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constancy.

Programmer, Bell Northern Research (Co-op)

Jan 1991–Apr 1991
Montreal, PQ

Worked on a computer system in C++ that would enable computers to communicate with a, possibly distant, piece of hardware via different types of network connections.

Programmer, NovaCorp International Consulting (Co-op)

May 1990–Aug 1990
Calgary, AB

Worked on calculating tables of values using numerical techniques based on equations of state for gases and liquids.

Supervision

Mir Adnan Ali -- Master's Degree

Jan 2003–Sep 2003
Vancouver, BC

Non-rigid body registration algorithms in MRI. He was pursuing a Master's degree in the Department of Electrical and Computer Engineering at the University of British Columbia.

Erick Wong Computer -- Programmer / Mathematician

Sep 2000–Sep 2003
Vancouver, BC

Multiple sclerosis lesion segmentation and image registration.

John Kim Computer -- Programmer

Sep 1999–Sep 2000
Vancouver, BC

User interfaces and general coding.

Teaching Experience

University of British Columbia

Jun 2003
Vancouver, BC

Taught a three hour "Introduction to Medical Imaging" for the Science 101 course.

Simon Fraser University

Feb 1992–Apr 1992
Burnaby, BC

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Teaching assistant for a second year software engineering course.

Simon Fraser University

Feb 1992–Apr 1992
Burnaby, BC

As a substitute lecturer, taught an introductory first year computing science course for three weeks.

Awards and Achievements

- 2002-2003 University Graduate Fellowship, University of British Columbia (\$16,000)
- 2001-2002 University Graduate Fellowship, University of British Columbia (\$16,000)
- 1996 Special University Scholarship, University of Western Ontario (\$1,500)
- 1996 Multiple Sclerosis Society of Canada Studentship (\$15,295)
- 1996 Special University Scholarship, University of Western Ontario (\$1,350)
- 1995 Special University Scholarship, University of Western Ontario (\$1,500)
- 1992 Honour Roll for Fall Term
- 1992 Canadian Information Processing Society - Award (\$500)
Award for excellence in academics and extra-curricular activities.
- 1987 Royal Canadian Legion-Scholarship (\$2,000)

Grants

Co-Investigator

1. "Imaging of white matter fiber tracts in epileptic malformations of cortical development", Lawson Internal Research Fund, \$6,000. Awarded Dec 2007 PI: Jorge G Burneo.
2. "Mechanisms of neurodegeneration and strategies for neuroprotection in MS", MS Society, \$5,000,000. Awarded and commences Oct 1, 2005 for 5 years. 10% effort. PI: Peter Calabresi
3. "Functional Studies in Adrenomyeloneuropathy". December 1, 2003 – November 30, 2005. 10% effort. R21 NS045716-02 PI: Gerald Raymond

Patents

1. "NON-INVASIVE MRI MEASUREMENT OF TISSUE GLYCOGEN", U.S. provisional patent July 21, 2005 (Serial Number 60/701,390), U.S. utility patent January 18, 2008 (Serial Number 11/996,162)

Academic Activities

- Reviewer – International Society for Magnetic Resonance in Medicine, 2005, 2009
- Reviewer – Magnetic Resonance in Medicine (current)

Publications

Papers Recommended or Accepted for Publication

1. Smith, S.A., **Jones, C.K.**, Gifford, A., Belegu, V., Chodkowski, B., Farrell, J.A.D., Landman, B.A., Reich, D.S., Calabresi, P.A., McDonald, J.W., van Zijl, P.C.M., "Reproducibility of Tract-specific Magnetization Transfer and Diffusion Tensor Imaging in the Cervical Spinal Cord at 3 Tesla", *NMR in Biomedicine*. Accepted.

Published Papers

1. **Jones, C.K.**, Li, A., Suchy, M., Hudson, R., Menon, R.S., Bartha, R., "In Vivo Detection of PARACEST Agents with Relaxation Correction", Accepted *MRM*.
2. Li, A.X., Hudson, R.H.E., Barrett, J.W., **Jones, C.K.**, Pasternak, S.H., Bartha, R., "Four-Pool Modeling of Proton Exchange Processes in Biological Systems in the Presence of MRI-PARACEST Agents", *Magn Reson Med*. 2008 Nov;60(5):1197-1206.
3. Li, A.X., Wojciechowski, F., Suchy, M., **Jones, C.K.**, Hudson, R.H.E., Menon, R.S., Bartha, R., "A Sensitive PARACEST Contrast Agent for Temperature MRI: Eu³⁺-DOTAM-Gly-Phe", *Magn Reson Med*. 2008 Feb;59(2):374-381. [[link](#)]
4. Hua, J., **Jones, C.K.**, Sun, P.Z., van Zijl, P.C.M., Salhotra, A., Lal, B., Larterra, J., Zhou, J., "Quantitative Description of the Asymmetry in Magnetization Transfer Effects Around the Water Resonance in the Human Brain", *Magn Reson Med*. 2007 Sep;58(4):786-793. [[link](#)]
5. Reich, D.S., Smith, S.A., Zackowski, K., Gordon-Lipkin, E.M., **Jones, C.K.**, Farrell, J.A., Mori, S., van Zijl, P.C.M., Calabresi, P.A., "Multiparametric magnetic resonance imaging analysis of the corticospinal tract in multiple sclerosis.", *Neuroimage*. 2007 Aug 15; [Epub ahead of print]. [[link](#)]
6. Farrell, J.A.D., Landman, B.A., **Jones, C.K.**, Prince, J.L., Mori, S., "Effects of signal-to-noise ratio on the accuracy and reproducibility of diffusion tensor imaging-derived fractional anisotropy, mean diffusivity, and principal eigenvector measurements at 1.5 T.", *J Magn Reson Imaging*. 2007 Sep;26(3):756-67. [[link](#)]
7. Landman, B.A., Farrell, J.A.D., **Jones, C.K.**, Smith, S.A., Prince, J.L., Mori, S., "Effects of diffusion weighting schemes on the reproducibility of DTI-derived fractional anisotropy, mean diffusivity, and principal eigenvector measurements at 1.5T", *Neuroimage*. 2007 Jul 15;36(4):1123-38. [[link](#)]
8. van Zijl, P.C., **Jones, C.K.**, Ren, J., Malloy, C.R., Sherry, A.D., "MRI detection of glycogen in vivo by using chemical exchange saturation transfer imaging (glycoCEST)", *Proc Natl Acad Sci U S A*, Mar 13;104(11):4359-64. Epub 2007 Mar 5. [[link](#)]
9. Kirwan, C.B., **Jones, C.K.**, Miller, M., Stark, C.E.L., "High-Resolution fMRI Investigation of the Medial Temporal Lobe", *Human Brain Mapping*. 2007 Oct; 28(10):959-966. [[link](#)]
10. Reich D.S., Smith, S.A., **Jones, C.K.**, Zackowski, K.M., van Zijl, P.C., Calabresi, P.A., Mori, S., "Quantitative characterization of the corticospinal tract at 3T." *AJNR Am J Neuroradiol*. 2006 Nov-Dec;27(10):2168-78. [[link](#)]
11. Donahue, M.J., Lu, H., **Jones, C.K.**, Edden, R.A., Pekar, J.J., van Zijl, P.C., "Theoretical and experimental investigation of the VASO contrast mechanism." *Magn Reson Med*. 2006 Dec;56(6):1261-73. [[link](#)]
12. **Jones, C.K.**, Schlosser, M.J., van Zijl, C.M., Pomper, M.G., Golay, XX., Zhou, J., "Amide

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- Proton Transfer Imaging of Human Brain Tumors at 3T”, *Magn Reson Med.* 2006 Sep;56(3):585-92. [[link](#)]
13. Donahue, M.J., Lu, H., **Jones, C.K.**, Pekar, J.J., van Zijl, P.C.M., ”An Account of the Discrepancy between MRI and PET Cerebral Blood Flow Measures. A High-field MRI Investigation”. *NMR in Biomed*, Aug 31, 2006. [[link](#)]
 14. Smith, S.A., Farrell, J.A.D., **Jones, C.K.**, Reich, D.S., Calabresi, P.A., van Zijl, C.M., ”Pulsed Magnetization Transfer Imaging with Body Coil Transmission at 3 Tesla: Feasibility and Application”, *Magn Reson Med.* 2006 Oct;56(4):866-75. [[link](#)]
 15. Smith, S.A., Golay, X., Fatemi, A., **Jones, C.K.**, Raymond, G.V., Moser, H.W., van Zijl, P.C.M., ”Magnetization Transfer Weighted Imaging in the Upper Cervical Spinal Cord Using Cerebrospinal Fluid as Intersubject Normalization Reference (MTCSF Imaging)”, *Magn Reson Med* 54:201-206, 2005. [[link](#)]
 16. **Jones, C.K.**, Xiang, Q.S., Whittall, K.P., MacKay, A.L., ”Short T2 Selection From Linear Combination of Images”, *Magn Reson Med* 51(3):495-502, 2004. [[link](#)]
 17. **Jones, C.K.**, Whittall, K.P., MacKay, A.L., ”Robust Myelin Water Quantification: Averaging vs Spatial Filtering”, *Magn Reson Med* 50(1):206-209, 2003. [[link](#)]
 18. Wong, E.B., **Jones, C.K.**, ”Convex Geometry for Rapid Tissue Classification in MRI”, *Proceedings of SPIE: Image Processing* 4684:1524-1530, 2002. [[link](#)]
 19. **Jones, C.K.**, Wong, E.B., ”A Multi-Scale Application of the N3 Method for Intensity Correction of MR Images”, *Proceedings of SPIE: Image Processing* 4684:1123-1129, 2002. [[link](#)]
 20. Whittall, K.P., MacKay, A.L., Li, D.K.B., Vavasour, I.M., **Jones, C.K.**, Paty, D.W. ”Normal-Appearing White Matter in Multiple Sclerosis has Heterogeneous, Diffusely Prolonged T2 ”, *Magn Reson Med* 47(2):408-413, 2002. [[link](#)]
 21. **Jones, C.K.**, MacKay, A., Rutt, B. ”Bi-Exponential T2 Response in Dairy Cream”, *Magn Reson Imag* 16(1):83-85, 1998. [[link](#)]
 22. Mitchell, J.R., **Jones, C.**, Karlik, S.J., Lee, D.H., Rutt, B., Fenster, A., ”Magnetic Resonance Multispectral Analysis of Multiple Sclerosis Lesions”, *J Magn Reson Imag* 7 (3), 1997. [[link](#)]

Proffered Presentations

1. **Jones, C.K.**, Li, A.X., Bartha, R., Menon, R.S., ”Alternating Frequency CEST”, Bat Sheva Seminar on Frontiers of Biomedical Magnetic Resonance. Sefat, Israel, Sept 20-25, 2008.
2. Li, A.X., Suchy, M., **Jones, C.K.**, Menon, R.S., Hudson, R.H.E., Bartha, R., ”Temperature Mapping of Mouse Brain Tissue Using MRI-PARACEST Contrast Agents”, *Proceedings of the International Society of Magnetic Resonance in Medicine.* Toronto, Canada, May 3-9, 2008. pg 1437.
3. Li, A.X., **Jones, C.K.**, Suchy, M., Menon, R.S., Hudson, R.H.E., Bartha, R., ”Optimized Contrast for On-Resonance Proton Exchange Processes of MRI-PARACEST Agents in Biological Systems”, *Proceedings of the International Society of Magnetic Resonance in Medicine.* Toronto, Canada, May 3-9, 2008. pg 1440.
4. Alex X. Li, Mojmir Suchy, **Craig K. Jones**, Ravi S. Menon, Robert H.E. Hudson, Robert Bartha, ”Temperature and pH Mapping Using PARACEST Contrast Agents for Magnetic Resonance Imaging”, *Ontario Institute of Cancer Research*, Feb 24-26 (2008).
5. Ren, J., van Zijl, P.C.M., **Jones, C.K.**, Malloy, C.R., Sherry, A.D., ”MRI Detection of Glycogen and Glucose”, *Proceedings of the International Society of Magnetic Resonance in Medicine.* Berlin, Germany, May 19, 25 (2007). pg 637.

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6. **Jones, C.K.**, Schlosser, M.J., van Zijl, P.C.M., Pomper, M.G., Zhou, J., "Amide Proton Transfer Imaging of Human Brain Tumors Distinguishes Tumor from Brain Tissue at the Periphery". Proceedings of the International Society of Magnetic Resonance in Medicine. Seattle, WA, May 14-24 (2006). pg 428.
7. **Jones, C.K.**, Smith, S.A., McDonald, J.W., Farrell, J.A., Calabresi, P., Mori, S., van Zijl, P.C.M., "Myelination and Axonal Integrity of Spinal Cord Sensory and Motor Pathways Revealed by Diffusion Tensor MRI". Proceedings of the International Society of Magnetic Resonance in Medicine. Seattle, WA, May 14-24 (2006). pg 2718.
8. Donahue, M.J., Lu, H., **Jones, C.K.**, Pekar, J.J., van Zijl, P.C.M., "An Investigation of the VASO Contrast Mechanism Reveals a Novel Method for Quantifying Cerebral Blood Flow". Proceedings of the International Society of Magnetic Resonance in Medicine. Seattle, WA, May 14-24 (2006). pg 2769.
9. Smith, S.A., Reich, D.S., Gordon-Lipkin, E.M., Zackowski, K.M., **Jones, C.K.**, van Zijl, P.C.M., Calabresi, P.A., "Cervical Spinal Cord Evaluation in MS by Magnetization Transfer and Diffusion Tensor MRI at 3T", submitted to AAN.
10. Blakeley, J., van Zijl, P.C.M., Pomper, M.G., **Jones, C.K.**, Laterra, J, Zhou, J., "A novel approach for imaging brain tumors: Amide Proton Transfer (APT) Imaging", Proceedings of the American Academy of Neurology. P06.134 FL, May 7-13, (2007). Submitted
11. Zhou, J., Blakeley, J., **Jones, C.K.**, Schlosser, M.J., Laterra, J., Pomper, M.G., van Zijl, P.C.M., "Amide Proton Transfer (APT) Imaging of Human Brain Tumors. A Comparison with Conventional MT Imaging". ISMRM Cancer Study Group Workshop, (Submitted) 2007.
12. Farrell, J.A.D., Landman, B.A., **Jones, C.K.**, Smith, S.A., Prince, J.L., van Zijl, P.C.M., Mori, S., "Effects of Diffusion Weighting Scheme and SNR on DTI-Derived Fractional Anisotropy at 1.5T". Proceedings of the International Society of Magnetic Resonance in Medicine, May 14-24 (2006). pg 1075.
13. **Jones, C.K.**, Smith, S.A., McDonald, J.W., Farrell, J.A.D., Calabresi, P.A., Mori, S., van Zijl, P.C.M., "Quantitative MRI Assessment of Sensory and Motor Tracts in Cervical Spinal Cord". Imaging Myelin Workshop – International Society of Magnetic Resonance in Medicine, 2006.
Presentation for poster award.
14. Lu, H., Donahue, M.J., **Jones, C.K.**, van Zijl, P.C., "Spatial Characteristics of VASO fMRI at Ultra-high Resolution", Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 27.
15. Hua, J., **Jones, C.K.**, van Zijl, P.C., Zhou, J., "Human Brain Magnetization Transfer (MT) Asymmetry Dependence on RF Saturation Power", Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 416.
16. Smith, S.A., **Jones, C.K.**, Farrell, J.A., Reich, D.S., Calabresi, P.A., van Zijl, P.C., "Pulsed Magnetization Transfer SENSE Imaging in the Brain at 3T", Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 417.
17. **Jones, C.K.**, Wong, E.B., Riddehough, A., Li, D.K.B., Paty, D.W., "Semi-Automatic MS Lesion Segmentation Comparison to Manual Tracing". Proceedings of the International Society of Magnetic Resonance in Medicine. Honolulu, HI, May 18-24, (2002). Page 352.
18. **Jones, C.K.**, Riddehough, A., Li, D.K.B., Zhao, G.J., Paty, D.W. "MRI Cerebral Atrophy in Relapsing-Remitting MS: Results from the PRISMS Trial", *Neurol.*, 56(8):A379, 2001
19. **Jones, C.K.**, Riddehough, A.R., Li, D.K.B., Zhao, G.J., Paty, D.W., "Atrophy Measurements in Multiple Sclerosis". Proceedings of the 53rd Annual Meeting of the American Academy of Neurology. Philadelphia, PA, May 5-11, (2001). Page S47.002.

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Included in the 5th Annual Scientific Topic Highlights Plenary Session moderated by Dr. Timothy A. Pedley

20. Mitchell, J.R., **Jones, C.K.**, Karlik, S.J., Kennedy, K., Lee, D.H., Rutt, B.K., and Fenster, A., "Multispectral Analysis of Multiple Sclerosis Lesions". Proceedings of the International Society of Magnetic Resonance in Medicine. Vancouver, BC, April 14-19, (1997). Page 652.
21. **Jones, C.K.**, Mitchell, J.R. and Rutt, B.K., "Characterization of T 2 Spectra of White Matter, Gray Matter and Lesions in MS Patients". Presented at the Annual Meeting of the Canadian Organization of Medical Physicists. Toronto, ON, September 16-18, (1994).

Poster Presentations

1. Burneo, J.G., Bartha, R., **Jones, C.**, "Multimodality Imaging in Patients with Epilepsy and Malformations of Cortical Development (MCD): FMRI, MRS and DTI", Annual Epilepsy Society. Accepted
2. Culham, J. C., Roebroeck, A., Pullens, W. L. P. M., **Jones, C. K.**, Khan, S. A., Dutton, G. N., Goodale, M. A., & Goebel, R. "Anatomical and functional connectivity in a patient with preserved motion awareness and visuomotor functions despite large bilateral occipitotemporal lesions." Society for Neuroscience, Chicago, IL. Accepted.
3. Oduneye, S.O., **Jones, C.K.**, Menon, R.S., "4-Channel Transceive Surface Coil Array for Reduction of EPI-Induced Artifacts Using SENSE and GRAPPA", Proceedings of the International Society of Magnetic Resonance in Medicine. Honolulu, HI, Apr 18-24 (2009). pg 2990.
4. **Jones, C.K.**, Li, A.X., Menon, R.S., Bartha, R., "Increased CNR in On-Resonance PARACEST Imaging", Proceedings of the International Society of Magnetic Resonance in Medicine. Honolulu, HI, Apr 18-24 (2009). pg 909.
5. Curtis, A.T., Anand, C.K., **Jones, C.K.**, Klassen, L.M., Menon, R.S., "Numerical Optimization of Minimum Phase RF Pulses for UTE Imaging", Proceedings of the International Society of Magnetic Resonance in Medicine. Honolulu, HI, Apr 18-24 (2009). pg 2578.
6. Li, A.X., **Jones, C.K.**, Suchy, M., Hudson, R.H.E., Menon, R.S., Bartha, R., "Using the Linewidth of the Amide Proton CEST Effect of MRI-PARACEST Agents for pH Mapping", Proceedings of the International Society of Magnetic Resonance in Medicine. Honolulu, HI, Apr 18-24 (2009). pg 4496.
7. Li, A.X., **Jones, C.K.**, Suchy, M., Menon, R.S., Hudson, R.H.E., Bartha, R., "Optimized Contrast for On-Resonance Proton Exchange Processes of MRI-PARACEST Agents in Biological Systems", Proceedings of the International Society of Magnetic Resonance in Medicine. Toronto, Canada, May 3-9 (2008). pg 1440.
8. Li, A.X., Suchy, M., **Jones, C.K.**, Menon, R.S., Hudson, R.H.E., Bartha, R., "Temperature Mapping of Mouse Brain Tissue Using MRI-PARACEST Contrast Agents", Proceedings of the International Society of Magnetic Resonance in Medicine. Toronto, Canada, May 3-9 (2008). pg 1437.
9. Li, A.X., **Jones, C.K.**, Suchy, M., Wojciechowski, F., Hudson, R.H.E., Menon, R.S., "pH Measurement with a MRI-PARACEST Contrast Agent: Nd-DOTAM-Gly-Lys", Proceedings of the International Society of Magnetic Resonance in Medicine. Berlin, Germany, May 19-25 (2007). pg 1177.
10. **Jones, C.K.**, Barth, R., Menon, R.S., "Sub-Millimolar PARACEST Detection Using EPI-CEST", Proceedings of the International Society of Magnetic Resonance in Medicine. Berlin, Germany, May 19-25 (2007). pg 1163.

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11. Li, A.X., **Jones, C.K.**, Wojciechowski, F., Suchy, M., Hudson, R.H.E., Menon, R.S., Bartha, R., "Temperature Imaging with a MRI-PARACEST Contrast Agent: Eu-DOTAM-Gly-Phe", Proceedings of the International Society of Magnetic Resonance in Medicine. Berlin, Germany, May 19-25 (2007). pg 3402.
12. Courtney, S., Zhou, F., Sayala, S., **Jones, C.K.**, "Frontal-extrastriate Neural Pathways for Spatial and Non-spatial Working Memory: A DTI and fMRI Study in Normal and MS Subjects". Society for Neuroscience, 2006. Page 569.7.
13. Zhou, J., Blakeley, J., **Jones, C.K.**, Laterra, J., van Zijl, P.C.M., "Amide Proton Transfer (APT) Contrast and Conventional MT Contrast for Imaging Human Brain Tumors". Gordon Research Conference – In Vivo Magnetic Resonance, 2006.
14. **Jones, C.K.**, Smith, S.A., McDonald, J.W., Farrell, J.A.D., Calabresi, P.A., Mori, S., van Zijl, P.C.M., "Quantitative MRI Assessment of Sensory and Motor Tracts in Cervical Spinal Cord". Imaging Myelin Workshop – International Society of Magnetic Resonance in Medicine, 2006. *Received a poster award.*
15. **Jones, C.K.**, Smith, S.A., McDonald, J.W., Farrell, J.A., Calabresi, P.A., Mori, S., van Zijl, P.C.M., "Myelination and Axonal Integrity of Spinal Cord Sensory and Motor Pathways Revealed by Diffusion Tensor MRI". Proceedings of the International Society of Magnetic Resonance in Medicine. May 6-12 (2006). pg 2718.
16. **Jones, C.K.**, Ren, J., Malloy, C., Sherry, A.D., van Zijl, P.C.M., "MRI Detection of Glycogen (GlycoCEST)". Proceedings of the International Society of Magnetic Resonance in Medicine. May 6-12 (2006). pg 2482. *Poster Award: First Place (Data Processing).*
17. **Jones, C.K.**, Schlosser, M.J., van Zijl, P.C.M., Pomper, M.G., Zhou, J., "Amide Proton Transfer Imaging of Human Brain Tumors Distinguishes Tumor from Brain Tissue at the Periphery". Proceedings of the International Society of Magnetic Resonance in Medicine. May 6-12 (2006). pg 428.
18. Smith, S.A., Reich, D.S., **Jones, C.K.**, van Zijl, P.C.M., Calabresi, P.A., "High resolution magnetization transfer MRI at 3T demonstrates tract-specific MS pathology in the cervical spinal cord". Submitted to American Academy of Neurology for 2006 annual meeting.
19. B. Kirwan, M.A. Flanery, **C.K. Jones**, J. Pekar, C.C.E. Stark. "High-Resolution fMRI Investigation of the Medial Temporal Lobe", 35th Annual Meeting of the Society for Neuroscience, Washington DC, Nov 12-16, (2005). Program No. 315.11.
20. Donahue, M.J., **Jones, C.K.**, Lu, H., van Zijl, P.C., "A Proposed Solution for Reconciling the Cerebral Blood Flow Discrepancy Between PET and MRI". Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 1147.
21. **Jones, C.K.**, Serences, J.T., Yantis, S., Mori, S., Pekar, J.J., van Zijl, P.C., "Retinotopic Connectivity Revealed by DTI". Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 1518.
22. **Jones, C.K.**, Schlosser, M.J., van Zijl, P.C., Pomper, M.G., Golay, X., Zhou, J., "Amide Proton Transfer Imaging of Human Brain at 3T". Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 1256.
23. Mutihac, R., Schafer, J.G., **Jones, C.K.**, Gillen, J.S., Mostofsky, S.H., Boyce, A.C., Goldberg, M.C., Denckla, M.B., Courtney, S.M., Kraut, M.A., Calhoun, V.D., Adali, T., Pekar, J.J., "Listening to the Scanner: Modulation of Auditory Perception During Visuo-Motor fMRI". Proceedings of the International Society of Magnetic Resonance in Medicine. Miami Beach, FL, May 7-13, (2005). Page 2682.

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24. Reich, D.S., Wakana, S., Smith, S.A., **Jones, C.K.**, Calabresi, P.A., Mori, S., "Differences between the right and left corticospinal tracts in normal adults, revealed by quantitative MRI" American Society of Neuroradiology. Toronto, ON. May 21-27, (2005).
25. Reich, D.S., Smith, S.A., **Jones, C.K.**, Dubey, P., Zackowski, K.M., Mori, S., Calabresi, P.A., "Abnormalities in white matter fiber tracts in MS revealed by diffusion tensor imaging: effects at and distant from demyelinating lesions" Proceedings of the American Academy of Neurology. South Miami Beach, April 9-16, (2005).
26. **Jones, C.K.**, Xiang, Q.S., Whittall, K.P., MacKay, A.L., "Calculating T2 and B1 from Decay Curves Collected with non-180° Refocusing Pulses". Proceedings of the International Society of Magnetic Resonance in Medicine. Toronto, CA, July 10-16, (2003). Page 1018
27. **Jones, C.K.**, Xiang, Q.S., Whittall, K.P., MacKay, A.L., "Multi-Echo Linear Combination for Myelin Water Imaging". Proceedings of the International Society of Magnetic Resonance in Medicine. Honolulu, HI, May 18-24, (2002). Page 2289
28. Wong, E.B., Jones, C.K., "Convex Geometry for Rapid Tissue Classification in MRI", Proceedings of SPIE: Image Processing 4684:1524-1530, 2002.

Poster: Honorable Mention

29. **Jones, C.K.**, Wong, E.B., "A Multi-Scale Application of the N3 Method for Intensity Correction of MR Images", Proceedings of SPIE: Image Processing 4684:1123-1129, 2002.
30. **Jones, C.K.**, Li, D.K.B., Zhao, G.J., Paty, D.W., "Atrophy Measurements in Multiple Sclerosis". Proceedings of the International Society of Magnetic Resonance in Medicine. Glasgow, Scotland, April 1-8, (2001). Page 1414.
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32. **Jones, C.K.**, Whittall, K.P., MacKay, A.L., "Validation of Anisotropic Filtering for Myelin Water Maps". Proceedings of the International Society of Magnetic Resonance in Medicine. Glasgow, Scotland, April 21-27, (2001). Page 820.
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34. **Jones, C.K.**, Li, D.K.B., Whittall, K.P., Paty, D.W., "Automatic Registration of Volumes with Large MS Lesion Load Change". Proceedings of the International Society of Magnetic Resonance in Medicine. Denver, CO, April 1-8, (2000). Page 1750.
35. **Jones, C.K.**, Rutt, B.K., "Quantitative Accurate T2 Comparison Between Multi-Echo 3D FSE and CSE Imaging". Presented at the Annual Meeting of the Society of Magnetic Resonance. Nice, France, August 19-25, (1995). Page 1065.

Invited Talks

1. "Vascular Space Occupancy (VASO) Imaging of Blood Volume Changes Without Contrast Agent", Philips Medical Systems: Neuro Council, Eindhoven, The Netherlands, January 21, 2005.
2. "Spine MT at 3T", Philips Medical Systems: Neuro Council, Eindhoven, The Netherlands, January 20, 2005.
3. "T2 Decay Curve Acquisition and Analysis in MRI", Vanderbilt University Institute of Imaging Science, Nashville, TN, November 7, 2003.

Dr. Craig K Jones

4. "Quantitative T2 and Image Processing", F.M. Kirby Center, Kennedy Krieger Institute, Baltimore, MD, April 14, 2003.
5. "Quantitative T2 and MS", Institute of Psychiatry, Kings College London, London, England, March 20, 2003.
6. "Quantitative T2 and MS", Institute of Neurology, Queen's Square, University College of London, London, England, March 18, 2003.
7. "MS and Beyond...", Robarts Imaging, Robarts Research Institute, London, ON, August 20, 2003.

Non-Peer Reviewed Articles

1. **Jones, C.K.**, "Magnetic Resonance Imaging Safety for Firefighters", *Fire Engineering*, June 2008. pg 99 – 108.

Book Reviews

1. *How Life Begins: The Science of Life in the Womb* by C. Vaughan Random House of Canada Ltd., 1996, pp: 279, ISBN 0-8129-2103-8 Published in Canadian Institute of Physics.
2. *The Measurement of Time: Time, Frequency and the Atomic Clock* by C. Audoin and B. Guinot Cambridge University Press, 2001; pp: 335, ISBN 0-521-800080-3 Published in Canadian Institute of Physics.

Affiliations

- Member of the International Society of Magnetic Resonance in Medicine