

Dear Colleagues,

back from the summer break, we would like to give you an overview of recent publications in the ASL Newsletter No. 87.

As you might be looking for some autumn activities, you should check out the [ESMRMB](#) and [ISMRM](#) educational offers and workshops. For people from Germany, the [DGMP and ISMRM German Chapter](#) meeting in Nuernberg could be a chance to get some updates on MRI and ASL.

Kind regards,  
Klaus

## Recent publications July & August 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 .....	5
Others CBF Related.....	5
ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data Corrections/ Postprocessing .....	6
ASL at Field Strength > 3T .....	6
Cohort Studies / Gender- and Age Dependencies .....	7
Pharmacological / Drug Studies / Studies on the Effects of Therapies .....	8

Screening / Prognosis / Prevention .....	8
Technical Improvement / Parameter Optimization .....	9
Reproducibility Studies .....	9
Animal Studies .....	9
ASL in Kidneys .....	10
Review Paper / Historical Review / Guidelines .....	10
Job Offerings & Featured Articles .....	11

## Cerebral Blood Flow Studies

### CBF Regional Comparison / Regional ASL

*new*

#### Decreased cerebral blood flow and improved cognitive function in patients with end-stage renal disease after peritoneal dialysis: An arterial spin-labelling study.

Cheng BC, Chen PC, Chen PC, Lu CH, Huang YC, Chou KH, Li SH, Lin AN, Lin WC.  
Eur Radiol. 2018 Aug 13. doi: 10.1007/s00330-018-5675-9. [Epub ahead of print]

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#### Hemilaterally masked arterial spin labeling by intentional magnetic field changes in the labeling area due to placement of material with high susceptibility.

Hagiwara H, Nakajima Y, Ikegami T, Kinno Y, Kumada M.  
PLoS One. 2018 Jul 12;13(7):e0200648. doi: 10.1371/journal.pone.0200648. eCollection 2018.  
[Free PMC Article](#)

### Studies on Special Disease

*new*

#### Arterial spin-labeling perfusion imaging of childhood encephalitis: correlation with seizure and clinical outcome.

Wong AM, Yeh CH, Lin JJ, Liu HL, Chou IJ, Lin KL, Wang HS.  
Neuroradiology. 2018 Sep;60(9):961-970. doi: 10.1007/s00234-018-2062-9. Epub 2018 Jul 25.

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McQueen G, Lally J, Collier T, Zelaya F, Lythgoe DJ, Barker GJ, Stone JM, McGuire P, MacCabe JH, Egerton A.  
Psychopharmacology (Berl). 2018 Aug 23. doi: 10.1007/s00213-018-4997-2. [Epub ahead of print]

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**Significance of arterial spin labeling perfusion and susceptibility weighted imaging changes in patients with transient ischemic attack: a prospective cohort study.**

Havsteen I, Willer L, Ovesen C, Nybing JD, Ægidius K, Marstrand J, Meden P, Rosenbaum S, Folke MN, Christensen H, Christensen A.

BMC Med Imaging. 2018 Aug 20;18(1):24. doi: 10.1186/s12880-018-0264-6.

[Free PMC Article](#)

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Brain Res. 2018 Aug 2. pii: S0006-8993(18)30415-3. doi: 10.1016/j.brainres.2018.08.001. [Epub ahead of print]

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Delgado AF, De Luca F, Hanagandi P, van Westen D, Delgado AF.

AJNR Am J Neuroradiol. 2018 Aug;39(8):1536-1542. doi: 10.3174/ajnr.A5727. Epub 2018 Aug 2.

*new*

**Pseudo-continuous arterial spin labeling MR images in Warthin tumors and pleomorphic adenomas of the parotid gland: qualitative and quantitative analyses and their correlation with histopathologic and DWI and dynamic contrast enhanced MRI findings.**

Yamamoto T, Kimura H, Hayashi K, Imamura Y, Mori M.

Neuroradiology. 2018 Aug;60(8):803-812. doi: 10.1007/s00234-018-2046-9. Epub 2018 Jul 2.

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**Silent infarcts in sickle cell anemia occur in the borderzone region and are associated with low cerebral blood flow.**

Ford AL, Ragan DK, Fellah S, Binkley MM, Fields ME, Guilliams KP, An H, Jordan LC, McKinstry RC, Lee JM, DeBaun MR.

Blood. 2018 Jul 30. pii: blood-2018-04-841247. doi: 10.1182/blood-2018-04-841247. [Epub ahead of print]

*new*

**Lower cerebral vasoreactivity as a predictor of gait speed decline in type 2 diabetes mellitus.**

Chung CC, Pimentel Maldonado DA, Jor'dan AJ, Alfaro FJ, Lioutas VA, Núñez MZ, Novak V.

J Neurol. 2018 Jul 30. doi: 10.1007/s00415-018-8981-x. [Epub ahead of print]

*new*

**Ketotic hyperglycemia-related seizure with reversible white matter lesion: Metabolic implication of its reversibility based on magnetic resonance spectroscopy study.**

Kodama S, Mano T, Kakumoto T, Ishiura H, Hagiwara A, Kamiya K, Hayashi T, Tsuji S. J Neurol Sci. 2018 Jul 15;390:20-21. doi: 10.1016/j.jns.2018.04.006. Epub 2018 Apr 6. No abstract available.

*new*

**Crossed cerebellar hyperperfusion in patients with seizure-related cerebral cortical lesions: an evaluation with arterial spin labelling perfusion MR imaging.**

Won J, Choi DS, Hong SJ, Shin HS, Baek HJ, Choi HC, Kim M, Kim RB. Radiol Med. 2018 Jul 13. doi: 10.1007/s11547-018-0921-4. [Epub ahead of print]

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**Striatal cerebral blood flow, executive functioning, and fronto-striatal functional connectivity in clinical high risk for psychosis.**

Hubl D, Schultze-Lutter F, Hauf M, Dierks T, Federspiel A, Kaess M, Michel C, Schimmelmann BG, Kindler J. Schizophr Res. 2018 Jul 5. pii: S0920-9964(18)30351-7. doi: 10.1016/j.schres.2018.06.018. [Epub ahead of print]

*new*

**Flow-metabolism uncoupling in patients with asymptomatic unilateral carotid artery stenosis assessed by multi-modal magnetic resonance imaging.**

Göttler J, Kaczmarz S, Kallmayer M, Wustrow I, Eckstein HH, Zimmer C, Sorg C, Preibisch C, Hyder F. J Cereb Blood Flow Metab. 2018 Jul 3:271678X18783369. doi: 10.1177/0271678X18783369. [Epub ahead of print]

*new*

**Intracranial compliance is associated with symptoms of orthostatic intolerance in chronic fatigue syndrome.**

Finkelmeyer A, He J, Maclachlan L, Blamire AM, Newton JL. PLoS One. 2018 Jul 3;13(7):e0200068. doi: 10.1371/journal.pone.0200068. eCollection 2018. [Free PMC Article](#)

*new*

**Non-contrast assessment of microvascular integrity using arterial spin labeled cardiovascular magnetic resonance in a porcine model of acute myocardial infarction.**

Do HP, Ramanan V, Qi X, Barry J, Wright GA, Ghugre NR, Nayak KS. J Cardiovasc Magn Reson. 2018 Jul 2;20(1):45. doi: 10.1186/s12968-018-0468-5. [Free PMC Article](#)

*new*

**Resting cerebral blood flow alterations specific to the comitant exophoria patients revealed by arterial spin labeling perfusion magnetic resonance imaging.**

Huang X, Zhou S, Su T, Ye L, Zhu PW, Shi WQ, Min YL, Yuan Q, Yang QC, Zhou FQ, Shao Y. *Microvasc Res.* 2018 Jul 2;120:67-73. doi: 10.1016/j.mvr.2018.06.007. [Epub ahead of print]

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

*new*

**Multifaceted Assessment of the APP/PS1 Mouse Model for Alzheimer's disease: Applying MRS, DTI, and ASL.**

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*Brain Res.* 2018 Aug 2. pii: S0006-8993(18)30415-3. doi: 10.1016/j.brainres.2018.08.001. [Epub ahead of print]

*new*

**Noninvasive method for measurement of cerebral blood flow using O-15 water PET/MRI with ASL correlation.**

Okazawa H, Higashino Y, Tsujikawa T, Arishima H, Mori T, Kiyono Y, Kimura H, Kikuta KI. *Eur J Radiol.* 2018 Aug;105:102-109. doi: 10.1016/j.ejrad.2018.05.033. Epub 2018 Jun 1.

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*J Cereb Blood Flow Metab.* 2018 Jul 3;271678X18783369. doi: 10.1177/0271678X18783369. [Epub ahead of print]

## Others CBF Related

*new*

**Differential Associations of Diastolic and Systolic Pressures with Cerebral Measures in Older Individuals with Mild Cognitive Impairment.**

Shokouhi M, Qiu D, Samman Tahhan A, Quyyumi AA, Hajjar I.

*Am J Hypertens.* 2018 Jul 25. doi: 10.1093/ajh/hpy104. [Epub ahead of print]

*new*

**Higher Aortic Stiffness is Related to Lower Cerebral Blood Flow and Preserved Cerebrovascular Reactivity in Older Adults.**

Jefferson AL, Cambronero FE, Liu D, Moore EE, Neal JE, Terry JG, Nair S, Pechman KR, Rane S, Davis LT, Gifford KA, Hohman TJ, Bell SP, Wang TJ, Beckman JA, Carr JJ.

Circulation. 2018 Jul 17. pii: CIRCULATIONAHA.118.032410. doi:

10.1161/CIRCULATIONAHA.118.032410. [Epub ahead of print]

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

*new*

**Spatially adaptive unsupervised multispectral nonlocal filtering for improved cerebral blood flow mapping using arterial spin labeling magnetic resonance imaging.**

Bouhrara M, Lee DY, Rejimon AC, Bergeron CM, Spencer RG.

J Neurosci Methods. 2018 Aug 18. pii: S0165-0270(18)30253-X. doi:

10.1016/j.jneumeth.2018.08.018. [Epub ahead of print]

*new*

**Improved perfusion pattern score association with type 2 diabetes severity using machine learning pipeline: Pilot study.**

Chen Y, Duan W, Sehrawat P, Chauhan V, Alfaro FJ, Gavrieli A, Qiao X, Novak V, Dai W.

J Magn Reson Imaging. 2018 Aug 5. doi: 10.1002/jmri.26256. [Epub ahead of print]

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**Brain Perfusion Measurements Using Multidelayer Arterial Spin-Labeling Are Systematically Biased by the Number of Delays.**

van der Thiel M, Rodriguez C, Giannakopoulos P, Burke MX, Lebel RM, Gninenko N, Van De Ville D, Haller S.

AJNR Am J Neuroradiol. 2018 Aug;39(8):1432-1438. doi: 10.3174/ajnr.A5717. Epub 2018 Jul 5.

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# Cohort Studies / Gender- and Age Dependencies

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10.1161/CIRCULATIONAHA.118.032410. [Epub ahead of print]

*new*

[The Age-Related Perfusion Pattern Measured With Arterial Spin Labeling MRI in Healthy Subjects.](#)

Zhang N, Gordon ML, Ma Y, Chi B, Gomar JJ, Peng S, Kingsley PB, Eidelberg D, Goldberg TE. Front Aging Neurosci. 2018 Jul 17;10:214. doi: 10.3389/fnagi.2018.00214. eCollection 2018.

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## Pharmacological / Drug Studies / Studies on the Effects of Therapies

*new*

### Cerebrovascular reactivity and cerebral perfusion of rats with acute liver failure: role of L-glutamine and asymmetric dimethylarginine in L-arginine-induced response.

Czarnecka A, Aleksandrowicz M, Jasiński K, Jaźwiec R, Kalita K, Hilgier W, Zielińska M. J Neurochem. 2018 Aug 27. doi: 10.1111/jnc.14578. [Epub ahead of print]

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## Screening / Prognosis / Prevention

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## Technical Improvement / Parameter Optimization

*new*

### Combined angiography and perfusion using radial imaging and arterial spin labeling.

Okell TW.

Magn Reson Med. 2018 Jul 19. doi: 10.1002/mrm.27366. [Epub ahead of print]

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### Hemilaterally masked arterial spin labeling by intentional magnetic field changes in the labeling area due to placement of material with high susceptibility.

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## Reproducibility Studies

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### Motion-corrected multiparametric renal arterial spin labelling at 3 T: reproducibility and effect of vasodilator challenge.

Shirvani S, Tokarczuk P, Statton B, Quinlan M, Berry A, Tomlinson J, Weale P, Kühn B, O'Regan DP.

Eur Radiol. 2018 Jul 10. doi: 10.1007/s00330-018-5628-3. [Epub ahead of print]

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Eur Radiol. 2018 Jul 10. doi: 10.1007/s00330-018-5628-3. [Epub ahead of print]

## **Review Paper / Historical Review / Guidelines**

*new*

[Long-term Neuroimaging Findings in American Football Players: Systematic Review.](#)

Legarreta AD, Monk SH, Kirby PW, Brett BL, Yengo-Kahn AM, Bhatia A, Solomon GS, Zuckerman SL.

World Neurosurg. 2018 Aug 22. pii: S1878-8750(18)31862-X. doi: 10.1016/j.wneu.2018.08.079. [Epub ahead of print]

*new*

[Magnetic resonance imaging in Alzheimer's disease and mild cognitive impairment.](#)

Chandra A, Dervenoulas G, Politis M; Alzheimer's Disease Neuroimaging Initiative.

J Neurol. 2018 Aug 17. doi: 10.1007/s00415-018-9016-3. [Epub ahead of print] Review.

*new*

[Renal Functional MRI and Its Application.](#)

Zhou JY, Wang YC, Zeng CH, Ju SH.

J Magn Reson Imaging. 2018 Aug 13. doi: 10.1002/jmri.26180. [Epub ahead of print]

*new*

[Cerebral blood flow in bipolar disorder: A systematic review.](#)

Toma S, MacIntosh BJ, Swardfager W, Goldstein BI.

J Affect Disord. 2018 Aug 11;241:505-513. doi: 10.1016/j.jad.2018.08.040. [Epub ahead of print] Review.

*new*

[Big data and artificial intelligence for diagnostic decision support in atypical dementia.](#)

Egger K, Rijntjes M.

Nervenarzt. 2018 Aug;89(8):875-884. doi: 10.1007/s00115-018-0568-3. Review. German.

*new*

**Arterial spin labeling: Clinical applications.**

Ho ML.

J Neuroradiol. 2018 Jul 27. pii: S0150-9861(17)30227-4. doi: 10.1016/j.neurad.2018.06.003.  
[Epub ahead of print] 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).