

Dear Colleagues,

here is the ASL Newsletter No. 88.

If you have tried to access asl-network.org during the last couple of days, you have noticed that the site was temporarily offline. We solved the causing problems and hope that the page will run smoothly again in the future.

Recently, Stefan Hetzer and colleagues (Charité Berlin, Germany) published a paper on the combination of ASL and magnetic resonance elastography (MRE), which may be of interest for some of you. You will find a link below in the 'ASL Combined with Other Imaging Methods' section.

Kind regards,
Klaus

Recent publications September 2018, (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:

Cerebral Blood Flow Studies.....	2
CBF Regional Comparison / Regional ASL.....	2
Studies on Special Disease	2
Comparison of ASL Techniques / ASL Compared with Other Imaging Methods / ASL Combined with Other Imaging Methods	4
Functional Imaging / BOLD	5
Others CBF Related.....	5
Case Reports.....	5
Cohort Studies / Gender- and Age Dependencies	5
Pharmacological / Drug Studies / Studies on the Effects of Therapies	6
Technical Improvement / Parameter Optimization	6
Reproducibility Studies.....	7
ASL for Angiography	7

ASL in the Liver	7
ASL in Kidneys.....	7
Perfusion Studies others than on Brain	8
Review Paper / Historical Review / Guidelines.....	8
Job Offerings & Featured Articles.....	9

Cerebral Blood Flow Studies

CBF Regional Comparison / Regional ASL

new

Medial temporal lobe volumes in late-life depression: effects of age and vascular risk factors.

Taylor WD, Deng Y, Boyd BD, Donahue MJ, Albert K, McHugo M, Gandelman JA, Landman BA.

Brain Imaging Behav. 2018 Sep 24. doi: 10.1007/s11682-018-9969-y. [Epub ahead of print]

new

Cerebral blood flow in striatal regions is associated with apathy in patients with schizophrenia.

Schneider K, Michels L, Hartmann-Riemer MN, Burrer A, Tobler PN, Stämpfli P, Kirschner M, Seifritz E, Kaiser S.

J Psychiatry Neurosci. 2018 Sep 7;43(6):170150. doi: 10.1503/jpn.170150. [Epub ahead of print]

Studies on Special Disease

new

Medial temporal lobe volumes in late-life depression: effects of age and vascular risk factors.

Taylor WD, Deng Y, Boyd BD, Donahue MJ, Albert K, McHugo M, Gandelman JA, Landman BA.

Brain Imaging Behav. 2018 Sep 24. doi: 10.1007/s11682-018-9969-y. [Epub ahead of print]

new

Clinical Value of Hybrid TOF-PET/MR Imaging-Based Multiparametric Imaging in Localizing Seizure Focus in Patients with MRI-Negative Temporal Lobe Epilepsy.

Shang K, Wang J, Fan X, Cui B, Ma J, Yang H, Zhou Y, Zhao G, Lu J.

AJNR Am J Neuroradiol. 2018 Sep 20. doi: 10.3174/ajnr.A5814. [Epub ahead of print]

new

Combined findings of FDG-PET and arterial spin labeling in sporadic Creutzfeldt-Jakob disease.

Yuan J, Wang S, Hu W.

Prion. 2018 Sep 18. doi: 10.1080/19336896.2018.1525255. [Epub ahead of print]

new

Relationship between Autistic Spectrum Trait and Regional Cerebral Blood Flow in Healthy Male Subjects.

Ota M, Matsuo J, Sato N, Teraishi T, Hori H, Hattori K, Kamio Y, Maikusa N, Matsuda H, Kunugi H.

Psychiatry Investig. 2018 Sep 13. doi: 10.30773/pi.2018.07.27. [Epub ahead of print]

new

Reduced Regional Cerebral Blood Flow Relates to Poorer Cognition in Older Adults With Type 2 Diabetes.

Bangen KJ, Werhane ML, Weigand AJ, Edmonds EC, Delano-Wood L, Thomas KR, Nation DA, Evangelista ND, Clark AL, Liu TT, Bondi MW.

Front Aging Neurosci. 2018 Sep 10;10:270. doi: 10.3389/fnagi.2018.00270. eCollection 2018.

new

Cerebral blood flow in striatal regions is associated with apathy in patients with schizophrenia.

Schneider K, Michels L, Hartmann-Riemer MN, Burrer A, Tobler PN, Stämpfli P, Kirschner M, Seifritz E, Kaiser S.

J Psychiatry Neurosci. 2018 Sep 7;43(6):170150. doi: 10.1503/jpn.170150. [Epub ahead of print]

new

Arterial spin labeling MR imaging for the clinical detection of cerebellar hypoperfusion in patients with spinocerebellar degeneration.

Ikawa M, Kimura H, Kitazaki Y, Sugimoto K, Matsunaga A, Hayashi K, Yamamura O, Tsujikawa T, Hamano T, Yoneda M, Okazawa H, Nakamoto Y.

J Neurol Sci. 2018 Sep 6;394:58-62. doi: 10.1016/j.jns.2018.09.007. [Epub ahead of print]

new

The effect of physical exercise on cerebral blood flow in Alzheimer's disease.

van der Kleij LA, Petersen ET, Siebner HR, Hendrikse J, Frederiksen KS, Sobol NA, Hasselbalch SG, Garde E.

Neuroimage Clin. 2018 Sep 4;20:650-654. doi: 10.1016/j.nicl.2018.09.003. eCollection 2018.

[Free PMC Article](#)

new

Hemodynamic state of periictal hyperperfusion revealed by arterial spin-labeling perfusion MR images with dual postlabeling delay.

Takahara K, Morioka T, Shimogawa T, Haga S, Kameda K, Arihiro S, Sakata A, Mukae N, Iihara K.

eNeurologicalSci. 2018 Jun 26;12:5-18. doi: 10.1016/j.ensci.2018.06.001. eCollection 2018 Sep.

[Free PMC Article](#)

Comparison of ASL Techniques / ASL Compared with Other Imaging Methods / ASL Combined with Other Imaging Methods

new

[Hypercapnia increases brain viscoelasticity.](#)

Hetzer S, Dittmann F, Bormann K, Hirsch S, Lipp A, Wang DJ, Braun J, Sack I.
J Cereb Blood Flow Metab. 2018 Sep 5:271678X18799241. doi: 10.1177/0271678X18799241.
[Epub ahead of print]

new

[Clinical Value of Hybrid TOF-PET/MR Imaging-Based Multiparametric Imaging in Localizing Seizure Focus in Patients with MRI-Negative Temporal Lobe Epilepsy.](#)

Shang K, Wang J, Fan X, Cui B, Ma J, Yang H, Zhou Y, Zhao G, Lu J.
AJNR Am J Neuroradiol. 2018 Sep 20. doi: 10.3174/ajnr.A5814. [Epub ahead of print]

new

[Combined findings of FDG-PET and arterial spin labeling in sporadic Creutzfeldt-Jakob disease.](#)

Yuan J, Wang S, Hu W.
Prion. 2018 Sep 18. doi: 10.1080/19336896.2018.1525255. [Epub ahead of print]

new

[Noninvasive Prediction of IDH1 Mutation and ATRX Expression Loss in Low-Grade Gliomas Using Multiparametric MR Radiomic Features.](#)

Ren Y, Zhang X, Rui W, Pang H, Qiu T, Wang J, Xie Q, Jin T, Zhang H, Chen H, Zhang Y, Lu H, Yao Z, Zhang J, Feng X.
J Magn Reson Imaging. 2018 Sep 8. doi: 10.1002/jmri.26240. [Epub ahead of print]

new

[Arterial spin labeling MR imaging for the clinical detection of cerebellar hypoperfusion in patients with spinocerebellar degeneration.](#)

Ikawa M, Kimura H, Kitazaki Y, Sugimoto K, Matsunaga A, Hayashi K, Yamamura O, Tsujikawa T, Hamano T, Yoneda M, Okazawa H, Nakamoto Y.
J Neurol Sci. 2018 Sep 6;394:58-62. doi: 10.1016/j.jns.2018.09.007. [Epub ahead of print]

new

[Reduced acquisition time PET pharmacokinetic modelling using simultaneous ASL-MRI: proof of concept.](#)

Scott CJ, Jiao J, Melbourne A, Burgos N, Cash DM, De Vita E, Markiewicz PJ, O'Connor A, Thomas DL, Weston PS, Schott JM, Hutton BF, Ourselin S.
J Cereb Blood Flow Metab. 2018 Sep 5:271678X18797343. doi: 10.1177/0271678X18797343.
[Epub ahead of print]

Functional Imaging / BOLD

new

[Improved sensitivity and temporal resolution in perfusion FMRI using velocity selective inversion ASL.](#)

Hernandez-Garcia L, Nielsen JF, Noll DC.

Magn Reson Med. 2018 Sep 6. doi: 10.1002/mrm.27461. [Epub ahead of print]

new

[Resting regional brain activity and connectivity vary with resting blood pressure but not muscle sympathetic nerve activity in normotensive humans: An exploratory study.](#)

Kobuch S, Macefield VG, Henderson LA.

J Cereb Blood Flow Metab. 2018 Sep 5:271678X18798442. doi: 10.1177/0271678X18798442. [Epub ahead of print]

Others CBF Related

new

[Cerebrovascular Reactivity during Prolonged Breath-Hold in Experienced Freedivers.](#)

Keil VC, Eichhorn L, Mutsaerts HJMM, Träber F, Block W, Mädler B, van de Ven K, Siero JCW, MacIntosh BJ, Petr J, Fimmers R, Schild HH, Hattingen E.

AJNR Am J Neuroradiol. 2018 Sep 20. doi: 10.3174/ajnr.A5790. [Epub ahead of print]

Case Reports

new

[Combined findings of FDG-PET and arterial spin labeling in sporadic Creutzfeldt-Jakob disease.](#)

Yuan J, Wang S, Hu W.

Prion. 2018 Sep 18. doi: 10.1080/19336896.2018.1525255. [Epub ahead of print]

Cohort Studies / Gender- and Age Dependencies

new

[Cerebrovascular Reactivity during Prolonged Breath-Hold in Experienced Freedivers.](#)

Keil VC, Eichhorn L, Mutsaerts HJMM, Träber F, Block W, Mädler B, van de Ven K, Siero JCW, MacIntosh BJ, Petr J, Fimmers R, Schild HH, Hattingen E.

AJNR Am J Neuroradiol. 2018 Sep 20. doi: 10.3174/ajnr.A5790. [Epub ahead of print]

new

[Multidelay Arterial Spin-Labeling MRI in Neonates and Infants: Cerebral Perfusion Changes during Brain Maturation.](#)

Kim HG, Lee JH, Choi JW, Han M, Gho SM, Moon Y.

AJNR Am J Neuroradiol. 2018 Sep 13. doi: 10.3174/ajnr.A5774. [Epub ahead of print]

Pharmacological / Drug Studies / Studies on the Effects of Therapies

new

Longitudinal Changes in Regional Cerebral Perfusion and Cognition Following Cardiac Surgery.

Smith PJ, Browndyke JN, Monge ZA, Harshbarger TB, James ML, Gaca JG, Alexander JH, Berger MM, Newman MF, Milano CA, Mathew JP; Neurologic Outcomes Research Group (NORG).

Ann Thorac Surg. 2018 Sep 22. pii: S0003-4975(18)31301-8. doi: 10.1016/j.athoracsur.2018.07.056. [Epub ahead of print]

new

Repetitive Transcranial Electrical Stimulation Induces Quantified Changes in Resting Cerebral Perfusion Measured from Arterial Spin Labeling.

Sherwood MS, Madaris AT, Mullenger CR, McKinley RA.

Neural Plast. 2018 Sep 5;2018:5769861. doi: 10.1155/2018/5769861. eCollection 2018.

new

The effect of physical exercise on cerebral blood flow in Alzheimer's disease.

van der Kleij LA, Petersen ET, Siebner HR, Hendrikse J, Frederiksen KS, Sobol NA, Hasselbalch SG, Garde E.

Neuroimage Clin. 2018 Sep 4;20:650-654. doi: 10.1016/j.nicl.2018.09.003. eCollection 2018.
[Free PMC Article](#)

new

Aortic valve bypass surgery in severe aortic valve stenosis: Insights from cardiac and brain magnetic resonance imaging.

Mantini C, Caulo M, Marinelli D, Chiacchiaretta P, Tartaro A, Cotroneo AR, Di Giammarco G. J Thorac Cardiovasc Surg. 2018 Sep;156(3):1005-1012. doi: 10.1016/j.jtcvs.2018.03.158. Epub 2018 Apr 13.

Technical Improvement / Parameter Optimization

new

Optimization of the spatial modulation function of vessel-encoded pseudo-continuous arterial spin labeling and its application to dynamic angiography.

Suzuki Y, van Osch MJP, Fujima N, Okell TW.

Magn Reson Med. 2018 Sep 19. doi: 10.1002/mrm.27418. [Epub ahead of print]

new

Improved sensitivity and temporal resolution in perfusion FMRI using velocity selective inversion ASL.

Hernandez-Garcia L, Nielsen JF, Noll DC.

Magn Reson Med. 2018 Sep 6. doi: 10.1002/mrm.27461. [Epub ahead of print]

Reproducibility Studies

new

Test-retest reliability of perfusion of the precentral cortex and precentral subcortical white matter on three-dimensional pseudo-continuous arterial spin labeling.

Liu M, Chen Z, Ma L.

J Int Med Res. 2018 Sep;46(9):3788-3795. doi: 10.1177/0300060518779716. Epub 2018 Jun 21.

ASL for Angiography

new

Optimization of the spatial modulation function of vessel-encoded pseudo-continuous arterial spin labeling and its application to dynamic angiography.

Suzuki Y, van Osch MJP, Fujima N, Okell TW.

Magn Reson Med. 2018 Sep 19. doi: 10.1002/mrm.27418. [Epub ahead of print]

ASL in the Liver

new

Spatial-temporal perfusion patterns of the human liver assessed by pseudo-continuous arterial spin labeling MRI.

Martirosian P, Pohmann R, Schraml C, Schwartz M, Kuestner T, Schwenzer NF, Scheffler K, Nikolaou K, Schick F.

Z Med Phys. 2018 Sep 25. pii: S0939-3889(18)30061-8. doi: 10.1016/j.zemedi.2018.08.004. [Epub ahead of print]

ASL in Kidneys

new

Renal functional diagnostics using magnetic resonance imaging.

Kirsch H, Mentzel HJ.

Radiologe. 2018 Sep 17. doi: 10.1007/s00117-018-0451-z. [Epub ahead of print] Review. German.

new

Assessment of Perfusion and Oxygenation of the Human Renal Cortex and Medulla by Quantitative MRI during Handgrip Exercise.

Haddock BT, Francis ST, Larsson HBW, Andersen UB.

J Am Soc Nephrol. 2018 Sep 11. pii: ASN.2018030272. doi: 10.1681/ASN.2018030272. [Epub ahead of print]

new

Arterial spin labelling MRI to measure renal perfusion: a systematic review and statement paper.

Odudu A, Nery F, Harteveld AA, Evans RG, Pendse D, Buchanan CE, Francis ST, Fernández-Seara MA.

Nephrol Dial Transplant. 2018 Sep 1;33(suppl_2):ii15-ii21. doi: 10.1093/ndt/gfy180.

[Free PMC Article](#)

Perfusion Studies others than on Brain

new

Repeatability of Arterial Spin Labeling MRI in Measuring Blood Perfusion in the Human Eye.

Khanal S, Turnbull PRK, Vaghefi E, Phillips JR.

J Magn Reson Imaging. 2018 Sep 25. doi: 10.1002/jmri.26323. [Epub ahead of print]

Review Paper / Historical Review / Guidelines

new

Repeatability of Arterial Spin Labeling MRI in Measuring Blood Perfusion in the Human Eye.

Khanal S, Turnbull PRK, Vaghefi E, Phillips JR.

J Magn Reson Imaging. 2018 Sep 25. doi: 10.1002/jmri.26323. [Epub ahead of print]

new

Stroke in Pregnancy and Review of Current Literature: Arterial Spin-Labeling MRI Can Identify the Presence and Intensity of Collateral Circle.

Morello A, Casseri T, Acampa M, Galluzzi P, Cerase A, Monti L.

J Stroke Cerebrovasc Dis. 2018 Sep 15. pii: S1052-3057(18)30469-5. doi:

10.1016/j.jstrokecerebrovasdis.2018.08.027. [Epub ahead of print]

new

Advances in arterial spin labelling MRI methods for measuring perfusion and collateral flow.

van Osch MJ, Teeuwisse WM, Chen Z, Suzuki Y, Helle M, Schmid S.

J Cereb Blood Flow Metab. 2018 Sep;38(9):1461-1480. doi: 10.1177/0271678X17713434. Epub 2017 Jun 9.

new

Arterial spin labelling MRI to measure renal perfusion: a systematic review and statement paper.

Odudu A, Nery F, Harteveld AA, Evans RG, Pendse D, Buchanan CE, Francis ST, Fernández-Seara MA.

Nephrol Dial Transplant. 2018 Sep 1;33(suppl_2):ii15-ii21. doi: 10.1093/ndt/gfy180.

[Free PMC Article](#)

Job Offerings & Featured Articles

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

If you would like to write a comment on an interesting article, present software or work of common interest, e-mail some information to [editor\[AT\]asl-network.org](mailto:editor@asl-network.org).