

Dear Colleagues,

here is the ASL Newsletter No. 78 for September 2017.

As some of you might look forward to the ESMRMB in Barcelona (19.-21.Oct.), I would like to remind you on the **ASL Network dinner during the congress** (invitation emails sent about 2 weeks ago)!

Kind regards,
Klaus

Recent publications September 2017, (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.....	2
Pharmacological / Drug Studies / Studies on the Effects of Therapies	2
Cerebral Blood Flow Studies.....	3
CBF Regional Comparison / Regional ASL.....	3
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
Others CBF Related.....	6
Physiological Parameters besides CBF	6
ASL for Angiography	7
ASL in Kidneys.....	7
Non-CBF specific: Comparison of ASL Methods/ Comparison of ASL with Other Diagnostic Methods.....	8
ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data	

Corrections/ Postprocessing	8
Technical Improvement / Parameter Optimization	9
Case Reports.....	9
Reproducibility Studies.....	10
Others	10
Review Paper / Historical Review / Guidelines.....	11
Job Offerings & Featured Articles.....	11

Animal Studies

[Quantification of Mouse Renal Perfusion Using Arterial Spin Labeled MRI at 1 T.](#)

Do QN, Madhuranthakam AJ, Bendel P, Lenkinski RE.

Acad Radiol. 2017 Sep;24(9):1079-1085. doi: 10.1016/j.acra.2017.04.001. Epub 2017 May 8.

Pharmacological / Drug Studies / Studies on the Effects of Therapies

new

[Effective collateral circulation may indicate improved perfusion territory restoration after carotid endarterectomy.](#)

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

Eur Radiol. 2017 Sep 11. doi: 10.1007/s00330-017-5020-8. [Epub ahead of print]

new

[Cerebral hyperperfusion on arterial spin labeling MRI after reperfusion therapy is related to hemorrhagic transformation.](#)

Okazaki S, Yamagami H, Yoshimoto T, Morita Y, Yamamoto H, Toyoda K, Ihara M.

J Cereb Blood Flow Metab. 2017 Sep;37(9):3087-3090. doi: 10.1177/0271678X17718099. Epub 2017 Jun 30.

Cerebral Blood Flow Studies

CBF Regional Comparison / Regional ASL

new

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

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new

[Test-retest reliability of cerebral blood flow in healthy individuals using arterial spin labeling: Findings from the EMBARC study.](#)

Almeida JRC, Greenberg T, Lu H, Chase HW, Fournier J, Cooper CM, Deckersbach T, Adams P, Carmody T, Fava M, Kurian B, McGrath PJ, McInnis MG, Oquendo MA, Parsey R, Weissman M, Trivedi M, Phillips ML.

Magn Reson Imaging. 2017 Sep 6;45:26-33. doi: 10.1016/j.mri.2017.09.004. [Epub ahead of print]

Studies on Special Disease

new

[Cerebral blood flow velocity positively correlates with brain volumes in long-term remitted depression.](#)

Desmidt T, Andersson F, Brizard B, Cottier JP, Patat F, Gissot V, Belzung C, El-Hage W, Camus V.

Prog Neuropsychopharmacol Biol Psychiatry. 2017 Sep 20. pii: S0278-5846(17)30250-6. doi: 10.1016/j.pnpbp.2017.09.018. [Epub ahead of print]

new

[Arterial spin labeling hyperperfusion in Rasmussen's encephalitis: Is it due to focal brain inflammation or a post-ictal phenomenon?](#)

Kumar S, Nagesh CP, Thomas B, Radhakrishnan A, Menon RN, Kesavadas C.

J Neuroradiol. 2017 Sep 18. pii: S0150-9861(17)30249-3. doi: 10.1016/j.neurad.2017.08.002. [Epub ahead of print]

new

[Spontaneous Hemorrhagic Glioblastoma revealed by Arterial Spin Labeling.](#)

Fadili S, Ye BL, Pyatigorskaya N.

World Neurosurg. 2017 Sep 14. pii: S1878-8750(17)31536-X. doi: 10.1016/j.wneu.2017.09.029. [Epub ahead of print]

new

[Added Value of Arterial Spin-Labeling MR Imaging for the Differentiation of Cerebellar Hemangioblastoma from Metastasis.](#)

Kang KM, Sohn CH, You SH, Nam JG, Choi SH, Yun TJ, Yoo RE, Kim JH.

AJNR Am J Neuroradiol. 2017 Sep 14. doi: 10.3174/ajnr.A5363. [Epub ahead of print]

new

Characterization of Skull Base Lesions Using Pseudo-Continuous Arterial Spin Labeling.

Geerts B, Leclercq D, Tezenas du Montcel S, Law-Ye B, Gerber S, Bernardeschi D, Galanaud D, Dormont D, Pyatigorskaya N.

Clin Neuroradiol. 2017 Sep 11. doi: 10.1007/s00062-017-0623-7. [Epub ahead of print]

new

Bacterial meningitis due to Streptococcus pneumoniae following untreated idiopathic hypertrophic pachymeningitis.

Ueno T, Hikichi H, Kon T, Nunomura JI, Tomiyama M.

J Neurol Sci. 2017 Sep 15;380:44-45. doi: 10.1016/j.jns.2017.06.049. Epub 2017 Jun 30. No abstract available.

new

Long-Delay Arterial Spin Labeling Provides More Accurate Cerebral Blood Flow Measurements in Moyamoya Patients: A Simultaneous Positron Emission Tomography/MRI Study.

Fan AP, Guo J, Khalighi MM, Gulaka PK, Shen B, Park JH, Gandhi H, Holley D, Rutledge O, Singh P, Haywood T, Steinberg GK, Chin FT, Zaharchuk G.

Stroke. 2017 Sep;48(9):2441-2449. doi: 10.1161/STROKEAHA.117.017773. Epub 2017 Aug 1.

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Okazaki S, Yamagami H, Yoshimoto T, Morita Y, Yamamoto H, Toyoda K, Ihara M.

J Cereb Blood Flow Metab. 2017 Sep;37(9):3087-3090. doi: 10.1177/0271678X17718099. Epub 2017 Jun 30.

Functional brain MRI in patients complaining of electrohypersensitivity after long term exposure to electromagnetic fields.

Heuser G, Heuser SA.

Rev Environ Health. 2017 Sep 26;32(3):291-299. doi: 10.1515/reveh-2017-0014.

Early hypoperfusion on arterial spin labeling may be a diagnostic marker for acute encephalopathy with biphasic seizures and late reduced diffusion.

Yokoyama H, Baba S, Oyama J, Moriyama K, Morio T.

Brain Dev. 2017 Sep;39(8):722. doi: 10.1016/j.braindev.2017.04.009. Epub 2017 May 3. No abstract available.

and (see above article):

Reply to: Early hypoperfusion on arterial spin labelling may be a diagnostic marker for acute encephalopathy with biphasic seizures and late reduced diffusion.

Kuya K, Fujii S, Ogawa T.

Brain Dev. 2017 Sep;39(8):723. doi: 10.1016/j.braindev.2017.03.028. Epub 2017 Apr 25. No abstract available.

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. 2017 Sep 1;43(5):972-981. doi: 10.1093/schbul/sbw140.

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

new

Cerebral blood flow velocity positively correlates with brain volumes in long-term remitted depression.

Desmidt T, Andersson F, Brizard B, Cottier JP, Patat F, Gissot V, Belzung C, El-Hage W, Camus V.

Prog Neuropsychopharmacol Biol Psychiatry. 2017 Sep 20. pii: S0278-5846(17)30250-6. doi: 10.1016/j.pnpbp.2017.09.018. [Epub ahead of print]

new

Perfusion MR imaging of enhancing brain tumors: Comparison of arterial spin labeling technique with dynamic susceptibility contrast technique.

Soni N, Dhanota DPS, Kumar S, Jaiswal AK, Srivastava AK.

Neurol India. 2017 Sep-Oct;65(5):1046-1052. doi: 10.4103/neuroindia.NI_871_16.

[Free Article](#)

new

Long-Delay Arterial Spin Labeling Provides More Accurate Cerebral Blood Flow Measurements in Moyamoya Patients: A Simultaneous Positron Emission Tomography/MRI Study.

Fan AP, Guo J, Khalighi MM, Gulaka PK, Shen B, Park JH, Gandhi H, Holley D, Rutledge O, Singh P, Haywood T, Steinberg GK, Chin FT, Zaharchuk G.

Stroke. 2017 Sep;48(9):2441-2449. doi: 10.1161/STROKEAHA.117.017773. Epub 2017 Aug 1.

Resting state hypothalamic response to glucose predicts glucose-induced attenuation in the ventral striatal response to food cues.

Luo S, Melrose AJ, Dorton H, Alves J, Monterosso JR, Page KA.

Appetite. 2017 Sep 1;116:464-470. doi: 10.1016/j.appet.2017.05.038. Epub 2017 May 25.

Functional Imaging / BOLD

new

Increased left prefrontal brain perfusion after MRI compatible tDCS attenuates momentary ruminative self-referential thoughts.

Baeken C, Remue J, Vanderhasselt MA, Brunoni AR, De Witte S, Duprat R, Koster EHW, De Raedt R, Wu GR.

Brain Stimul. 2017 Sep 6. pii: S1935-861X(17)30897-5. doi: 10.1016/j.brs.2017.09.005. [Epub ahead of print]

new

Dual-echo ASL contributes to decrypting the link between functional connectivity and cerebral blood flow.

Storti SF, Boscolo Galazzo I, Montemezzi S, Menegaz G, Pizzini FB.

Hum Brain Mapp. 2017 Sep 8. doi: 10.1002/hbm.23804. [Epub ahead of print]

new

Dual-echo ASL based assessment of motor networks: a feasibility study.

Storti SF, Boscolo Galazzo I, Pizzini FB, Menegaz G.

J Neural Eng. 2017 Sep 8. doi: 10.1088/1741-2552/aa8b27. [Epub ahead of print]

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Others CBF Related

new

Simultaneous acquisition of perfusion image and dynamic MR angiography using time-encoded pseudo-continuous ASL.

Suzuki Y, Helle M, Koken P, Van Cauteren M, van Osch MJP.

Magn Reson Med. 2017 Sep 14. doi: 10.1002/mrm.26926. [Epub ahead of print]

Physiological Parameters besides CBF

new

The Brain Thermal Response as a Potential Neuroimaging Biomarker of Cerebrovascular Impairment.

Fleischer CC, Wu J, Qiu D, Park SE, Nahab F, Dehkharghani S.

AJNR Am J Neuroradiol. 2017 Sep 21. doi: 10.3174/ajnr.A5380. [Epub ahead of print]

new

Positron Emission Tomographic Imaging Elucidates the Complex Relationship Between Glucose Uptake and Tissue Blood Flow Mechanism in Squamous Cell Oral Cancer Patients.

Xu P, Li Y, Yang S, Li M, Li C.

Med Sci Monit. 2017 Sep 21;23:4533-4540.

ASL for Angiography

new

Non contrast, Pseudo-Continuous Arterial Spin Labeling and Accelerated 3-Dimensional Radial Acquisition Intracranial 3-Dimensional Magnetic Resonance Angiography for the Detection and Classification of Intracranial Arteriovenous Shunts.

Schubert T, Clark Z, Sandoval-Garcia C, Zea R, Wieben O, Wu H, Turski PA, Johnson KM. Invest Radiol. 2017 Sep 20. doi: 10.1097/RLI.0000000000000411. [Epub ahead of print]

new

Acceleration-selective Arterial Spin-labeling MR Angiography Used to Visualize Distal Cerebral Arteries and Collateral Vessels in Moyamoya Disease.

Togao O, Hiwatashi A, Obara M, Yamashita K, Kikuchi K, Kamei R, Nishimura A, Arimura K, Yoshimoto K, Iihara K, Van Cauteren M, Honda H. Radiology. 2017 Sep 15:162279. doi: 10.1148/radiol.2017162279. [Epub ahead of print]

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Simultaneous acquisition of perfusion image and dynamic MR angiography using time-encoded pseudo-continuous ASL.

Suzuki Y, Helle M, Koken P, Van Cauteren M, van Osch MJP. Magn Reson Med. 2017 Sep 14. doi: 10.1002/mrm.26926. [Epub ahead of print]

ASL in Kidneys

new

Multiparametric Renal Magnetic Resonance Imaging: Validation, Interventions, and Alterations in Chronic Kidney Disease.

Cox EF, Buchanan CE, Bradley CR, Prestwich B, Mahmoud H, Taal M, Selby NM, Francis ST. Front Physiol. 2017 Sep 14;8:696. doi: 10.3389/fphys.2017.00696. eCollection 2017. [Free PMC Article](#)

Quantification of Mouse Renal Perfusion Using Arterial Spin Labeled MRI at 1 T.

Do QN, Madhuranthakam AJ, Bendel P, Lenkinski RE. Acad Radiol. 2017 Sep;24(9):1079-1085. doi: 10.1016/j.acra.2017.04.001. Epub 2017 May 8.

Measurement of arterial transit time and renal blood flow using pseudocontinuous ASL MRI with multiple post-labeling delays: Feasibility, reproducibility, and variation.

Kim DW, Shim WH, Yoon SK, Oh JY, Kim JK, Jung H, Matsuda T, Kim D. J Magn Reson Imaging. 2017 Sep;46(3):813-819. doi: 10.1002/jmri.25634. Epub 2017 Jan 16.

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

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Schubert T, Clark Z, Sandoval-Garcia C, Zea R, Wieben O, Wu H, Turski PA, Johnson KM. Invest Radiol. 2017 Sep 20. doi: 10.1097/RLI.0000000000000411. [Epub ahead of print]

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

new

[A systematic study of the sensitivity of partial volume correction methods for the quantification of perfusion from pseudo-continuous arterial spin labeling MRI.](#)

Zhao MY, Mezue M, Segerdahl AR, Okell TW, Tracey I, Xiao Y, Chappell MA.

Neuroimage. 2017 Sep 5. pii: S1053-8119(17)30710-3. doi: 10.1016/j.neuroimage.2017.08.072. [Epub ahead of print]

[Benchmarking transverse spin relaxation based oxygenation measurements in the brain during hypercapnia and hypoxia.](#)

Ni WW, Christen T, Zaharchuk G.

J Magn Reson Imaging. 2017 Sep;46(3):704-714. doi: 10.1002/jmri.25582. Epub 2017 Mar 17.

[The spatial coefficient of variation in arterial spin labeling cerebral blood flow images.](#)

Mutsaerts HJ, Petr J, Václavů L, van Dalen JW, Robertson AD, Caan MW, Masellis M, Nederveen AJ, Richard E, MacIntosh BJ.

J Cereb Blood Flow Metab. 2017 Sep;37(9):3184-3192. doi: 10.1177/0271678X16683690. Epub 2017 Jan 6.

[Investigation of control scans in pseudo-continuous arterial spin labeling \(pCASL\): Strategies for improving sensitivity and reliability of pCASL.](#)

Han PK, Choi SH, Park SH.

Magn Reson Med. 2017 Sep;78(3):917-929. doi: 10.1002/mrm.26474. Epub 2016 Sep 30.

Technical Improvement / Parameter Optimization

new

Sequential changes of arterial spin-labeling perfusion MR images with dual postlabeling delay following reconstructive surgery for giant internal carotid artery aneurysm.

Shimogawa T, Morioka T, Akiyama T, Haga S, Arakawa S, Sayama T.

Surg Neurol Int. 2017 Sep 7;8:222. doi: 10.4103/sni.sni_73_17. eCollection 2017.

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Simultaneous acquisition of perfusion image and dynamic MR angiography using time-encoded pseudo-continuous ASL.

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Hum Brain Mapp. 2017 Sep 8. doi: 10.1002/hbm.23804. [Epub ahead of print]

new

Reduced distortion artifact whole brain CBF mapping using blip-reversed non-segmented 3D echo planar imaging with pseudo-continuous arterial spin labeling.

Gai ND, Chou YY, Pham D, Butman JA.

Magn Reson Imaging. 2017 Sep 1;44:119-124. doi: 10.1016/j.mri.2017.08.011. [Epub ahead of print]

Benchmarking transverse spin relaxation based oxygenation measurements in the brain during hypercapnia and hypoxia.

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Investigation of control scans in pseudo-continuous arterial spin labeling (pCASL): Strategies for improving sensitivity and reliability of pCASL.

Han PK, Choi SH, Park SH.

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Case Reports

new

Spontaneous Hemorrhagic Glioblastoma revealed by Arterial Spin Labeling.

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World Neurosurg. 2017 Sep 14. pii: S1878-8750(17)31536-X. doi: 10.1016/j.wneu.2017.09.029. [Epub ahead of print]

Reproducibility Studies

new

Test-retest reliability of 3D spiral fast-spin-echo pseudo-continuous arterial spin labeling for cerebral perfusion imaging of subcortical gray matter in healthy adults.

Liu MQ, Chen ZY, Ma L.

Nan Fang Yi Ke Da Xue Xue Bao. 2017 Sep 20;37(9):1242-1247. Chinese.

new

Reproducibility of quantitative structural and physiological MRI measurements.

McGuire SA, Wijtenburg SA, Sherman PM, Rowland LM, Ryan M, Sladky JH, Kochunov PV. Brain Behav. 2017 Aug 2;7(9):e00759. doi: 10.1002/brb3.759. eCollection 2017 Sep.

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new

Test-retest reliability of cerebral blood flow in healthy individuals using arterial spin labeling: Findings from the EMBARC study.

Almeida JRC, Greenberg T, Lu H, Chase HW, Fournier J, Cooper CM, Deckersbach T, Adams P, Carmody T, Fava M, Kurian B, McGrath PJ, McInnis MG, Oquendo MA, Parsey R, Weissman M, Trivedi M, Phillips ML.

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Others

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AJNR Am J Neuroradiol. 2017 Sep 21. doi: 10.3174/ajnr.A5380. [Epub ahead of print]

Review Paper / Historical Review / Guidelines

new

Arterial spin labelling: A novel promising perfusion technique - Can it be a replacement to dynamic susceptibility contrast MRI ?

Pungavkar SA, Yanamandala R.

Neurol India. 2017 Sep-Oct;65(5):979-981. doi: 10.4103/neuroindia.NI_732_17. No abstract available.

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new

Can arterial spin labelling really replace dynamic susceptibility contrast perfusion techniques for assessing brain tumours in clinical practice?

Patel MD, Sawlani V.

Neurol India. 2017 Sep-Oct;65(5):977-978. doi: 10.4103/neuroindia.NI_727_17. No abstract available.

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Job Offerings & Featured Articles

- If you have any vacancies please send them to jobsATasl-network.org
- If you would like to write a comment on an interesting article mail it to editorATasl-network.org