

Dear Colleagues,

here is the ASL Newsletter No. 90.

A short reminder for an upcoming **ASL workshop** in March 2019 to which you can submit abstracts until January, 10 (http://fmri.research.umich.edu/events/asl_workshop.php).

As always: please feel encouraged to e-mail me **job offerings, featured articles** or other '**ASL Network news**' to be spread out.

This will be the last newsletter in 2018. Therefore, I will use this opportunity to wish you all a good time until Christmas and pleased days of Christmas.

Kind regards,
Klaus

Recent publications

November 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	3
Comparison of ASL Techniques / ASL Compared with Other Imaging Methods / ASL Combined with Other Imaging Methods	5
Functional Imaging / BOLD	6
ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data Corrections/ Postprocessing	7
Case Reports.....	7
Cohort Studies / Gender- and Age Dependencies	8
Pharmacological / Drug Studies / Studies on the Effects of Therapies	8
Screening / Prognosis / Prevention.....	9
Technical Improvement / Parameter Optimization	9

Animal Studies.....	10
ASL for Angiography.....	10
ASL in Kidneys.....	10
Others.....	10
Review Paper / Historical Review / Guidelines.....	11
Job Offerings & Featured Articles.....	11

Cerebral Blood Flow Studies

CBF Regional Comparison / Regional ASL

new

New Radiological Findings of Hypertrophic Olivary Degeneration in Two Patients with Brainstem Lymphoma.

Sato S, Shibahara I, Inoue Y, Hide T, Kumabe T.

World Neurosurg. 2018 Nov 26. pii: S1878-8750(18)32720-7. doi: 10.1016/j.wneu.2018.11.161.

[Epub ahead of print]

new

The stronger one-sided relative hypoperfusion, the more pronounced ipsilateral spatial attentional bias in patients with asymptomatic carotid stenosis.

Göttler J, Kaczmarz S, Nuttall R, Griese V, Napiórkowski N, Kallmayer M, Wustrow I, Eckstein HH, Zimmer C, Preibisch C, Finke K, Sorg C.

J Cereb Blood Flow Metab. 2018 Nov 27:271678X18815790. doi: 10.1177/0271678X18815790.

[Epub ahead of print]

new

Are cerebral perfusion and atrophy linked in multiple sclerosis? Evidence for a multifactorial approach to assess neurodegeneration.

Laganà MM, Mendozzi L, Pelizzari L, Bergsland NP, Pugnetti L, Cecconi P, Baselli G, Clerici M, Nemni R, Baglio F.

Curr Neurovasc Res. 2018 Nov 23. doi: 10.2174/1567202616666181123164235. [Epub ahead of print]

new

Abnormal Cerebral Perfusion Profile in Older Adults with HIV-Associated Neurocognitive Disorder: Discriminative Power of Arterial Spin-Labeling.

Narvid J, McCoy D, Dupont SM, Callen A, Tosun D, Hellmuth J, Valcour V.

AJNR Am J Neuroradiol. 2018 Nov 22. doi: 10.3174/ajnr.A5902. [Epub ahead of print]

new

Cerebral Perfusion Territory Changes after Direct Revascularization Surgery in Moyamoya Disease: A Territory Arterial Spin Labeling Study.

Yuan J, Qu J, Zhang D, Liu X, Li J, Wu C, Gao P.

World Neurosurg. 2018 Nov 14. pii: S1878-8750(18)32548-8. doi: 10.1016/j.wneu.2018.11.002. [Epub ahead of print]

new

ASL perfusion features and type of circle of Willis as imaging markers for cerebral hyperperfusion after carotid revascularization: a preliminary study.

Lin T, Lai Z, Zuo Z, Lyu Y, Feng F, You H, Hou B, Qu J, Wu B, Liu C.

Eur Radiol. 2018 Nov 15. doi: 10.1007/s00330-018-5816-1. [Epub ahead of print]

new

Cerebral Blood Flow Features in Chronic Subcortical Stroke: Lesion Location-Dependent Study.

Wang C, Miao P, Liu J, Wei S, Guo Y, Li Z, Zheng D, Cheng J.

Brain Res. 2018 Nov 9. pii: S0006-8993(18)30561-4. doi: 10.1016/j.brainres.2018.11.009. [Epub ahead of print]

Studies on Special Disease

new

Altered resting-state cerebral blood flow and functional connectivity of striatum in bipolar disorder and major depressive disorder.

He Z, Sheng W, Lu F, Long Z, Han S, Pang Y, Chen Y, Luo W, Yu Y, Nan X, Cui Q, Chen H.

Prog Neuropsychopharmacol Biol Psychiatry. 2018 Nov 27. pii: S0278-5846(18)30187-8. doi: 10.1016/j.pnpbp.2018.11.009. [Epub ahead of print]

new

Specificities of Arterial Spin Labeling (ASL) Abnormalities in Acute Seizure.

Schertz M, Joseph B, Nadya P, Belkacem S, Melika SA, Vincent N, Clément C, Delphine L, Didier D, Bruno LY.

J Neuroradiol. 2018 Nov 27. pii: S0150-9861(18)30220-7. doi: 10.1016/j.neurad.2018.11.003. [Epub ahead of print]

new

Anatomical and functional abnormalities on MRI in kabuki syndrome.

Boisgontier J, Tacchella JM, Lemaître H, Lehman N, Saitovitch A, Gatinois V, Boursier G, Sanchez E, Rechtman E, Fillon L, Lyonnet S, Le Quang Sang KH, Baujat G, Rio M, Boute O, Faivre L, Schaefer E, Sanlaville D, Zilbovicius M, Grévent D, Geneviève D, Boddaert N.

Neuroimage Clin. 2018 Nov 19. pii: S2213-1582(18)30358-9. doi: 10.1016/j.nicl.2018.11.020. [Epub ahead of print]

new

Longitudinal assessment of cerebral perfusion and vascular response to hypoventilation in a bigenic mouse model of Alzheimer's disease with amyloid and tau pathology.

Govaerts K, Lechat B, Struys T, Kremer A, Borghgraef P, Van Leuven F, Himmelreich U, Dresselaers T.

NMR Biomed. 2018 Nov 29:e4037. doi: 10.1002/nbm.4037. [Epub ahead of print]

new

The validity of the Acute Stroke Assessment using rapid Pseudo-continuous arterial spin labeling (ASAP-ASL) method for acute thrombectomy.

Oura D, Kawabori M, Niiya Y, Iwasaki M, Satoh S, Yokohama T, Mabuchi S, Houkin K.

J Neurosurg Sci. 2018 Nov 21. doi: 10.23736/S0390-5616.18.04607-6. [Epub ahead of print]

new

Are cerebral perfusion and atrophy linked in multiple sclerosis? Evidence for a multifactorial approach to assess neurodegeneration.

Laganà MM, Mendozzi L, Pelizzari L, Bergsland NP, Pugnetti L, Cecconi P, Baselli G, Clerici M, Nemni R, Baglio F.

Curr Neurovasc Res. 2018 Nov 23. doi: 10.2174/1567202616666181123164235. [Epub ahead of print]

new

Abnormal Cerebral Perfusion Profile in Older Adults with HIV-Associated Neurocognitive Disorder: Discriminative Power of Arterial Spin-Labeling.

Narvid J, McCoy D, Dupont SM, Callen A, Tosun D, Hellmuth J, Valcour V.

AJNR Am J Neuroradiol. 2018 Nov 22. doi: 10.3174/ajnr.A5902. [Epub ahead of print]

new

Evaluating cerebrovascular reactivity during the early symptomatic phase of sport concussion.

Churchill N, Hutchison M, Graham S, Schweizer TA.

J Neurotrauma. 2018 Nov 18. doi: 10.1089/neu.2018.6024. [Epub ahead of print]

new

Long-term Supratentorial Radiological Effects of Surgery and Local Radiation in Children with Infratentorial Ependymoma.

Yecies D, Azad TD, Esparza R, Quon J, Forkert N, MacEachern SJ, Bruckert L, Maleki M, Edwards M, Grant G, Yeom K.

World Neurosurg. 2018 Nov 15. pii: S1878-8750(18)32586-5. doi: 10.1016/j.wneu.2018.11.039. [Epub ahead of print]

new

Cerebral Perfusion Territory Changes after Direct Revascularization Surgery in Moyamoya Disease: A Territory Arterial Spin Labeling Study.

Yuan J, Qu J, Zhang D, Liu X, Li J, Wu C, Gao P.

World Neurosurg. 2018 Nov 14. pii: S1878-8750(18)32548-8. doi: 10.1016/j.wneu.2018.11.002. [Epub ahead of print]

new

ASL perfusion features and type of circle of Willis as imaging markers for cerebral hyperperfusion after carotid revascularization: a preliminary study.

Lin T, Lai Z, Zuo Z, Lyu Y, Feng F, You H, Hou B, Qu J, Wu B, Liu C.

Eur Radiol. 2018 Nov 15. doi: 10.1007/s00330-018-5816-1. [Epub ahead of print]

new

Cerebral Blood Flow Features in Chronic Subcortical Stroke: Lesion Location-Dependent Study.

Wang C, Miao P, Liu J, Wei S, Guo Y, Li Z, Zheng D, Cheng J.

Brain Res. 2018 Nov 9. pii: S0006-8993(18)30561-4. doi: 10.1016/j.brainres.2018.11.009. [Epub ahead of print]

new

Utility of arterial spin labelling MRI for discriminating atypical high-grade glioma from primary central nervous system lymphoma.

Di N, Cheng W, Chen H, Zhai F, Liu Y, Mu X, Chu Z, Lu N, Liu X, Wang B.

Clin Radiol. 2018 Nov 8. pii: S0009-9260(18)30555-5. doi: 10.1016/j.crad.2018.10.003. [Epub ahead of print]

new

Relationship between haemodynamic impairment and collateral blood flow in carotid artery disease.

Hartkamp NS, Petersen ET, Chappell MA, Okell TW, Uyttenboogaart M, Zeebregts CJ, Bokkers RP.

J Cereb Blood Flow Metab. 2018 Nov;38(11):2021-2032. doi: 10.1177/0271678X17724027. Epub 2017 Aug 4.

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

new

Comparison of Resting-State Brain Activation Detected by BOLD, Blood Volume and Blood Flow.

Zhang K, Huang D, Shah NJ.

Front Hum Neurosci. 2018 Nov 8;12:443. doi: 10.3389/fnhum.2018.00443. eCollection 2018. [Free PMC Article](#)

new

Investigating the correlation of arterial spin labeling and dynamic contrast enhanced perfusion in primary tumor of nasopharyngeal carcinoma.

Lin M, Yu X, Luo D, Ouyang H, Xie L, Wu B, Zhou C.

Eur J Radiol. 2018 Nov;108:222-229. doi: 10.1016/j.ejrad.2018.09.034. Epub 2018 Oct 2.

Functional Imaging / BOLD

new

[Altered resting-state cerebral blood flow and functional connectivity of striatum in bipolar disorder and major depressive disorder.](#)

He Z, Sheng W, Lu F, Long Z, Han S, Pang Y, Chen Y, Luo W, Yu Y, Nan X, Cui Q, Chen H. Prog Neuropsychopharmacol Biol Psychiatry. 2018 Nov 27. pii: S0278-5846(18)30187-8. doi: 10.1016/j.pnpbp.2018.11.009. [Epub ahead of print]

new

[Dual-contrast pCASL using simultaneous gradient-echo/spin-echo multiband EPI.](#)

Zhang K, Sturm VJ, Buschle LR, Hahn A, Yun SD, Jon Shah N, Bendszus M, Heiland S, Schlemmer HP, Ziener CH, Kurz FT.

Magn Reson Imaging. 2018 Nov 27. pii: S0730-725X(18)30443-0. doi: 10.1016/j.mri.2018.11.018. [Epub ahead of print]

new

[Anatomical and functional abnormalities on MRI in kabuki syndrome.](#)

Boisgontier J, Tacchella JM, Lemaître H, Lehman N, Saitovitch A, Gatinois V, Boursier G, Sanchez E, Rechtman E, Fillon L, Lyonnet S, Le Quang Sang KH, Baujat G, Rio M, Boute O, Faivre L, Schaefer E, Sanlaville D, Zilbovicius M, Grévent D, Geneviève D, Boddaert N. Neuroimage Clin. 2018 Nov 19. pii: S2213-1582(18)30358-9. doi: 10.1016/j.nicl.2018.11.020. [Epub ahead of print]

new

[Multimodal hyper-connectivity of functional networks using functionally-weighted LASSO for MCI classification.](#)

Li Y, Liu J, Gao X, Jie B, Kim M, Yap PT, Wee CY, Shen D.

Med Image Anal. 2018 Nov 13;52:80-96. doi: 10.1016/j.media.2018.11.006. [Epub ahead of print]

new

[Comparison of Resting-State Brain Activation Detected by BOLD, Blood Volume and Blood Flow.](#)

Zhang K, Huang D, Shah NJ.

Front Hum Neurosci. 2018 Nov 8;12:443. doi: 10.3389/fnhum.2018.00443. eCollection 2018. [Free PMC Article](#)

new

[Evaluating cerebrovascular reactivity during the early symptomatic phase of sport concussion.](#)

Churchill N, Hutchison M, Graham S, Schweizer TA.

J Neurotrauma. 2018 Nov 18. doi: 10.1089/neu.2018.6024. [Epub ahead of print]

new

[Non-invasive evaluation of cerebral perfusion in patients with transient ischemic attack: an fMRI study.](#)

Lv Y, Wei W, Song Y, Han Y, Zhou C, Zhou D, Zhang F, Xue Q, Liu J, Zhao L, Zhang C, Li L, Zang YF, Han X.

J Neurol. 2018 Nov 16. doi: 10.1007/s00415-018-9113-3. [Epub ahead of print]

new

Test-retest reliability of task-based and resting-state blood oxygen level dependence and cerebral blood flow measures.

Holiga Š, Sambataro F, Luzy C, Greig G, Sarkar N, Renken RJ, Marsman JC, Schobel SA, Bertolino A, Dukart J.

PLoS One. 2018 Nov 8;13(11):e0206583. doi: 10.1371/journal.pone.0206583. eCollection 2018.

[Free PMC Article](#)

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

new

Multimodal hyper-connectivity of functional networks using functionally-weighted LASSO for MCI classification.

Li Y, Liu J, Gao X, Jie B, Kim M, Yap PT, Wee CY, Shen D.

Med Image Anal. 2018 Nov 13;52:80-96. doi: 10.1016/j.media.2018.11.006. [Epub ahead of print]

new

Are cerebral perfusion and atrophy linked in multiple sclerosis? Evidence for a multifactorial approach to assess neurodegeneration.

Laganà MM, Mendozzi L, Pelizzari L, Bergsland NP, Pugnetti L, Cecconi P, Baselli G, Clerici M, Nemni R, Baglio F.

Curr Neurovasc Res. 2018 Nov 23. doi: 10.2174/1567202616666181123164235. [Epub ahead of print]

Case Reports

new

New Radiological Findings of Hypertrophic Olivary Degeneration in Two Patients with Brainstem Lymphoma.

Sato S, Shibahara I, Inoue Y, Hide T, Kumabe T.

World Neurosurg. 2018 Nov 26. pii: S1878-8750(18)32720-7. doi: 10.1016/j.wneu.2018.11.161.

[Epub ahead of print]

Cohort Studies / Gender- and Age Dependencies

new

Cerebral blood flow changes after a day of wake, sleep, and sleep deprivation.

Elvsåshagen T, Mutsaerts HJ, Zak N, Norbom LB, Quraishi SH, Pedersen PØ, Malt UF, Westlye LT, van Someren EJ, Bjørnerud A, Groote IR.

Neuroimage. 2018 Nov 21. pii: S1053-8119(18)32110-4. doi: 10.1016/j.neuroimage.2018.11.032. [Epub ahead of print]

new

Long-term Supratentorial Radiological Effects of Surgery and Local Radiation in Children with Infratentorial Ependymoma.

Yecies D, Azad TD, Esparza R, Quon J, Forkert N, MacEachern SJ, Bruckert L, Maleki M, Edwards M, Grant G, Yeom K.

World Neurosurg. 2018 Nov 15. pii: S1878-8750(18)32586-5. doi: 10.1016/j.wneu.2018.11.039. [Epub ahead of print]

new

Multi-phase 3D arterial spin labeling brain MRI in assessing cerebral blood perfusion and arterial transit times in children at 3T.

Hu HH, Rusin JA, Peng R, Shao X, Smith M, Krishnamurthy R, Selvaraj B, Wang DJJ.

Clin Imaging. 2018 Nov 6;53:210-220. doi: 10.1016/j.clinimag.2018.11.001. [Epub ahead of print]

Pharmacological / Drug Studies / Studies on the Effects of Therapies

new

Long-term Supratentorial Radiological Effects of Surgery and Local Radiation in Children with Infratentorial Ependymoma.

Yecies D, Azad TD, Esparza R, Quon J, Forkert N, MacEachern SJ, Bruckert L, Maleki M, Edwards M, Grant G, Yeom K.

World Neurosurg. 2018 Nov 15. pii: S1878-8750(18)32586-5. doi: 10.1016/j.wneu.2018.11.039. [Epub ahead of print]

new

Cerebral Perfusion Territory Changes after Direct Revascularization Surgery in Moyamoya Disease: A Territory Arterial Spin Labeling Study.

Yuan J, Qu J, Zhang D, Liu X, Li J, Wu C, Gao P.

World Neurosurg. 2018 Nov 14. pii: S1878-8750(18)32548-8. doi: 10.1016/j.wneu.2018.11.002. [Epub ahead of print]

new

ASL perfusion features and type of circle of Willis as imaging markers for cerebral hyperperfusion after carotid revascularization: a preliminary study.

Lin T, Lai Z, Zuo Z, Lyu Y, Feng F, You H, Hou B, Qu J, Wu B, Liu C.

Eur Radiol. 2018 Nov 15. doi: 10.1007/s00330-018-5816-1. [Epub ahead of print]

Screening / Prognosis / Prevention

new

Arterial Spin Labeling and Central Precocious Puberty.

Denis J, Dangouloff-Ros V, Pinto G, Flechtner I, Piketty M, Samara D, Levy R, Grévent D, Millischer AE, Brunelle F, Prevot V, Polak M, Boddaert N.

Clin Neuroradiol. 2018 Nov 5. doi: 10.1007/s00062-018-0738-5. [Epub ahead of print]

Technical Improvement / Parameter Optimization

new

Dual-contrast pCASL using simultaneous gradient-echo/spin-echo multiband EPI.

Zhang K, Sturm VJ, Buschle LR, Hahn A, Yun SD, Jon Shah N, Bendszus M, Heiland S, Schlemmer HP, Ziener CH, Kurz FT.

Magn Reson Imaging. 2018 Nov 27. pii: S0730-725X(18)30443-0. doi:

10.1016/j.mri.2018.11.018. [Epub ahead of print]

new

Influence of background suppression and retrospective realignment on free-breathing renal perfusion measurement using pseudo-continuous ASL.

Taso M, Guidon A, Alsop DC.

Magn Reson Med. 2018 Nov 25. doi: 10.1002/mrm.27575. [Epub ahead of print]

new

The validity of the Acute Stroke Assessment using rapid Pseudo-continuous arterial spin labeling (ASAP-ASL) method for acute thrombectomy.

Oura D, Kawabori M, Niiya Y, Iwasaki M, Satoh S, Yokohama T, Mabuchi S, Houkin K.

J Neurosurg Sci. 2018 Nov 21. doi: 10.23736/S0390-5616.18.04607-6. [Epub ahead of print]

new

Intravenous contrast-free standardized exercise perfusion imaging in diabetic feet with ulcers.

Edalati M, Hastings MK, Muccigrosso D, Sorensen CJ, Hildebolt C, Zayed MA, Mueller MJ, Zheng J.

J Magn Reson Imaging. 2018 Nov 16. doi: 10.1002/jmri.26570. [Epub ahead of print]

new

Robust visualization of middle cerebral artery main trunk by enhanced acceleration-selective arterial spin labeling (eAccASL) for intracranial MRA.

Akamine Y, Obara M, Togao O, Shibukawa S, Yoneyama M, Okuaki T, Van Cauteren M.

Magn Reson Med. 2018 Nov 15. doi: 10.1002/mrm.27603. [Epub ahead of print]

Animal Studies

new

[Longitudinal assessment of cerebral perfusion and vascular response to hypoventilation in a bigenic mouse model of Alzheimer's disease with amyloid and tau pathology.](#)

Govaerts K, Lechat B, Struys T, Kremer A, Borghgraef P, Van Leuven F, Himmelreich U, Dresselaers T.

NMR Biomed. 2018 Nov 29:e4037. doi: 10.1002/nbm.4037. [Epub ahead of print]

ASL for Angiography

new

[Robust visualization of middle cerebral artery main trunk by enhanced acceleration-selective arterial spin labeling \(eAccASL\) for intracranial MRA.](#)

Akamine Y, Obara M, Togao O, Shibukawa S, Yoneyama M, Okuaki T, Van Caueren M.

Magn Reson Med. 2018 Nov 15. doi: 10.1002/mrm.27603. [Epub ahead of print]

ASL in Kidneys

new

[Influence of background suppression and retrospective realignment on free-breathing renal perfusion measurement using pseudo-continuous ASL.](#)

Taso M, Guidon A, Alsop DC.

Magn Reson Med. 2018 Nov 25. doi: 10.1002/mrm.27575. [Epub ahead of print]

Others

new

[Cerebral blood flow changes after a day of wake, sleep, and sleep deprivation.](#)

Elvsåshagen T, Mutsaerts HJ, Zak N, Norbom LB, Quraishi SH, Pedersen PØ, Malt UF, Westlye LT, van Someren EJ, Bjørnerud A, Groote IR.

Neuroimage. 2018 Nov 21. pii: S1053-8119(18)32110-4. doi: 10.1016/j.neuroimage.2018.11.032. [Epub ahead of print]

new

[Intravenous contrast-free standardized exercise perfusion imaging in diabetic feet with ulcers.](#)

Edalati M, Hastings MK, Muccigrosso D, Sorensen CJ, Hildebolt C, Zayed MA, Mueller MJ, Zheng J.

J Magn Reson Imaging. 2018 Nov 16. doi: 10.1002/jmri.26570. [Epub ahead of print]

Review Paper / Historical Review / Guidelines

new

[An update on advances in magnetic resonance imaging of multiple system atrophy.](#)

Chelban V, Bocchetta M, Hassanein S, Haridy NA, Houlden H, Rohrer JD.

J Neurol. 2018 Nov 20. doi: 10.1007/s00415-018-9121-3. [Epub ahead of print]

new

[Added value of arterial spin labeling magnetic resonance imaging in pediatric neuroradiology: pitfalls and applications.](#)

Keil VC, Hartkamp NS, Connolly DJA, Morana G, Dremmen MHG, Mutsaerts HJMM, Lequin MH.

Pediatr Radiol. 2018 Nov 17. doi: 10.1007/s00247-018-4269-7. [Epub ahead of print]

new

[Quantitative MRI in post-operative paediatric cerebellar mutism syndrome.](#)

Toescu SM, Hales PW, Aquilina K, Clark CA.

Eur J Radiol. 2018 Nov;108:43-51. doi: 10.1016/j.ejrad.2018.09.007. Epub 2018 Sep 10. Review.

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).