

Dear Colleagues.

Here is the ASL Newsletter No. 13.

Happy New Year!

Cheers,  
Johanna

## Recent publications November & December 2011, (e-publications might have been earlier):

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# Animal studies

## [Imaging trait anxiety in high anxiety F344 rats: Focus on the dorsomedial prefrontal cortex.](#)

Prinssen EP, Nicolas LB, Klein S, Grundschober C, Lopez-Lopez C, Keßler MS, Bruns A, von Kienlin M, Wettstein JG, Moreau JL, Risterucci C.

Eur Neuropsychopharmacol. 2011 Dec 6. [Epub ahead of print]

## [Magnetic Resonance Imaging Indicates Decreased Choroidal and Retinal Blood Flow in the DBA/2J Mouse Model of Glaucoma.](#)

Lavery WJ, Muir ER, Kiel JW, Duong TQ.

Invest Ophthalmol Vis Sci. 2011 Dec 28. [Epub ahead of print]

## [Quantification of myocardial blood flow and flow reserve in rats using arterial spin labeling MRI: comparison with a fluorescent microsphere technique.](#)

Jacquier A, Kober F, Bun S, Giorgi R, Cozzone PJ, Bernard M.

NMR Biomed. 2011 Nov;24(9):1047-53. doi: 10.1002/nbm.1645. Epub 2011 Jan 25.

## [Robust method for 3D arterial spin labeling in mice.](#)

Chugh BP, Bishop J, Zhou YQ, Wu J, Henkelman RM, Sled JG.

Magn Reson Med. 2011 Nov 18. doi: 10.1002/mrm.23209. [Epub ahead of print]

## [Simultaneous measurement of cerebral blood flow and transit time with turbo dynamic arterial spin labeling \(Turbo-DASL\): Application to functional studies.](#)

Meng Y, Wang P, Kim SG.

Magn Reson Med. 2011 Dec 9. doi: 10.1002/mrm.23294. [Epub ahead of print]

## [Unique in utero identification of fetuses in multifetal mouse pregnancies by placental bidirectional arterial spin labeling MRI.](#)

Avni R, Raz T, Biton IE, Kalchenko V, Garbow JR, Neeman M.

Magn Reson Med. 2011 Dec 8. doi: 10.1002/mrm.23246. [Epub ahead of print]

# Pharmacological / Drug studies

## [Effects of alcohol intoxication and gender on cerebral perfusion: an arterial spin labeling study.](#)

Rickenbacher E, Greve DN, Azma S, Pfeuffer J, Marinkovic K.

Alcohol. 2011 Dec;45(8):725-37. Epub 2011 May 28.

## [Evidence for involvement of the insula in the psychotropic effects of THC in humans: a double-blind, randomized pharmacological MRI study.](#)

van Hell HH, Bossong MG, Jager G, Kristo G, van Osch MJ, Zelaya F, Kahn RS, Ramsey NF.

Int J Neuropsychopharmacol. 2011 Nov;14(10):1377-88. Epub 2011 Apr 14.

[Reversibility of the Effects of Aliskiren in the Renal Versus Systemic Circulation.](#)

Schneider MP, Janka R, Ziegler T, Raff U, Ritt M, Ott C, Veelken R, Uder M, Schmieder RE. Clin J Am Soc Nephrol. 2011 Dec 15. [Epub ahead of print]

[The response to rapid infusion of fentanyl in the human brain measured using pulsed arterial spin labelling.](#)

Zelaya FO, Zois E, Muller-Pollard C, Lythgoe DJ, Lee S, Andrews C, Smart T, Conrod P, Vennart W, Williams SC, Mehta MA, Reed LJ. MAGMA. 2011 Nov 24. [Epub ahead of print]

## Perfusion studies other than on the brain

[Magnetic Resonance Imaging Indicates Decreased Choroidal and Retinal Blood Flow in the DBA/2J Mouse Model of Glaucoma.](#)

Lavery WJ, Muir ER, Kiel JW, Duong TQ. Invest Ophthalmol Vis Sci. 2011 Dec 28. [Epub ahead of print]

[Noncontrast Functional MRI of the Kidneys.](#)

Mannelli L, Maki JH, Osman SF, Chandarana H, Lomas DJ, Shuman WP, Linnau KF, Green DE, Laffi G, Moshiri M. Curr Urol Rep. 2011 Nov 19. [Epub ahead of print]

[Quantification of myocardial blood flow and flow reserve in rats using arterial spin labeling MRI: comparison with a fluorescent microsphere technique.](#)

Jacquier A, Kober F, Bun S, Giorgi R, Cozzone PJ, Bernard M. NMR Biomed. 2011 Nov;24(9):1047-53. doi: 10.1002/nbm.1645. Epub 2011 Jan 25.

[Reversibility of the Effects of Aliskiren in the Renal Versus Systemic Circulation.](#)

Schneider MP, Janka R, Ziegler T, Raff U, Ritt M, Ott C, Veelken R, Uder M, Schmieder RE. Clin J Am Soc Nephrol. 2011 Dec 15. [Epub ahead of print]

## Cerebral blood flow studies

[Phasic deactivation of the medial temporal lobe enables working memory processing under stress.](#)

Cousijn H, Rijpkema M, Qin S, van Wingen GA, Fernández G. Neuroimage. 2012 Jan 16;59(2):1161-7. Epub 2011 Oct 1.

[Pulsed arterial spin labeling perfusion imaging at 3 T: estimating the number of subjects required in common designs of clinical trials.](#)

Murphy K, Harris AD, Diukova A, Evans CJ, Lythgoe DJ, Zelaya F, Wise RG. Magn Reson Imaging. 2011 Dec;29(10):1382-9. Epub 2011 May 5.

[Sensitivity calibration with a uniform magnetization image to improve arterial spin labeling perfusion quantification.](#)

Dai W, Robson PM, Shankaranarayanan A, Alsop DC.

Magn Reson Med. 2011 Dec;66(6):1590-600. doi: 10.1002/mrm.22954. Epub 2011 Apr 26.

## CBF correlation with age

[Arterial spin labeling MRI study of age and gender effects on brain perfusion hemodynamics.](#)

Liu Y, Zhu X, Feinberg D, Guenther M, Gregori J, Weiner MW, Schuff N.

Magn Reson Med. 2011 Dec 2. doi: 10.1002/mrm.23286. [Epub ahead of print]

[Calibrated fMRI during a cognitive Stroop task reveals reduced metabolic response with increasing age.](#)

Mohtasib RS, Lumley G, Goodwin JA, Emsley HC, Sluming V, Parkes LM.

Neuroimage. 2012 Jan 16;59(2):1143-51. Epub 2011 Aug 5.

[Correlation between gray matter density-adjusted brain perfusion and age using brain MR images of 202 healthy children.](#)

Taki Y, Hashizume H, Sassa Y, Takeuchi H, Wu K, Asano M, Asano K, Fukuda H, Kawashima R.

Hum Brain Mapp. 2011 Nov;32(11):1973-85. doi: 10.1002/hbm.21163. Epub 2011 Jan 21.

## Regional comparison

[Correlation between gray matter density-adjusted brain perfusion and age using brain MR images of 202 healthy children.](#)

Taki Y, Hashizume H, Sassa Y, Takeuchi H, Wu K, Asano M, Asano K, Fukuda H, Kawashima R.

Hum Brain Mapp. 2011 Nov;32(11):1973-85. doi: 10.1002/hbm.21163. Epub 2011 Jan 21.

## Studies on special diseases

[Adhesion molecules, altered vasoreactivity, and brain atrophy in type 2 diabetes.](#)

Novak V, Zhao P, Manor B, Sejdic E, Alsop D, Abduljalil A, Roberson PK, Munshi M, Novak P.

Diabetes Care. 2011 Nov;34(11):2438-41. Epub 2011 Sep 16.

[Age-related cerebral perfusion changes in the parietal and temporal lobes measured by pulsed arterial spin labeling.](#)

Preibisch C, Sorg C, Förschler A, Grimmer T, Sax I, Wohlschläger AM, Pernecky R, Förstl H, Kurz A, Zimmer C, Alexopoulos P.

J Magn Reson Imaging. 2011 Dec;34(6):1295-302. doi: 10.1002/jmri.22788. Epub 2011 Sep 23.

[Arterial spin-labeling MR imaging in moyamoya disease compared with SPECT imaging.](#)

Noguchi T, Kawashima M, Irie H, Ootsuka T, Nishihara M, Matsushima T, Kudo S.

Eur J Radiol. 2011 Dec;80(3):e557-62. Epub 2011 Feb 18.

[Arterial spin labeling measurement of cerebral perfusion in children with sickle cell disease.](#)

Gevers S, Nederveen AJ, Fijnvandraat K, van den Berg SM, van Ooij P, Heijtel DF, Heijboer H, Nederkoorn PJ, Engelen M, van Osch MJ, Majoie CB.  
J Magn Reson Imaging. 2011 Nov 16. doi: 10.1002/jmri.23505. [Epub ahead of print]

[Arterial spin labeling of hemangioblastoma: differentiation from metastatic brain tumors based on quantitative blood flow measurement.](#)

Yamashita K, Yoshiura T, Hiwatashi A, Togao O, Yoshimoto K, Suzuki SO, Kikuchi K, Mizoguchi M, Iwaki T, Honda H.  
Neuroradiology. 2011 Nov 10. [Epub ahead of print]

[Complex relationships between cerebral blood flow and brain atrophy in early Huntington's disease.](#)

Chen JJ, Salat DH, Rosas HD.  
Neuroimage. 2012 Jan 16;59(2):1043-51. Epub 2011 Sep 16.

[Effects of Atorvastatin on Cerebral Blood Flow in Middle-Aged Adults at Risk for Alzheimer's Disease: A Pilot Study.](#)

Carlsson CM, Xu G, Wen Z, Barnett JH, Blazel HM, Chappell RJ, Stein JH, Asthana S, Sager MA, Alsop DC, Rowley HA, Fain SB, Johnson SC.  
Curr Alzheimer Res. 2011 Nov 28. [Epub ahead of print]

[Identification of Venous Signal on Arterial Spin Labeling Improves Diagnosis of Dural Arteriovenous Fistulas and Small Arteriovenous Malformations.](#)

Le TT, Fischbein NJ, André JB, Wijman C, Rosenberg J, Zaharchuk G.  
AJNR Am J Neuroradiol. 2011 Dec 8. [Epub ahead of print]

[Longitudinal MRI study of cortical thickness, perfusion, and metabolite levels in major depressive disorder.](#)

Järnum H, Eskildsen SF, Steffensen EG, Lundbye-Christensen S, Simonsen CW, Thomsen IS, Fründ ET, Théberge J, Larsson EM.  
Acta Psychiatr Scand. 2011 Dec;124(6):435-446. doi: 10.1111/j.1600-0447.2011.01766.x.  
Epub 2011 Sep 16.

[MR perfusion imaging using the arterial spin labeling technique for breast cancer.](#)

Kawashima M, Katada Y, Shukuya T, Kojima M, Nozaki M.  
J Magn Reson Imaging. 2011 Nov 16. doi: 10.1002/jmri.22882. [Epub ahead of print]

[Neural correlates of disbalanced motor control in major depression.](#)

Walther S, Höfle O, Federspiel A, Horn H, Hügli S, Wiest R, Strik W, Müller TJ.  
J Affect Disord. 2012 Jan;136(1-2):124-33. Epub 2011 Sep 17.

[Perfusion imaging of cerebral arteriovenous malformations: a study comparing quantitative continuous arterial spin labeling and dynamic contrast-enhanced magnetic resonance imaging at 3 T.](#)

Lüdemann L, Jedrzejewski G, Heidenreich J, Han ET, Bruhn H.  
Magn Reson Imaging. 2011 Nov;29(9):1157-64. Epub 2011 Sep 14.

[Perfusion MRI \(dynamic susceptibility contrast imaging\) with different measurement approaches for the evaluation of blood flow and blood volume in human gliomas.](#)

Thomsen H, Steffensen E, Larsson EM.

Acta Radiol. 2011 Nov 23. [Epub ahead of print]

[Quantitative Blood Flow Measurements in Gliomas Using Arterial Spin-Labeling at 3T: Intermodality Agreement and Inter- and Intraobserver Reproducibility Study.](#)

Hirai T, Kitajima M, Nakamura H, Okuda T, Sasao A, Shigematsu Y, Utsunomiya D, Oda S, Uetani H, Morioka M, Yamashita Y.

AJNR Am J Neuroradiol. 2011 Dec;32(11):2073-9. Epub 2011 Sep 29.

[Regional cerebral blood flow in late-life depression: arterial spin labelling magnetic resonance study.](#)

Colloby SJ, Firbank MJ, He J, Thomas AJ, Vasudev A, Parry SW, O'Brien JT.

Br J Psychiatry. 2011 Dec 22. [Epub ahead of print]

[Simultaneous arterial spin labeling cerebral blood flow and morphological assessments for detection of Alzheimer's disease.](#)

Dashjamts T, Yoshiura T, Hiwatashi A, Yamashita K, Monji A, Ohyagi Y, Kamano H, Kawashima T, Kira J, Honda H.

Acad Radiol. 2011 Dec;18(12):1492-9. Epub 2011 Sep 9.

[The relationship of resting cerebral blood flow and brain activation during a social cognition task in adolescents with chronic moderate to severe traumatic brain injury: a preliminary investigation.](#)

Newsome MR, Scheibel RS, Chu Z, Hunter JV, Li X, Wilde EA, Lu H, Wang ZJ, Lin X, Steinberg JL, Vasquez AC, Cook L, Levin HS.

Int J Dev Neurosci. 2011 Nov 22. [Epub ahead of print]

[Voxel-level comparison of arterial spin-labeled perfusion MRI and FDG-PET in Alzheimer disease.](#)

Chen Y, Wolk DA, Reddin JS, Korczykowski M, Martinez PM, Musiek ES, Newberg AB, Julin P, Arnold SE, Greenberg JH, Detre JA.

Neurology. 2011 Nov 16. [Epub ahead of print]

## Single case study

[Brain death: evaluation of cerebral blood flow by use of arterial spin labeling.](#)

Yun TJ, Sohn CH, Yoon BW, Jeon BS, Choi SH, Kim JH, Han MH, Chang KH.

Circulation. 2011 Dec 6;124(23):2572-3. No abstract available.

[Crossed cerebellar hyperperfusion after MELAS attack followed up by whole brain continuous arterial spin labeling perfusion imaging.](#)

Tsujikawa T, Yamamoto T, Ikawa M, Yoneda M, Kimura H.

Acta Radiol. 2011 Dec 2. [Epub ahead of print]

# Comparison of ASL Techniques or ASL compared with other imaging methods

[Arterial spin-labeling magnetic resonance imaging: the timing of regional maximal perfusion-related signal intensity revealed by a multiphase technique.](#)

Noguchi T, Yoshiura T, Hiwatashi A, Togao O, Yamashita K, Nagao E, Honda H.  
Jpn J Radiol. 2011 Dec 16. [Epub ahead of print]

[Comparison of relative cerebral blood flow maps using pseudo-continuous arterial spin labeling and single photon emission computed tomography.](#)

Liu P, Uh J, Devous MD, Adinoff B, Lu H.  
NMR Biomed. 2011 Dec 2. doi: 10.1002/nbm.1792. [Epub ahead of print]

[Feasibility of pseudocontinuous arterial spin labeling at 7 T with whole-brain coverage.](#)

Ghariq E, Teeuwisse WM, Webb AG, van Osch MJ.  
MAGMA. 2011 Dec 27. [Epub ahead of print]

[MR perfusion imaging using the arterial spin labeling technique for breast cancer.](#)

Kawashima M, Katada Y, Shukuya T, Kojima M, Nozaki M.  
J Magn Reson Imaging. 2011 Nov 16. doi: 10.1002/jmri.22882. [Epub ahead of print]

[Noncontrast Functional MRI of the Kidneys.](#)

Mannelli L, Maki JH, Osman SF, Chandarana H, Lomas DJ, Shuman WP, Linnau KF, Green DE, Laffi G, Moshiri M.  
Curr Urol Rep. 2011 Nov 19. [Epub ahead of print]

[Perfusion imaging of cerebral arteriovenous malformations: a study comparing quantitative continuous arterial spin labeling and dynamic contrast-enhanced magnetic resonance imaging at 3 T.](#)

Lüdemann L, Jedrzejewski G, Heidenreich J, Han ET, Bruhn H.  
Magn Reson Imaging. 2011 Nov;29(9):1157-64. Epub 2011 Sep 14.

[Perfusion MRI \(dynamic susceptibility contrast imaging\) with different measurement approaches for the evaluation of blood flow and blood volume in human gliomas.](#)

Thomsen H, Steffensen E, Larsson EM.  
Acta Radiol. 2011 Nov 23. [Epub ahead of print]

[Renal Perfusion 3-T MR Imaging: A Comparative Study of Arterial Spin Labeling and Dynamic Contrast-enhanced Techniques.](#)

Wu WC, Su MY, Chang CC, Tseng WY, Liu KL.  
Radiology. 2011 Dec;261(3):845-53.

[Resting State Functional Connectivity in Perfusion Imaging: Correlation Maps with BOLD Connectivity and Resting State Perfusion.](#)

Viviani R, Messina I, Walter M.  
PLoS One. 2011;6(11):e27050. Epub 2011 Nov 4.

[Voxel-level comparison of arterial spin-labeled perfusion MRI and FDG-PET in Alzheimer disease.](#)

Chen Y, Wolk DA, Reddin JS, Korczykowski M, Martinez PM, Musiek ES, Newberg AB, Julin P, Arnold SE, Greenberg JH, Detre JA.  
Neurology. 2011 Nov 16. [Epub ahead of print]

## Functional Imaging / BOLD

[A tale of two itches Common features and notable differences in brain activation evoked by cowhage and histamine induced itch.](#)

Papoiu AD, Coghill RC, Kraft RA, Wang H, Yosipovitch G.  
Neuroimage. 2011 Nov 12. [Epub ahead of print]

[Calibrated fMRI during a cognitive Stroop task reveals reduced metabolic response with increasing age.](#)

Mohtasib RS, Lumley G, Goodwin JA, Emsley HC, Sluming V, Parkes LM.  
Neuroimage. 2012 Jan 16;59(2):1143-51. Epub 2011 Aug 5.

[Genetic modulation of neural response during working memory in healthy individuals: interaction of glucocorticoid receptor and dopaminergic genes.](#)

El-Hage W, Phillips ML, Radua J, Gohier B, Zelaya FO, Collier DA, Surguladze SA.  
Mol Psychiatry. 2011 Nov 15. doi: 10.1038/mp.2011.145. [Epub ahead of print]

[Indication of BOLD-specific venous flow-volume changes from precisely controlled hyperoxic vs. hypercapnic calibration.](#)

Mark CI, Pike GB.  
J Cereb Blood Flow Metab. 2011 Dec 14. doi: 10.1038/jcbfm.2011.174. [Epub ahead of print]

[Localization of the hand motor area by arterial spin labeling and blood oxygen level-dependent functional magnetic resonance imaging.](#)

Pimentel MA, Vilela P, Sousa I, Figueiredo P.  
Hum Brain Mapp. 2011 Nov 28. doi: 10.1002/hbm.21418. [Epub ahead of print]

[Measuring brain oxygenation in humans using a multiparametric quantitative blood oxygenation level dependent MRI approach.](#)

Christen T, Schmiedeskamp H, Straka M, Bammer R, Zaharchuk G.  
Magn Reson Med. 2011 Dec 12. doi: 10.1002/mrm.23283. [Epub ahead of print]

[Resting State Functional Connectivity in Perfusion Imaging: Correlation Maps with BOLD Connectivity and Resting State Perfusion.](#)

Viviani R, Messina I, Walter M.  
PLoS One. 2011;6(11):e27050. Epub 2011 Nov 4.



[The relationship of resting cerebral blood flow and brain activation during a social cognition task in adolescents with chronic moderate to severe traumatic brain injury: a preliminary investigation.](#)

Newsome MR, Scheibel RS, Chu Z, Hunter JV, Li X, Wilde EA, Lu H, Wang ZJ, Lin X, Steinberg JL, Vasquez AC, Cook L, Levin HS.

Int J Dev Neurosci. 2011 Nov 22. [Epub ahead of print]

## Physiological Parameters beside CBF

[Mapping of Cerebral Oxygen Extraction Fraction Changes with Susceptibility-weighted Phase Imaging.](#)

Zaitzu Y, Kudo K, Terae S, Yazu R, Ishizaka K, Fujima N, Tha KK, Haacke EM, Sasaki M, Shirato H.

Radiology. 2011 Dec;261(3):930-6. Epub 2011 Oct 26.

[Quantification of arterial cerebral blood volume using multiphase-balanced SSFP-based ASL.](#)

Yan L, Li C, Kilroy E, Wehrli FW, Wang DJ.

Magn Reson Med. 2011 Nov 29. doi: 10.1002/mrm.23218. [Epub ahead of print]

## Technical Improvement/ Parameter Optimisation/ Theoretical Papers

[Background suppression in arterial spin labeling MRI with a separate neck labeling coil.](#)

Shen Q, Duong TQ.

NMR Biomed. 2011 Nov;24(9):1111-8. doi: 10.1002/nbm.1666. Epub 2011 Feb 4.

[Efficient sampling of early signal arrival for estimation of perfusion and transit time in whole-brain arterial spin labeling.](#)

Lee W, Janik R, Scouten A, Stefanovic B, Sled JG.

Magn Reson Med. 2011 Dec 21. doi: 10.1002/mrm.23222. [Epub ahead of print]

[Magnetisation transfer effects of Q2TIPS pulses in ASL.](#)

De Vita E, Günther M, Golay X, Thomas DL.

MAGMA. 2011 Dec 28. [Epub ahead of print]

[MRI to assess renal structure and function.](#)

Artunc F, Rossi C, Boss A.

Curr Opin Nephrol Hypertens. 2011 Nov;20(6):669-75.

[Optimal Sampling and Estimation in PASL Perfusion Imaging.](#)

Santos N, Sanches JM, Sousa I, Figueiredo P.

IEEE Trans Biomed Eng. 2011 Nov;58(11):3165-74. Epub 2011 Aug 15.

[Pseudo-random arterial modulation \(PRAM\): A novel arterial spin labeling approach to measure flow and blood transit times.](#)

Taei-Tehrani MR, Van Osch MJ, Brown TR.

J Magn Reson Imaging. 2012 Jan;35(1):223-8. doi: 10.1002/jmri.22844. Epub 2011 Oct 11.

[Quantification of arterial cerebral blood volume using multiphase-balanced SSFP-based ASL.](#)

Yan L, Li C, Kilroy E, Wehrli FW, Wang DJ.

Magn Reson Med. 2011 Nov 29. doi: 10.1002/mrm.23218. [Epub ahead of print]

[Reduced resolution transit delay prescan for quantitative continuous arterial spin labeling perfusion imaging.](#)

Dai W, Robson PM, Shankaranarayanan A, Alsop DC.

Magn Reson Med. 2011 Nov 14. doi: 10.1002/mrm.23103. [Epub ahead of print]

## Review Papers

[Myocardial Perfusion Using Arterial Spin Labeling CMR Promise and Challenges.](#)

Epstein FH, Meyer CH.

JACC Cardiovasc Imaging. 2011 Dec;4(12):1262-4. No abstract available.

[Non-contrast enhanced MR angiography: Established techniques.](#)

Miyazaki M, Akahane M.

J Magn Reson Imaging. 2012 Jan;35(1):1-19. doi: 10.1002/jmri.22789.

## Job offerings

If you have any vacancies send them to [jobs@asl-network.org](mailto:jobs@asl-network.org)

## Feature articles

If you like to write a comment on an interesting article mail it to [newsletter@asl-network.org](mailto:newsletter@asl-network.org)