

Dear Colleagues,

reading so many abstracts and by browsing many author's names I know a lot of you publishing papers frequently. Maybe after finishing an article for a journal you are happy to write some comments or additional information on your work?!

There is (still) a **featured articles** section in the newsletter which is intended for promotion and more detailed information. I would like to encourage you to use this option for topics/methods/thoughts which might be interesting for the community. Please feel free to contact me (*editorATasl-network.org*).

For 2017 I will try to send the ASL Newsletter on a monthly rhythm again after some issues every two months recently. Sorry for that.

Below you find the ASL Newsletter No. 68.

Kind regards,
Klaus

Recent publications October & November 2016, (Epub & Print)

Note: The '*new*-flag' is assigned to articles which haven't been in earlier newsletters (e.g. as e-publications). Additionally you will find titles printed in **bold letters** which indicates that they are listed for the first time in this particular newsletter. For articles listed multiple times in different sections the bold letters disappear in the later sections.

Content:

Animal Studies.....	3
Pharmacological / Drug Studies / Studies on the Effects of Therapies	3
Cerebral Blood Flow Studies.....	5
CBF Regional Comparison / Regional ASL.....	5
Studies on Special Disease	5
Comparison of ASL Techniques / ASL Compared with Other Imaging Methods / ASL Combined with Other Imaging Methods	10
Functional Imaging / BOLD	11
Others CBF Related.....	12

Animal Studies

Perfusion Studies Other than on the Brain	12
Physiological Parameters besides CBF	12
ASL for Angiography	13
ASL in Kidneys	13
Non-CBF specific: Comparison of ASL Methods/ Comparison of ASL with Other Imaging Methods ASL	14
ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data Corrections	14
Technical Improvement / Parameter Optimization	15
Case Reports	16
Reproducibility Studies	17
Cohort Studies / Gender- and Age Dependencies	17
Others	17
Review Paper / Historical Review / Guidelines	18
Job offerings	19
Featured articles	19

Animal Studies

new

Magnetic resonance imaging of blood-brain barrier permeability in ischemic stroke using diffusion-weighted arterial spin labeling in rats.

Tiwari YV, Lu J, Shen Q, Cerqueira B, Duong TQ.
J Cereb Blood Flow Metab. 2016 Oct 14. pii: 0271678X16673385. [Epub ahead of print]

new

Validation and optimization of hypercapnic-calibrated fMRI from oxygen-sensitive two-photon microscopy.

Gagnon L, Sakadžić S, Lesage F, Pouliot P, Dale AM, Devor A, Buxton RB, Boas DA.
Philos Trans R Soc Lond B Biol Sci. 2016 Oct 5;371(1705). pii: 20150359. doi:
10.1098/rstb.2015.0359.

new

Pulmonary perfusion quantification with flow-sensitive inversion recovery (FAIR) UTE MRI in small animal imaging.

Tibiletti M, Bianchi A, Stiller D, Rasche V.
NMR Biomed. 2016 Dec;29(12):1791-1799. doi: 10.1002/nbm.3657.

Moderate Prenatal Alcohol Exposure Alters Functional Connectivity in the Adult Rat Brain.

Rodriguez CI, Davies S, Calhoun V, Savage DD, Hamilton DA.
Alcohol Clin Exp Res. 2016 Oct;40(10):2134-2146. doi: 10.1111/acer.13175.

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[Emergency Bypass Surgery for Progressive Cerebral Infarction Following Hemorrhagic Onset of Moyamoya Disease:A Case Report].

Hatakeyama J, Yanagisawa T, Kudo E, Togashi S, Shimizu H.
No Shinkei Geka. 2016 Oct;44(10):843-849. Japanese.

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Cerebral perfusion alterations in type 2 diabetes and its relation to insulin resistance and cognitive dysfunction.

Cui Y, Liang X, Gu H, Hu Y, Zhao Z, Yang XY, Qian C, Yang Y, Teng GJ.
Brain Imaging Behav. 2016 Oct 6. [Epub ahead of print]

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Phase I study of low-dose metronomic temozolomide for recurrent malignant gliomas.

Wong ET, Timmons J, Callahan A, O'Loughlin L, Giarusso B, Alsop DC.

BMC Cancer. 2016 Nov 22;16(1):914.

[Free PMC Article](#)

new

Mild thyrotoxicosis leads to brain perfusion changes: An arterial spin labeling study.

Göbel A, Heldmann M, Sartorius A, Göttlich M, Dirk AL, Brabant G, Münte TF.

J Neuroendocrinol. 2016 Nov 9. doi: 10.1111/jne.12446. [Epub ahead of print]

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Eur J Radiol. 2016 Nov;85(11):1987-1992. doi: 10.1016/j.ejrad.2016.08.009.

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Evaluation of recurrent high-grade gliomas treated with bevacizumab: A preliminary report of 3D pseudocontinuous artery spin labeling.

Lyu Y, Liu S, You H, Hou B, Wang Y, Ma W, Feng F.

J Magn Reson Imaging. 2016 Nov 30. doi: 10.1002/jmri.25558. [Epub ahead of print]

Post-ischaemic hyperperfusion in traumatic middle cerebral artery dissection detected by arterial spin labelling of magnetic resonance imaging.

Nomura M, Tamase A, Kamide T, Mori K, Seki S, Iida Y, Suzuki K, Aoki T, Hirano K, Takahashi M, Kawabata Y, Nakano T, Taguchi H.

Neuroradiol J. 2016 Oct;29(5):350-5. doi: 10.1177/1971400916665370.

Noninvasive Measurement of Cerebral Blood Flow Under Anesthesia Using Arterial Spin Labeling MRI: A Pilot Study.

Venkatraghavan L, Poublanc J, Bharadwaj S, Sobczyk O, Crawley AP, Mandell DM, Mikulis DJ, Fisher JA.

J Neurosurg Anesthesiol. 2016 Oct;28(4):331-6. doi: 10.1097/ANA.0000000000000231

Baseline Perfusion Alterations Due to Acute Application of Quetiapine and Pramipexole in Healthy Adults.

Michels L, Scherpriet S, Stämpfli P, Herwig U, Brühl AB.

Int J Neuropsychopharmacol. 2016 Dec 3;19(11). pii: pyw067. doi: 10.1093/ijnp/pyw067.

[Free Article](#)

Cerebral Blood Flow Studies

CBF Regional Comparison / Regional ASL

new

Tonotopic maps in human auditory cortex using arterial spin labeling.

Gardumi A, Ivanov D, Havlicek M, Formisano E, Uludağ K.

Hum Brain Mapp. 2016 Oct 28. doi: 10.1002/hbm.23444. [Epub ahead of print]

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Combining arterial-spin labeling with functional MRI measurement for characterizing patients with minimal hepatic encephalopathy.

Li Y, Liu H, Yang J, Tian X, Yang H, Geng Z.

Hepatol Res. 2016 Oct 7. doi: 10.1111/hepr.12827. [Epub ahead of print]

Misinterpretation of ischaemic infarct location in relationship to the cerebrovascular territories.

Hartkamp NS, Hendrikse J, De Cocker LJ, de Borst GJ, Kappelle LJ, Bokkers RP.

J Neurol Neurosurg Psychiatry. 2016 Oct;87(10):1084-90. doi: 10.1136/jnnp-2015-312906.

[Free PMC Article](#)

Studies on Special Disease

new

Increased cerebral blood flow among adolescents with bipolar disorder at rest is reduced following acute aerobic exercise.

MacIntosh BJ, Shirzadi Z, Scavone A, Metcalfe AW, Islam AH, Korczak D, Goldstein BI.

J Affect Disord. 2016 Oct 21;208:205-213. doi: 10.1016/j.jad.2016.08.060. [Epub ahead of print]

new

Intracranial Arteriovenous Shunting: Detection with Arterial Spin-Labeling and Susceptibility-Weighted Imaging Combined.

Hodel J, Leclerc X, Kalsoum E, Zuber M, Tamazyan R, Benadjaoud MA, Pruvo JP, Piotin M, Baharvahdat H, Zins M, Blanc R.

AJNR Am J Neuroradiol. 2016 Oct 27. [Epub ahead of print]

new

Perfusion MRI can impact treatment decision in ictal-interictal continuum.

Venkatraman A, Khawaja A, Bag AK, Mirza M, Szaflarski JP, Pati S.

J Clin Neurophysiol. 2016 Oct 5. [Epub ahead of print]

new

Cerebrovascular reactivity in the caudate nucleus, lentiform nucleus and thalamus in patients with carotid artery disease.

Hartkamp NS, Bokkers RP, van Osch MJ, de Borst GJ, Hendrikse J.
J Neuroradiol. 2016 Oct 12. pii: S0150-9861(16)30141-9. doi: 10.1016/j.neurad.2016.07.003.
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No Shinkei Geka. 2016 Oct;44(10):843-849. Japanese.

new

Resting-State Hyperperfusion of the Supplementary Motor Area in Catatonia.

Walther S, Schäppi L, Federspiel A, Bohlhalter S, Wiest R, Strik W, Stegmayer K.
Schizophr Bull. 2016 Oct 11. pii: sbw140. [Epub ahead of print]

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Combining arterial-spin labeling with functional MRI measurement for characterizing patients with minimal hepatic encephalopathy.

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Brain Imaging Behav. 2016 Oct 6. [Epub ahead of print]

new

Cerebral blood flow laterality derived from arterial spin labeling as a biomarker for assessing the disease severity of parkinson's disease.

Yamashita K, Hiwatashi A, Togao O, Kikuchi K, Yamaguchi H, Suzuki Y, Kamei R, Yamasaki R, Kira JI, Honda H.
J Magn Reson Imaging. 2016 Oct 3. doi: 10.1002/jmri.25489. [Epub ahead of print]

new

Regional reduction in cortical blood flow among cognitively impaired adults with relapsing-remitting multiple sclerosis patients.

Hojjat SP, Cantrell CG, Vitorino R, Feinstein A, Shirzadi Z, MacIntosh BJ, Crane DE, Zhang L, Morrow SA, Lee L, O'Connor P, Carroll TJ, Aviv RI.
Mult Scler. 2016 Oct;22(11):1421-1428.

new

Quantification of Serial Cerebral Blood Flow in Acute Stroke Using Arterial Spin Labeling.

Harston GW, Okell TW, Sheerin F, Schulz U, Mathieson P, Reckless I, Shah K, Ford GA, Chappell MA, Jezzard P, Kennedy J.
Stroke. 2016 Nov 22. pii: STROKEAHA.116.014707. [Epub ahead of print]

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Phase I study of low-dose metronomic temozolomide for recurrent malignant gliomas.

Wong ET, Timmons J, Callahan A, O'Loughlin L, Giarusso B, Alsop DC.
BMC Cancer. 2016 Nov 22;16(1):914.
[Free PMC Article](#)

new

The assessment of myometrium perfusion in patients with uterine fibroid by arterial spin labeling MRI.

Takahashi N, Yoshino O, Hiraike O, Maeda E, Nakamura M, Hori M, Harada M, Koga K, Saito S, Fujii T, Osuga Y.
Springerplus. 2016 Nov 3;5(1):1907.
[Free PMC Article](#)

new

Hypoperfusion of the thalamus is associated with disability in relapsing remitting multiple sclerosis.

Doche E, Lecocq A, Maarouf A, Duhamel G, Soulier E, Confort-Gouny S, Rico A, Guye M, Audoin B, Pelletier J, Ranjeva JP, Zaaraoui W.
J Neuroradiol. 2016 Nov 16. pii: S0150-9861(16)30169-9. doi: 10.1016/j.neurad.2016.10.001.
[Epub ahead of print]

new

Dynamics of cerebral blood flow in patients with mild non-ischaeamic heart failure.

Erkelens CD, van der Wal HH, de Jong BM, Elting JW, Renken R, Gerritsen M, van Laar PJ, van Deursen VM, van der Meer P, van Veldhuisen DJ, Voors AA, Luijckx GJ.
Eur J Heart Fail. 2016 Nov 14. doi: 10.1002/ejhf.660. [Epub ahead of print]

new

Differentiation of Glioblastoma from Brain Metastasis: Qualitative and Quantitative Analysis Using Arterial Spin Labeling MR Imaging.

Sunwoo L, Yun TJ, You SH, Yoo RE, Kang KM, Choi SH, Kim JH, Sohn CH, Park SW, Jung C, Park CK.
PLoS One. 2016 Nov 18;11(11):e0166662. doi: 10.1371/journal.pone.0166662.
[Free Article](#)

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Mild thyrotoxicosis leads to brain perfusion changes: An arterial spin labeling study.

Göbel A, Heldmann M, Sartorius A, Göttlich M, Dirk AL, Brabant G, Münte TF.
J Neuroendocrinol. 2016 Nov 9. doi: 10.1111/jne.12446. [Epub ahead of print]

new

Reply regarding lesional perfusion abnormalities on arterial spin labeling in Leigh disease.

Whitehead MT, Lee B, Gropman A.
Pediatr Radiol. 2016 Nov 8. [Epub ahead of print] No abstract available.

new

Do lesional perfusion abnormalities on arterial spin labeling truly contribute to the diagnosis of Leigh syndrome?

Finsterer J, Zarrouk-Mahjoub S.
Pediatr Radiol. 2016 Nov 8. [Epub ahead of print] No abstract available.

new

Glucose Metabolism and Its Complicated Relationship with Tumor Growth and Perfusion in Head and Neck Squamous Cell Carcinoma.

Fujima N, Sakashita T, Homma A, Hirata K, Shiga T, Kudo K, Shirato H.
PLoS One. 2016 Nov 8;11(11):e0166236. doi: 10.1371/journal.pone.0166236.
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Stress-induced brain activity, brain atrophy, and clinical disability in multiple sclerosis.

Weygandt M, Meyer-Arndt L, Behrens JR, Wakonig K, Bellmann-Strobl J, Ritter K, Scheel M, Brandt AU, Labadie C, Hetzer S, Gold SM, Paul F, Haynes JD.
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new

Cerebral blood flow measured by arterial spin labeling MRI at resting state in normal aging and Alzheimer's disease.

Zhang N, Gordon ML, Goldberg TE.
Neurosci Biobehav Rev. 2016 Nov 28. pii: S0149-7634(16)30231-7. doi: 10.1016/j.neubiorev.2016.11.023. [Epub ahead of print] Review.

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[Altered Glutamate and Regional Cerebral Blood Flow Levels in Schizophrenia: A ¹H-MRS and pCASL study.](#)

Wijtenburg SA, Wright SN, Korenic SA, Gaston FE, Ndubuizu N, Chiappelli J, McMahon RP, Chen H, Savransky A, Du X, Wang DJ, Kochunov P, Hong LE, Rowland LM. *Neuropsychopharmacology*. 2016 Oct 5. doi: 10.1038/npp.2016.172. [Epub ahead of print]

[Post-ischæmic hyperperfusion in traumatic middle cerebral artery dissection detected by arterial spin labelling of magnetic resonance imaging.](#)

Nomura M, Tamase A, Kamide T, Mori K, Seki S, Iida Y, Suzuki K, Aoki T, Hirano K, Takahashi M, Kawabata Y, Nakano T, Taguchi H. *Neuroradiol J*. 2016 Oct;29(5):350-5. doi: 10.1177/1971400916665370.

[Arterial spin labeling: Pathologically proven superiority over conventional MRI for detection of high-grade glioma progression after treatment.](#)

Nyberg E, Honce J, Kleinschmidt-DeMasters BK, Shukri B, Kreidler S, Nagae L. *Neuroradiol J*. 2016 Oct;29(5):377-83. doi: 10.1177/1971400916665375.

[Acute stroke with major intracranial vessel occlusion: Characteristics of cardioembolism and atherosclerosis-related in situ stenosis/occlusion.](#)

Horie N, Tateishi Y, Morikawa M, Morofuji Y, Hayashi K, Izumo T, Tsujino A, Nagata I, Matsuo T. *J Clin Neurosci*. 2016 Oct;32:24-9. doi: 10.1016/j.jocn.2015.12.043.

[Distinct resting-state perfusion patterns underlie psychomotor retardation in unipolar vs. bipolar depression.](#)

Cantisani A, Stegmayer K, Bracht T, Federspiel A, Wiest R, Horn H, Müller TJ, Schneider C, Höfle O, Strik W, Walther S. *Acta Psychiatr Scand*. 2016 Oct;134(4):329-38. doi: 10.1111/acps.12625.

[Misinterpretation of ischaemic infarct location in relationship to the cerebrovascular territories.](#)

Hartkamp NS, Hendrikse J, De Cocker LJ, de Borst GJ, Kappelle LJ, Bokkers RP. *J Neurol Neurosurg Psychiatry*. 2016 Oct;87(10):1084-90. doi: 10.1136/jnnp-2015-312906.
[Free PMC Article](#)

[Arterial spin labeling perfusion predicts longitudinal decline in semantic variant primary progressive aphasia.](#)

Olm CA, Kandel BM, Avants BB, Detre JA, Gee JC, Grossman M, McMillan CT. *J Neurol*. 2016 Oct;263(10):1927-38. doi: 10.1007/s00415-016-8221-1.

[Arterial Spin-labeling in Central Nervous System Infection.](#)

Noguchi T, Yakushiji Y, Nishihara M, Togao O, Yamashita K, Kikuchi K, Matsuo M, Azama S, Irie H. *Magn Reson Med Sci*. 2016 Oct 11;15(4):386-394.
[Free Article](#)

[Default Mode Network Perfusion in Aneurysmal Subarachnoid Hemorrhage.](#)

Nelson S, Edlow BL, Wu O, Rosenthal ES, Westover MB, Rordorf G. *Neurocrit Care*. 2016 Oct;25(2):237-42. doi: 10.1007/s12028-016-0244-z.

Arterial Spin Labeling to Predict Brain Tumor Grading in Children: Correlations between Histopathologic Vascular Density and Perfusion MR Imaging.

Dangouloff-Ros V, Deroulers C, Foissac F, Badoual M, Shotar E, Grévent D, Calmon R, Pagès M, Grill J, Dufour C, Blauwblomme T, Puget S, Zerah M, Sainte-Rose C, Brunelle F, Varlet P, Boddaert N.

Radiology. 2016 Nov;281(2):553-566.

Cerebral Perfusion Changes in Post-Concussion Syndrome: A Prospective Controlled Cohort Study.

Barlow KM, Marcil LD, Dewey D, Carlson HL, MacMaster FP, Brooks BL, Lebel RM. J Neurotrauma. 2016 Nov 21. [Epub ahead of print]

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A Qualitative Comparison of Arterial Spin Labelling and Dynamic Susceptibility Contrast MRI in 52 Children with a Range of Neurological Conditions.

Armitage PA, Skipper N, Connolly DJ, Griffiths PD.

Br J Radiol. 2016 Nov 18:20160495. [Epub ahead of print]

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Functional Imaging / BOLD

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new

[Effects of reduced oxygen availability on the vascular response and oxygen consumption of the activated human visual cortex.](#)

Rodrigues Barreto F, Mangia S, Garrido Salmon CE.

J Magn Reson Imaging. 2016 Nov 3. doi: 10.1002/jmri.25537. [Epub ahead of print]

new

[Localization of cortical primary motor area of the hand using navigated transcranial magnetic stimulation, BOLD and arterial spin labeling fMRI.](#)

Kallioniemi E, Pitkänen M, Könönen M, Vanninen R, Julkunen P.

J Neurosci Methods. 2016 Nov 1;273:138-148. doi: 10.1016/j.jneumeth.2016.09.002.

Others CBF Related

new

[Insight into the labeling mechanism of acceleration selective arterial spin labeling.](#)

Schmid S, Petersen ET, Van Osch MJ.

MAGMA. 2016 Oct 27. [Epub ahead of print]

new

[Mapping Long-Term Functional Changes in Cerebral Blood Flow by Arterial Spin Labeling.](#)

Ssali T, Anazodo UC, Bureau Y, MacIntosh BJ, Günther M, St Lawrence K.

PLoS One. 2016 Oct 5;11(10):e0164112. doi: 10.1371/journal.pone.0164112.

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Perfusion Studies Other than on the Brain

[Measurement of skeletal muscle perfusion dynamics with pseudo-continuous arterial spin labeling \(pCASL\): Assessment of relative labeling efficiency at rest and during hyperemia, and comparison to pulsed arterial spin labeling \(PASL\).](#)

Englund EK, Rodgers ZB, Langham MC, Mohler ER 3rd, Floyd TF, Wehrli FW.

J Magn Reson Imaging. 2016 Oct;44(4):929-39. doi: 10.1002/jmri.25247.

[Perfusion has no effect on the in vivo CEST effect from Cr \(CrCEST\) in skeletal muscle.](#)

Kogan F, Stafford RB, Englund EK, Gold GE, Hariharan H, Detre JA, Reddy R.

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Physiological Parameters besides CBF

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ASL for Angiography

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ASL for Angiography

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[Selective arterial spin labeling in conjunction with phase-contrast acquisition for the simultaneous visualization of morphology, flow direction, and velocity of individual arteries in the cerebrovascular system.](#)

Lindner T, Larsen N, Jansen O, Helle M.

Magn Reson Med. 2016 Oct 31. doi: 10.1002/mrm.26542. [Epub ahead of print]

[Utility of noncontrast-enhanced time-resolved four-dimensional MR angiography with a vessel-selective technique for intracranial arteriovenous malformations.](#)

Fujima N, Osanai T, Shimizu Y, Yoshida A, Harada T, Nakayama N, Kudo K, Houkin K, Shirato H.

J Magn Reson Imaging. 2016 Oct;44(4):834-45. doi: 10.1002/jmri.25222.

ASL in Kidneys

new

[Renal Arterial Spin Labeling Magnetic Resonance Imaging.](#)

Becker AS, Rossi C.

Nephron. 2016 Oct 20. [Epub ahead of print]

[Renal plasma flow \(RPF\) measured with multiple-inversion-time arterial spin labeling \(ASL\) and tracer kinetic analysis: Validation against a dynamic contrast-enhancement method.](#)

Conlin CC, Oesingmann N, Bolster B Jr, Huang Y, Lee VS, Zhang JL.

Magn Reson Imaging. 2016 Nov 15;37:51-55. doi: 10.1016/j.mri.2016.11.010. [Epub ahead of print]

[Imaging the kidney using magnetic resonance techniques: structure to function.](#)

Mahmoud H, Buchanan C, Francis ST, Selby NM.

Curr Opin Nephrol Hypertens. 2016 Nov;25(6):487-493.

Non-CBF specific: Comparison of ASL Methods/ Comparison of ASL with Other Imaging Methods ASL

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new

[Magnetic resonance imaging of blood-brain barrier permeability in ischemic stroke using diffusion-weighted arterial spin labeling in rats.](#)

Tiwari YV, Lu J, Shen Q, Cerqueira B, Duong TQ.

J Cereb Blood Flow Metab. 2016 Oct 14. pii: 0271678X16673385. [Epub ahead of print]

[Measurement of skeletal muscle perfusion dynamics with pseudo-continuous arterial spin labeling \(pCASL\): Assessment of relative labeling efficiency at rest and during hyperemia, and comparison to pulsed arterial spin labeling \(PASL\).](#)

Englund EK, Rodgers ZB, Langham MC, Mohler ER 3rd, Floyd TF, Wehrli FW.

J Magn Reson Imaging. 2016 Oct;44(4):929-39. doi: 10.1002/jmri.25247.

new

[Renal plasma flow \(RPF\) measured with multiple-inversion-time arterial spin labeling \(ASL\) and tracer kinetic analysis: Validation against a dynamic contrast-enhancement method.](#)

Conlin CC, Oesingmann N, Bolster B Jr, Huang Y, Lee VS, Zhang JL.

Magn Reson Imaging. 2016 Nov 15;37:51-55. doi: 10.1016/j.mri.2016.11.010. [Epub ahead of print]

ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data Corrections

new

[Insight into the labeling mechanism of acceleration selective arterial spin labeling.](#)

Schmid S, Petersen ET, Van Osch MJ.

MAGMA. 2016 Oct 27. [Epub ahead of print]

new

[Magnetic resonance imaging of blood-brain barrier permeability in ischemic stroke using diffusion-weighted arterial spin labeling in rats.](#)

Tiwari YV, Lu J, Shen Q, Cerqueira B, Duong TQ.

J Cereb Blood Flow Metab. 2016 Oct 14. pii: 0271678X16673385. [Epub ahead of print]

new

Using Anatomic Magnetic Resonance Image Information to Enhance Visualization and Interpretation of Functional Images: A Comparison of Methods Applied to Clinical Arterial Spin Labeling Images.

Zhao L, Dai W, Soman S, Hackney D, Wong E, Robson P, Alsop D.
IEEE Trans Med Imaging. 2016 Oct 6. [Epub ahead of print]

new

Mapping Long-Term Functional Changes in Cerebral Blood Flow by Arterial Spin Labeling.

Ssali T, Anazodo UC, Bureau Y, MacIntosh BJ, Günther M, St Lawrence K.
PLoS One. 2016 Oct 5;11(10):e0164112. doi: 10.1371/journal.pone.0164112.
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Cerebral blood flow laterality derived from arterial spin labeling as a biomarker for assessing the disease severity of parkinson's disease.

Yamashita K, Hiwatashi A, Togao O, Kikuchi K, Yamaguchi H, Suzuki Y, Kamei R, Yamasaki R, Kira JI, Honda H.
J Magn Reson Imaging. 2016 Oct 3. doi: 10.1002/jmri.25489. [Epub ahead of print]

Technical Improvement / Parameter Optimization

new

Selective arterial spin labeling in conjunction with phase-contrast acquisition for the simultaneous visualization of morphology, flow direction, and velocity of individual arteries in the cerebrovascular system.

Lindner T, Larsen N, Jansen O, Helle M.
Magn Reson Med. 2016 Oct 31. doi: 10.1002/mrm.26542. [Epub ahead of print]

new

Quantitative measurement of cerebral blood volume using velocity-selective pulse trains.

Liu D, Xu F, Lin DD, van Zijl PC, Qin Q.
Magn Reson Med. 2016 Oct 31. doi: 10.1002/mrm.26515. [Epub ahead of print]

new

Improving the robustness of pseudo-continuous arterial spin labeling to off-resonance and pulsatile flow velocity.

Zhao L, Vidorreta M, Soman S, Detre JA, Alsop DC.
Magn Reson Med. 2016 Oct 23. doi: 10.1002/mrm.26513. [Epub ahead of print]

new

Validation and optimization of hypercapnic-calibrated fMRI from oxygen-sensitive two-photon microscopy.

Gagnon L, Sakadžić S, Lesage F, Pouliot P, Dale AM, Devor A, Buxton RB, Boas DA.
Philos Trans R Soc Lond B Biol Sci. 2016 Oct 5;371(1705). pii: 20150359. doi:
10.1098/rstb.2015.0359.

Case Reports

Velocity-selective-inversion prepared arterial spin labeling.

Qin Q, van Zijl PC.

Magn Reson Med. 2016 Oct;76(4):1136-48. doi: 10.1002/mrm.26010.

new

3D-accelerated, stack-of-spirals acquisitions and reconstruction of arterial spin labeling MRI.

Chang YV, Vidorreta M, Wang Z, Detre JA.

Magn Reson Med. 2016 Nov 3. doi: 10.1002/mrm.26549. [Epub ahead of print]

new

Pulmonary perfusion quantification with flow-sensitive inversion recovery (FAIR) UTE MRI in small animal imaging.

Tibiletti M, Bianchi A, Stiller D, Rasche V.

NMR Biomed. 2016 Dec;29(12):1791-1799. doi: 10.1002/nbm.3657.

Time-efficient measurement of multi-phase arterial spin labeling MR signal in white matter.

Zhang X, Ronen I, Kan HE, Teeuwisse WM, van Osch MJ.

NMR Biomed. 2016 Nov;29(11):1519-1525. doi: 10.1002/nbm.3603.

Prospective motion correction and selective reacquisition using volumetric navigators for vessel-encoded arterial spin labeling dynamic angiography.

Frost R, Hess AT, Okell TW, Chappell MA, Tisdall MD, van der Kouwe AJ, Jezzard P.

Magn Reson Med. 2016 Nov;76(5):1420-1430. doi: 10.1002/mrm.26040.

Case Reports

new

[Emergency Bypass Surgery for Progressive Cerebral Infarction Following Hemorrhagic Onset of Moyamoya Disease: A Case Report].

Hatakeyama J, Yanagisawa T, Kudo E, Togashi S, Shimizu H.

No Shinkei Geka. 2016 Oct;44(10):843-849. Japanese.

Post-ischaemic hyperperfusion in traumatic middle cerebral artery dissection detected by arterial spin labelling of magnetic resonance imaging.

Nomura M, Tamase A, Kamide T, Mori K, Seki S, Iida Y, Suzuki K, Aoki T, Hirano K, Takahashi M, Kawabata Y, Nakano T, Taguchi H.

Neuroradiol J. 2016 Oct;29(5):350-5. doi: 10.1177/1971400916665370.

Noninvasive Measurement of Cerebral Blood Flow Under Anesthesia Using Arterial Spin Labeling MRI: A Pilot Study.

Venkatraghavan L, Poublanc J, Bharadwaj S, Sobczyk O, Crawley AP, Mandell DM, Mikulis DJ, Fisher JA.

J Neurosurg Anesthesiol. 2016 Oct;28(4):331-6. doi: 10.1097/ANA.0000000000000231

Reproducibility Studies

new

[Transcranial Doppler-Based Surrogates for Cerebral Blood Flow: A Statistical Study.](#)

Hart J, Novak V, Saunders C, Gremaud PA.

PLoS One. 2016 Nov 23;11(11):e0165536. doi: 10.1371/journal.pone.0165536.

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Cohort Studies / Gender- and Age Dependencies

new

[Combining arterial-spin labeling with functional MRI measurement for characterizing patients with minimal hepatic encephalopathy.](#)

Li Y, Liu H, Yang J, Tian X, Yang H, Geng Z.

Hepatol Res. 2016 Oct 7. doi: 10.1111/hepr.12827. [Epub ahead of print]

new

[Mean arterial pressure change associated with cerebral blood flow in healthy older adults.](#)

Deverdun J, Akbaraly TN, Charroud C, Abdenmour M, Brickman AM, Chemouny S, Steffener J, Portet F, Bonafe A, Stern Y, Ritchie K, Molino F, Le Bars E, Menjot de Champfleury N.

Neurobiol Aging. 2016 Oct;46:49-57. doi: 10.1016/j.neurobiolaging.2016.05.012.

[Cerebral Perfusion Changes in Post-Concussion Syndrome: A Prospective Controlled Cohort Study.](#)

Barlow KM, Marcil LD, Dewey D, Carlson HL, MacMaster FP, Brooks BL, Lebel RM.

J Neurotrauma. 2016 Nov 21. [Epub ahead of print]

Others

new

[Orientation dependence of microcirculation-induced diffusion signal in anisotropic tissues.](#)

Abdullah OM, Gomez AD, Merchant S, Heidinger M, Poelzing S, Hsu EW.

Magn Reson Med. 2016 Oct;76(4):1252-62. doi: 10.1002/mrm.25980.

new

[Transcranial Doppler-Based Surrogates for Cerebral Blood Flow: A Statistical Study.](#)

Hart J, Novak V, Saunders C, Gremaud PA.

PLoS One. 2016 Nov 23;11(11):e0165536. doi: 10.1371/journal.pone.0165536.

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[Pulmonary perfusion quantification with flow-sensitive inversion recovery \(FAIR\) UTE MRI in small animal imaging.](#)

Tibiletti M, Bianchi A, Stiller D, Rasche V.

NMR Biomed. 2016 Dec;29(12):1791-1799. doi: 10.1002/nbm.3657.

Review Paper / Historical Review / Guidelines

new

[Functional magnetic resonance imaging in chronic ischaemic stroke.](#)

Lake EM, Bazzigaluppi P, Stefanovic B.

Philos Trans R Soc Lond B Biol Sci. 2016 Oct 5;371(1705). pii: 20150353. doi: 10.1098/rstb.2015.0353. Review.

new

[A Qualitative Comparison of Arterial Spin Labelling and Dynamic Susceptibility Contrast MRI in 52 Children with a Range of Neurological Conditions.](#)

Armitage PA, Skipper N, Connolly DJ, Griffiths PD.

Br J Radiol. 2016 Nov 18:20160495. [Epub ahead of print]

new

[ASL and susceptibility-weighted imaging contribution to the management of acute ischaemic stroke.](#)

Vercllytte S, Fisch O, Colas L, Vanaerde O, Toledano M, Budzik JF.

Insights Imaging. 2016 Nov 7. [Epub ahead of print] Review.

new

[Cognitive impairment after traumatic brain injury: The role of MRI and possible pathological basis.](#)

Wang ML, Li WB.

J Neurol Sci. 2016 Nov 15;370:244-250. doi: 10.1016/j.jns.2016.09.049. Review.

new

[Arterial Spin Labeling Perfusion of the Brain: Emerging Clinical Applications.](#)

Haller S, Zaharchuk G, Thomas DL, Lovblad KO, Barkhof F, Golay X.

Radiology. 2016 Nov;281(2):337-356.

[Arterial spin labeling: Pathologically proven superiority over conventional MRI for detection of high-grade glioma progression after treatment.](#)

Nyberg E, Honce J, Kleinschmidt-DeMasters BK, Shukri B, Kreidler S, Nagae L.

Neuroradiol J. 2016 Oct;29(5):377-83. doi: 10.1177/1971400916665375.

[Noninvasive Measurement of Cerebral Blood Flow Under Anesthesia Using Arterial Spin Labeling MRI: A Pilot Study.](#)

Venkatraghavan L, Poublanc J, Bharadwaj S, Sobczyk O, Crawley AP, Mandell DM, Mikulis DJ, Fisher JA.

J Neurosurg Anesthesiol. 2016 Oct;28(4):331-6. doi: 10.1097/ANA.0000000000000231

[Fifty years of brain imaging in neonatal encephalopathy following perinatal asphyxia.](#)

Groenendaal F, de Vries LS.

Pediatr Res. 2016 Nov 2. doi: 10.1038/pr.2016.195. [Epub ahead of print] Review.

[Imaging the kidney using magnetic resonance techniques: structure to function.](#)

Mahmoud H, Buchanan C, Francis ST, Selby NM.
Curr Opin Nephrol Hypertens. 2016 Nov;25(6):487-493.

[Cerebral blood flow measured by arterial spin labeling MRI at resting state in normal aging and Alzheimer's disease.](#)

Zhang N, Gordon ML, Goldberg TE.
Neurosci Biobehav Rev. 2016 Nov 28. pii: S0149-7634(16)30231-7. doi:
10.1016/j.neubiorev.2016.11.023. [Epub ahead of print] Review.

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