

Dear Colleagues,

Here is the ASL Newsletter No. 27.

Kind Regards,
Ina

Recent publications February 2013, (e-publications might have been earlier):

Content:

Animal studies	2
Pharmacological / Drug studies	2
Perfusion studies other than on the brain	2
Cerebral blood flow studies	3
CBF correlation with age.....	3
CBF regional comparison	3
Studies on special diseases	3
Comparison of ASL Techniques or ASL compared with other Imaging methods.....	5
Functional Imaging / BOLD	6
Physiological Parameters besides CBF.....	6
Technical Improvement/ Parameter Optimisation/ Theoretical Papers	7
Review Paper/ Historical Review	7
Job offerings	8
Feature articles.....	8

Animal studies

[Cerebral blood flow changes after brain injury in human amyloid-beta knock-in mice.](#)

Abrahamson EE, Foley LM, Dekosky ST, Kevin Hitchens T, Ho C, Kochanek PM, Ikonomic MD.

J Cereb Blood Flow Metab. 2013 Feb 27. doi: 10.1038/jcbfm.2013.24. [Epub ahead of print]

Pharmacological / Drug studies

[Cortical responses to amphetamine exposure studied by pCASL MRI and pharmacokinetic/pharmacodynamic dose modeling.](#)

Nordin LE, Li TQ, Brogren J, Johansson P, Sjögren N, Hannesdottir K, Björk C, Segerdahl M, Wang DJ, Julin P.

Neuroimage. 2013 Mar;68:75-82. doi: 10.1016/j.neuroimage.2012.11.035. Epub 2012 Dec

[Acute effects of single-dose aripiprazole and haloperidol on resting cerebral blood flow \(rCBF\) in the human brain.](#)

Handley R, Zelaya FO, Reinders AA, Marques TR, Mehta MA, O'Gorman R, Alsop DC, Taylor H, Johnston A, Williams S, McGuire P, Pariante CM, Kapur S, Dazzan P.

Hum Brain Mapp. 2013 Feb;34(2):272-82. doi: 10.1002/hbm.21436. Epub 2012 Mar 25.

[Effects of subanesthetic dose of nitrous oxide on cerebral blood flow and metabolism: a multimodal magnetic resonance imaging study in healthy volunteers.](#)

Dashdorj N, Corrie K, Napolitano A, Petersen E, Mahajan RP, Auer DP.

Anesthesiology. 2013 Mar;118(3):577-86. doi: 10.1097/ALN.0b013e3182800d58.

Perfusion studies other than on the brain

[Decreased retinal-choroidal blood flow in retinitis pigmentosa as measured by MRI.](#)

Zhang Y, Harrison JM, Nateras OS, Chalfin S, Duong TQ.

Doc Ophthalmol. 2013 Feb 14. [Epub ahead of print]

[Correlation of Biexponential Diffusion Parameters With Arterial Spin-Labeling Perfusion MRI: Results in Transplanted Kidneys.](#)

Heusch P, Wittsack HJ, Heusner T, Buchbender C, Quang MN, Martirosian P, Bilk P, Kröpil P, Blondin D, Antoch G, Lanzman RS.

Invest Radiol. 2013 Mar;48(3):140-4. doi: 10.1097/RLI.0b013e318277bfe3.

[Noncontrast skeletal muscle oximetry.](#)

Zheng J, An H, Coggan AR, Zhang X, Bashir A, Muccigrosso D, Peterson LR, Gropler RJ.

Magn Reson Med. 2013 Feb 19. doi: 10.1002/mrm.24669. [Epub ahead of print]

Cerebral blood flow studies

CBF correlation with age

[The Relationship between Cortical Blood Flow and Sub-Cortical White-Matter Health across the Adult Age Span.](#)

Chen JJ, Rosas HD, Salat DH.

PLoS One. 2013;8(2):e56733. doi: 10.1371/journal.pone.0056733. Epub 2013 Feb 21.

[Regional changes in brain perfusion during brain maturation measured non-invasively with Arterial Spin Labeling MRI in neonates.](#)

De Vis JB, Petersen ET, de Vries LS, Groenendaal F, Kersbergen KJ, Alderliesten T, Hendrikse J, Benders MJ.

Eur J Radiol. 2013 Mar;82(3):538-43. doi: 10.1016/j.ejrad.2012.10.013. Epub 2012 Nov 27.

CBF regional comparison

[Anteroposterior perfusion heterogeneity in human hippocampus measured by arterial spin labeling MRI.](#)

Li X, Sarkar SN, Purdy DE, Spence JS, Haley RW, Briggs RW.

NMR Biomed. 2013 Feb 19. doi: 10.1002/nbm.2898. [Epub ahead of print]

Studies on special diseases

[Periprocedural Arterial Spin Labeling and Dynamic Susceptibility Contrast Perfusion in Detection of Cerebral Blood Flow in Patients With Acute Ischemic Syndrome.](#)

Nael K, Meshksar A, Liebeskind DS, Wang DJ, Ellingson BM, Salamon N, Villablanca JP; on behalf of UCLA Stroke investigators.

Stroke. 2013 Feb 6. [Epub ahead of print]

[Tumor blood flow from arterial spin labeling perfusion MRI: A key parameter in distinguishing high-grade gliomas from primary cerebral lymphomas, and in predicting genetic biomarkers in high-grade gliomas.](#)

Yoo RE, Choi SH, Cho HR, Kim TM, Lee SH, Park CK, Park SH, Kim IH, Yun TJ, Kim JH, Sohn CH, Han MH, Chang KH.

J Magn Reson Imaging. 2013 Feb 6. doi: 10.1002/jmri.24026. [Epub ahead of print]

[Changes in cerebral blood flow and vasoreactivity to CO\(2\) measured by Arterial Spin Labeling after 6 days at 4,350 m.](#)

Villien M, Bouzat P, Rupp T, Robach P, Lamalle L, Troprès I, Estève F, Krainik A, Lévy P, Warnking JM, Verges S.

Neuroimage. 2013 Feb 2. doi:pii: S1053-8119(13)00113-4. 10.1016/j.neuroimage.2013.01.066. [Epub ahead of print]

[At-risk brain tissue identified with arterial spin labeling in neurotuberculosis.](#)

Margariti P, Sanchez-Montanez A, Delgado I, Elorza Alvarez I, Vazquez E.
Pediatr Radiol. 2013 Feb 2. [Epub ahead of print]

[Correlation of Biexponential Diffusion Parameters With Arterial Spin-Labeling Perfusion MRI: Results in Transplanted Kidneys.](#)

Heusch P, Wittsack HJ, Heusner T, Buchbender C, Quang MN, Martirosian P, Bilk P, Kröpil P, Blondin D, Antoch G, Lanzman RS.
Invest Radiol. 2013 Mar;48(3):140-4. doi: 10.1097/RLI.0b013e318277bfe3.

[Functional imaging for interpretation of pain pathways: current clinical application/relevance and future initiatives.](#)

Clarke CF, Lawrence KS.
Curr Pain Headache Rep. 2013 Feb;17(2):311. doi: 10.1007/s11916-012-0311-x.

[Regional cerebral blood flow and cerebrovascular reactivity in Alzheimer's disease and vascular dementia assessed by arterial spin labeling magnetic resonance imaging.](#)

Gao YZ, Zhang JJ, Liu H, Wu GY, Xiong L, Shu M.
Curr Neurovasc Res. 2013 Feb 1;10(1):49-53.

[Arterial spin labeling in patients with chronic cerebral artery steno-occlusive disease: correlation with 15O-PET.](#)

Kamano H, Yoshiura T, Hiwatashi A, Abe K, Togao O, Yamashita K, Honda H.
Acta Radiol. 2013 Feb 1;54(1):99-106. doi: 10.1258/ar.2012.120450. Epub 2012 Oct 22.

[Differentiating primary CNS lymphoma from glioblastoma multiforme: assessment using arterial spin labeling, diffusion-weighted imaging, and \(18\)F-fluorodeoxyglucose positron emission tomography.](#)

Yamashita K, Yoshiura T, Hiwatashi A, Togao O, Yoshimoto K, Suzuki SO, Abe K, Kikuchi K, Maruoka Y, Mizoguchi M, Iwaki T, Honda H.
Neuroradiology. 2013 Feb;55(2):135-43. doi: 10.1007/s00234-012-1089-6. Epub 2012 Sep 9.

[Relationships between hypercarbic reactivity, cerebral blood flow, and arterial circulation times in patients with moyamoya disease.](#)

Donahue MJ, Ayad M, Moore R, van Osch M, Singer R, Clemmons P, Strother M.
J Magn Reson Imaging. 2013 Feb 25. doi: 10.1002/jmri.24070. [Epub ahead of print]

[Hashimoto's encephalopathy with hippocampus involvement detected on continuous arterial spin labeling.](#)

Ishitobi M, Yoneda M, Ikawa M, Matsunaga A, Ueno K, Kimura H, Wada Y.
Psychiatry Clin Neurosci. 2013 Feb;67(2):128-9. doi: 10.1111/pcn.12019. No abstract available.

[Cerebral white matter blood flow and energy metabolism in multiple sclerosis.](#)

Steen C, D'haeseleer M, Hoogduin JM, Fierens Y, Cambron M, Mostert JP, Heersema DJ, Koch MW, De Keyser J.
Mult Scler. 2013 Feb 21. [Epub ahead of print]

[Reduced neuronal activity in language-related regions after transcranial magnetic stimulation therapy for auditory verbal hallucinations.](#)

Kindler J, Homan P, Jann K, Federspiel A, Flury R, Hauf M, Strik W, Dierks T, Hubl D. Biol Psychiatry. 2013 Mar 15;73(6):518-24. doi: 10.1016/j.biopsych.2012.06.019. Epub 2012 Jul 27.

[Cerebral blood flow changes after brain injury in human amyloid-beta knock-in mice.](#)

Abrahamson EE, Foley LM, Dekosky ST, Kevin Hitchens T, Ho C, Kochanek PM, Ikonomic MD. J Cereb Blood Flow Metab. 2013 Feb 27. doi: 10.1038/jcbfm.2013.24. [Epub ahead of print]

[Effect of carotid artery stenting on cerebral blood flow: evaluation of hemodynamic changes using arterial spin labeling.](#)

Yun TJ, Sohn CH, Han MH, Yoon BW, Kang HS, Kim JE, Paeng JC, Choi SH, Kim JH, Chang KH. Neuroradiology. 2013 Feb;55(3):271-81. doi: 10.1007/s00234-012-1104-y. Epub 2012 Oct 24.

Comparison of ASL Techniques or ASL compared with other Imaging methods

[Periprocedural Arterial Spin Labeling and Dynamic Susceptibility Contrast Perfusion in Detection of Cerebral Blood Flow in Patients With Acute Ischemic Syndrome.](#)

Nael K, Meshksar A, Liebeskind DS, Wang DJ, Ellingson BM, Salamon N, Villablanca JP; on behalf of UCLA Stroke investigators. Stroke. 2013 Feb 6. [Epub ahead of print]

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[Arterial spin labeling in patients with chronic cerebral artery steno-occlusive disease: correlation with 15O-PET.](#)

Kamano H, Yoshiura T, Hiwatashi A, Abe K, Togao O, Yamashita K, Honda H. Acta Radiol. 2013 Feb 1;54(1):99-106. doi: 10.1258/ar.2012.120450. Epub 2012 Oct 22.

[Differentiating primary CNS lymphoma from glioblastoma multiforme: assessment using arterial spin labeling, diffusion-weighted imaging, and \(18\)F-fluorodeoxyglucose positron emission tomography.](#)

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Functional Imaging / BOLD

[Coupling of cerebral blood flow and oxygen metabolism is conserved for chromatic and luminance stimuli in human visual cortex.](#)

Leontiev O, Buracas GT, Liang C, Ances BM, Perthen JE, Shmuel A, Buxton RB. Neuroimage. 2013 Mar;68:221-8. doi: 10.1016/j.neuroimage.2012.11.050. Epub 2012 Dec 11.

[Template-based approach for detecting motor task activation-related hyperperfusion in pulsed ASL data.](#)

Petr J, Ferré JC, Raoult H, Bannier E, Gauvrit JY, Barillot C. Hum Brain Mapp. 2013 Feb 13. doi: 10.1002/hbm.22243. [Epub ahead of print]

[Relationships between hypercarbic reactivity, cerebral blood flow, and arterial circulation times in patients with moyamoya disease.](#)

Donahue MJ, Ayad M, Moore R, van Osch M, Singer R, Clemmons P, Strother M. J Magn Reson Imaging. 2013 Feb 25. doi: 10.1002/jmri.24070. [Epub ahead of print]

[Normalization of cerebral vasoreactivity using BOLD MRI after intravascular stenting.](#)

Attyé A, Villien M, Tahon F, Warnking J, Detante O, Krainik A. Hum Brain Mapp. 2013 Feb 21. doi: 10.1002/hbm.22255. [Epub ahead of print]

[Noncontrast skeletal muscle oximetry.](#)

Zheng J, An H, Coggan AR, Zhang X, Bashir A, Muccigrosso D, Peterson LR, Gropler RJ. Magn Reson Med. 2013 Feb 19. doi: 10.1002/mrm.24669. [Epub ahead of print]

Physiological Parameters besides CBF

[Measuring biexponential transverse relaxation of the ASL signal at 9.4 T to estimate arterial oxygen saturation and the time of exchange of labeled blood water into cortical brain tissue.](#)

Wells JA, Siow B, Lythgoe MF, Thomas DL. J Cereb Blood Flow Metab. 2013 Feb;33(2):215-24. doi: 10.1038/jcbfm.2012.156. Epub 2012 Nov 21.

[T2-based arterial spin labeling measurements of blood to tissue water transfer in human brain.](#)

Gregori J, Schuff N, Kern R, Günther M. J Magn Reson Imaging. 2013 Feb;37(2):332-42. doi: 10.1002/jmri.23822. Epub 2012 Sep 27.

[Regional effects of magnetization dispersion on quantitative perfusion imaging for pulsed and continuous arterial spin labeling.](#)

Cavuşoğlu M, Pohmann R, Burger HC, Uludağ K. Magn Reson Med. 2013 Feb;69(2):524-30. doi: 10.1002/mrm.24278. Epub 2012 Apr 9.

Technical Improvement/ Parameter Optimisation/ Theoretical Papers

[Improved partial volume correction for single inversion time arterial spin labeling data.](#)

Liang X, Connelly A, Calamante F.

Magn Reson Med. 2013 Feb;69(2):531-7. doi: 10.1002/mrm.24279. Epub 2012 Apr 23.

[Modeling dispersion in arterial spin labeling: Validation using dynamic angiographic measurements.](#)

Chappell MA, Woolrich MW, Kazan S, Jezzard P, Payne SJ, Macintosh BJ.

Magn Reson Med. 2013 Feb;69(2):563-70. doi: 10.1002/mrm.24260. Epub 2012 Apr 5.

[Regional effects of magnetization dispersion on quantitative perfusion imaging for pulsed and continuous arterial spin labeling.](#)

Cavuşoğlu M, Pohmann R, Burger HC, Uludağ K.

Magn Reson Med. 2013 Feb;69(2):524-30. doi: 10.1002/mrm.24278. Epub 2012 Apr 9.

[Pseudo-continuous arterial spin labeling at 7 T for human brain: Estimation and correction for off-resonance effects using a Prescan.](#)

Luh WM, Talagala SL, Li TQ, Bandettini PA.

Magn Reson Med. 2013 Feb;69(2):402-10. doi: 10.1002/mrm.24266. Epub 2012 Apr 9.

[Time-resolved noncontrast enhanced 4-D dynamic magnetic resonance angiography using multibolus TrueFISP-based spin tagging with alternating radiofrequency \(TrueSTAR\).](#)

Yan L, Salamon N, Wang DJ.

Magn Reson Med. 2013 Feb 25. doi: 10.1002/mrm.24689. [Epub ahead of print]

[Noncontrast-enhanced three-dimensional \(3D\) intracranial MR angiography using pseudocontinuous arterial spin labeling and accelerated 3D radial acquisition.](#)

Wu H, Block WF, Turski PA, Mistretta CA, Johnson KM.

Magn Reson Med. 2013 Mar 1;69(3):spcone. doi: 10.1002/mrm.24722. No abstract available.

[An optimized velocity selective arterial spin labeling module with reduced eddy current sensitivity for improved perfusion quantification.](#)

Meakin JA, Jezzard P.

Magn Reson Med. 2013 Mar 1;69(3):832-8. doi: 10.1002/mrm.24302. Epub 2012 May 3.

[Functional perfusion imaging using pseudocontinuous arterial spin labeling with low-flip-angle segmented 3D spiral readouts.](#)

Nielsen JF, Hernandez-Garcia L.

Magn Reson Med. 2013 Feb;69(2):382-90. doi: 10.1002/mrm.24261. Epub 2012 Apr 4.

Review Paper/ Historical Review

[Clinical applications of arterial spin labeling.](#)

Watts JM, Whitlow CT, Maldjian JA.

NMR Biomed. 2013 Feb 3. doi: 10.1002/nbm.2904. [Epub ahead of print]

Job offerings

If you have any vacancies please send them to jobs@asl-network.org

Feature articles

If you would like to write a comment on an interesting article mail it to editor@asl-network.org