

Dear Colleagues,

Please find below the ASL Newsletter No. 67 for the last two months.  
After the summer break I try to change to the monthly newsletter routine again.  
This newsletter might have double entries in some sections since I was lost in the  
pubmed-search for some reasons ;-)

If you are looking for a job, you might find some offers on our ASL-Network homepage.

Enjoy the news on ASL!  
Kind regards,  
Klaus

## Recent publications August & September 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.

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## Animal Studies

*new*

### **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 Aug 29. doi: 10.1111/acer.13175. [Epub ahead of print]

*new*

### **Substantial Reduction of Parenchymal Cerebral Blood Flow in Mice with Bilateral Common Carotid Artery Stenosis.**

Hattori Y, Enmi J, Iguchi S, Saito S, Yamamoto Y, Nagatsuka K, Iida H, Ihara M.

Sci Rep. 2016 Aug 18;6:32179. doi: 10.1038/srep32179.

[Free PMC Article](#)

*new*

### **Neurovascular unit remodelling in the subacute stage of stroke recovery.**

Lake EM, Bazzigaluppi P, Mester J, Thomason LA, Janik R, Brown M, McLaurin J, Carlen PL, Corbett D, Stanis GJ, Stefanovic B.

Neuroimage. 2016 Sep 21. pii: S1053-8119(16)30480-3. doi: 10.1016/j.neuroimage.2016.09.016.

[Epub ahead of print]

*new*

### **OS 21-02 CONNECTING TUBULE-GLOMERULAR FEEDBACK (CTGF) IN RENAL HEMODYNAMICS AND BLOOD PRESSURE REGULATION AFTER UNILATERAL NEPHRECTOMY (UNx).**

Romero C, Monu S, Cabral G, Knight R, Carretero O.

J Hypertens. 2016 Sep;34 Suppl 1:e235. doi: 10.1097/01.hjh.0000500521.58587.86.

### **Antiangiogenic Effect of Bevacizumab: Application of Arterial Spin-Labeling Perfusion MR Imaging in a Rat Glioblastoma Model.**

Yun TJ, Cho HR, Choi SH, Kim H, Won JK, Park SW, Kim JH, Sohn CH, Han MH.  
AJNR Am J Neuroradiol. 2016 Sep;37(9):1650-6. doi: 10.3174/ajnr.A4800. Epub 2016 May 12.

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

*new*

### Assessment of Cerebral Blood Perfusion Reserve with Acetazolamide Using 3D Spiral ASL MRI: Preliminary Experience in Pediatric Patients.

Hu HH, Li Z, Pokorney AL, Chia JM, Stefani N, Pipe JG, Miller JH.  
Magn Reson Imaging. 2016 Aug 28. pii: S0730-725X(16)30124-2. doi: 10.1016/j.mri.2016.08.019. [Epub ahead of print]

*new*

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

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### Cerebral Perfusion changes in Post-Concussion Syndrome: A prospective controlled cohort study.

Barlow K, Marcil LD, Carlson HL, Dewey D, MacMaster FP, Brooks BL, Lebel M.  
J Neurotrauma. 2016 Aug 23. [Epub ahead of print]

*new*

### 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 Aug 19. pii: 1971400916665375. [Epub ahead of print]

*new*

### Modafinil In Debilitating fatigue After Stroke (MIDAS): study protocol for a randomised, double-blinded, placebo-controlled, crossover trial.

Lillicrap T, Krishnamurthy V, Attia J, Nilsson M, Levi CR, Parsons MW, Bivard A.  
Trials. 2016 Aug 17;17(1):410. doi: 10.1186/s13063-016-1537-4.  
[Free PMC Article](#)

*new*

### Baseline Perfusion Alterations Due to Acute Application of Quetiapine and Pramipexole in

### **Healthy Adults.**

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

Int J Neuropsychopharmacol. 2016 Aug 22. pii: pyw067. doi: 10.1093/ijnp/pyw067. [Epub ahead of print]

[Free Article](#)

*new*

### **CBT reduces CBF: cognitive-behavioral therapy reduces cerebral blood flow in fear-relevant brain regions in spider phobia.**

Soravia LM, Orosz A, Schwab S, Nakataki M, Wiest R, Federspiel A.

Brain Behav. 2016 Jul 6;6(9):e00510. eCollection 2016 Sep.

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### **A hypo-status in drug-dependent brain revealed by multi-modal MRI.**

Wang Z, Suh J, Duan D, Darnley S, Jing Y, Zhang J, O'Brien C, Childress AR.

Addict Biol. 2016 Sep 22. doi: 10.1111/adb.12459. [Epub ahead of print]

### **Aerobic fitness is associated with greater hippocampal cerebral blood flow in children.**

Chaddock-Heyman L, Erickson KI, Chappell MA, Johnson CL, Kienzler C, Knecht A, Drollette ES, Raine LB, Scudder MR, Kao SC, Hillman CH, Kramer AF.

Dev Cogn Neurosci. 2016 Aug;20:52-8. doi: 10.1016/j.dcn.2016.07.001. Epub 2016 Jul 4.

### **Atomoxetine restores the response inhibition network in Parkinson's disease.**

Rae CL, Nombela C, Rodríguez PV, Ye Z, Hughes LE, Jones PS, Ham T, Rittman T, Coyle-Gilchrist I, Regenthal R, Sahakian BJ, Barker RA, Robbins TW, Rowe JB.

Brain. 2016 Aug;139(Pt 8):2235-48. doi: 10.1093/brain/aww138. Epub 2016 Jun 24.

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AJNR Am J Neuroradiol. 2016 Sep;37(9):1650-6. doi: 10.3174/ajnr.A4800. Epub 2016 May 12.

## **Cerebral Blood Flow Studies**

### **CBF Regional Comparison / Regional ASL**

*new*

### **Cerebral Perfusion changes in Post-Concussion Syndrome: A prospective controlled cohort study.**

Barlow K, Marcil LD, Carlson HL, Dewey D, MacMaster FP, Brooks BL, Lebel M.

J Neurotrauma. 2016 Aug 23. [Epub ahead of print]

*new*

### **Influence of Vascular Variant of the Posterior Cerebral Artery (PCA) on Cerebral Blood**

**Flow, Vascular Response to CO2 and Static Functional Connectivity.**

Emmert K, Zöllner D, Preti MG, Van De Ville D, Giannakopoulos P, Haller S.

PLoS One. 2016 Aug 17;11(8):e0161121. doi: 10.1371/journal.pone.0161121. eCollection 2016.

[Free PMC Article](#)

*new*

**The role of cerebral blood flow gradient in peritumoral edema for differentiation of glioblastomas from solitary metastatic lesions.**

Lin L, Xue Y, Duan Q, Sun B, Lin H, Huang X, Chen X.

Oncotarget. 2016 Sep 15. doi: 10.18632/oncotarget.12053. [Epub ahead of print]

[Free Article](#)

*new*

**A hypo-status in drug-dependent brain revealed by multi-modal MRI.**

Wang Z, Suh J, Duan D, Darnley S, Jing Y, Zhang J, O'Brien C, Childress AR.

Addict Biol. 2016 Sep 22. doi: 10.1111/adb.12459. [Epub ahead of print]

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**Combined Diffusion Tensor Imaging and Arterial Spin Labeling as Markers of Early Parkinson's disease.**

Wei X, Yan R, Chen Z, Weng R, Liu X, Gao H, Xu X, Kang Z, Liu Z, Guo Y, Liu Z, Larsen JP, Wang J, Tang B, Hallett M, Wang Q.

Sci Rep. 2016 Sep 20;6:33762. doi: 10.1038/srep33762.

[Free PMC Article](#)

**Implication of cerebral circulation time in intracranial stenosis measured by digital subtraction angiography on cerebral blood flow estimation measured by arterial spin labeling.**

Jann K, Hauf M, Kellner Weldon F, El Koussy M, Kiefer C, Federspiel A, Schroth G.

Diagn Interv Radiol. 2016 Sep-Oct;22(5):481-8. doi: 10.5152/dir.2016.15204.

[Free PMC Article](#)

## Studies on Special Disease

*new*

**Structural Correlation-based Outlier Rejection (SCORE) algorithm for arterial spin labeling time series.**

Dolui S, Wang Z, Shinohara RT, Wolk DA, Detre JA; Alzheimer's Disease Neuroimaging Initiative.

J Magn Reson Imaging. 2016 Aug 29. doi: 10.1002/jmri.25436. [Epub ahead of print]

*new*

**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 R, Chen H, Savransky A, Du X, Wang DJ, Kochunov P, Hong LE, Rowland LM. Neuropsychopharmacology. 2016 Aug 26. doi: 10.1038/npp.2016.172. [Epub ahead of print]

*new*

**Improving the Grading Accuracy of Astrocytic Neoplasms Noninvasively by Combining Timing Information with Cerebral Blood Flow: A Multi-TI Arterial Spin-Labeling MR Imaging Study.**

Yang S, Zhao B, Wang G, Xiang J, Xu S, Liu Y, Zhao P, Pfeuffer J, Qian T. AJNR Am J Neuroradiol. 2016 Aug 25. [Epub ahead of print]

*new*

**Cerebral Perfusion changes in Post-Concussion Syndrome: A prospective controlled cohort study.**

Barlow K, Marcil LD, Carlson HL, Dewey D, MacMaster FP, Brooks BL, Lebel M. J Neurotrauma. 2016 Aug 23. [Epub ahead of print]

*new*

**Feasibility of non-contrast-enhanced four dimensional (4D) MRA in head and neck tumors, comparison with contrast-enhanced 4D MRA.**

Sakai M, Illies T, Jerusel N, Tateishi S, Uchikoshi M, Fiehler J, Watanabe Y, Nakanishi K, Tomiyama N. Springerplus. 2016 Aug 8;5(1):1282. doi: 10.1186/s40064-016-2953-3. eCollection 2016. [Free PMC Article](#)

*new*

**Suspected stroke in a pregnant woman: Usefulness of arterial spin labeling MRI sequences.**

Grangeon L, Macaigne V, Ozkul-Wermester O, Guégan-Massardier E, Lefaucœur R. Presse Med. 2016 Aug 17. pii: S0755-4982(16)30199-3. doi: 10.1016/j.lpm.2016.06.030. [Epub ahead of print] No abstract available.

*new*

**Influence of Vascular Variant of the Posterior Cerebral Artery (PCA) on Cerebral Blood Flow, Vascular Response to CO<sub>2</sub> and Static Functional Connectivity.**

Emmert K, Zöllner D, Preti MG, Van De Ville D, Giannakopoulos P, Haller S. PLoS One. 2016 Aug 17;11(8):e0161121. doi: 10.1371/journal.pone.0161121. eCollection 2016. [Free PMC Article](#)

*new*

**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. Epub 2016 Aug 6.

*new*

**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. Epub 2016 Aug 6.

*new*

**Insulin resistance is associated with lower arterial blood flow and reduced cortical perfusion in cognitively asymptomatic middle-aged adults.**

Hoscheidt SM, Kellawan JM, Berman SE, Rivera-Rivera LA, Krause RA, Oh JM, Beerl MS, Rowley HA, Wieben O, Carlsson CM, Asthana S, Johnson SC, Schrage WG, Bendlin BB.

J Cereb Blood Flow Metab. 2016 Aug 3. pii: 0271678X16663214. [Epub ahead of print]

*new*

**Comparison of Quantitative Cerebral Blood Flow Measurements Performed by Bookend Dynamic Susceptibility Contrast and Arterial Spin-Labeling MRI in Relapsing-Remitting Multiple Sclerosis.**

D'Ortenzio RM, Hojjat SP, Vitorino R, Cantrell CG, Lee L, Feinstein A, O'Connor P, Carroll TJ, Aviv RI.

AJNR Am J Neuroradiol. 2016 Sep 29. [Epub ahead of print]

*new*

**Fifty years of brain imaging in neonatal encephalopathy following perinatal asphyxia.**

Groenendaal F, de Vries LS.

Pediatr Res. 2016 Sep 27. doi: 10.1038/pr.2016.195. [Epub ahead of print] Review.

*new*

**A hypo-status in drug-dependent brain revealed by multi-modal MRI.**

Wang Z, Suh J, Duan D, Darnley S, Jing Y, Zhang J, O'Brien C, Childress AR.

Addict Biol. 2016 Sep 22. doi: 10.1111/adb.12459. [Epub ahead of print]

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**Combined Diffusion Tensor Imaging and Arterial Spin Labeling as Markers of Early Parkinson's disease.**

Wei X, Yan R, Chen Z, Weng R, Liu X, Gao H, Xu X, Kang Z, Liu Z, Guo Y, Liu Z, Larsen JP, Wang J, Tang B, Hallett M, Wang Q.

Sci Rep. 2016 Sep 20;6:33762. doi: 10.1038/srep33762.

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**Implication of cerebral circulation time in intracranial stenosis measured by digital subtraction angiography on cerebral blood flow estimation measured by arterial spin labeling.**

Jann K, Hauf M, Kellner Weldon F, El Koussy M, Kiefer C, Federspiel A, Schroth G.

Diagn Interv Radiol. 2016 Sep-Oct;22(5):481-8. doi: 10.5152/dir.2016.15204.

[Free PMC Article](#)

*new*

**Comparison between dynamic susceptibility contrast magnetic resonance imaging and**

**arterial spin labeling techniques in distinguishing malignant from benign brain tumors.**

Ata ES, Turgut M, Eraslan C, Dayanır YÖ.

Eur J Radiol. 2016 Sep;85(9):1545-53. doi: 10.1016/j.ejrad.2016.05.015. Epub 2016 Jun 6.

*new*

**Dissociation among hemodynamic measures in asymptomatic high grade carotid artery stenosis.**

Marshall RS, Pavol MA, Cheung YK, Strom I, Slane K, Asllani I, Lazar RM.

J Neurol Sci. 2016 Aug 15;367:143-7. doi: 10.1016/j.jns.2016.05.011. Epub 2016 May 7.

*new*

**Cerebral blood flow changes in hemodialysis and peritoneal dialysis patients: an arterial-spin labeling MR imaging.**

Jiang XL, Wen JQ, Zhang LJ, Zheng G, Li X, Zhang Z, Liu Y, Zheng LJ, Wu L, Chen HJ, Kong X, Luo S, Lu GM, Ji XM, Zhang ZJ.

Metab Brain Dis. 2016 Aug;31(4):929-36. doi: 10.1007/s11011-016-9829-7. Epub 2016 May 11.

**Diffuse Brain Hypoperfusion in Advanced Leukoencephalopathy with Calcifications and Cysts.**

Bartolini E, Bianchi A, Bartolomei I, Vella A, Sali L, Ciccarone A, Salvi F, Mascalchi M.

J Stroke Cerebrovasc Dis. 2016 Aug;25(8):e111-3. doi:

10.1016/j.jstrokecerebrovasdis.2016.04.030. Epub 2016 May 19.

**Atomoxetine restores the response inhibition network in Parkinson's disease.**

Rae CL, Nombela C, Rodríguez PV, Ye Z, Hughes LE, Jones PS, Ham T, Rittman T, Coyle-Gilchrist I, Regenthal R, Sahakian BJ, Barker RA, Robbins TW, Rowe JB.

Brain. 2016 Aug;139(Pt 8):2235-48. doi: 10.1093/brain/aww138. Epub 2016 Jun 24.

**Decreased Regional Cerebral Perfusion at Resting State in Acute Posttraumatic Stress Disorder Resulting From a Single, Prolonged Stress Event.**

Zhe X, Liu K, Mu YF, Qi S, Xi YB, Du P, Huan Y, Tan QR, Yin H, Zhao HT, Ge YL, Chang YJ.

Acad Radiol. 2016 Sep;23(9):1083-90. doi: 10.1016/j.acra.2016.05.002. Epub 2016 Jun 6.

**Increased Cortical Cerebral Blood Flow in Asymptomatic Human Immunodeficiency Virus-Infected Subjects.**

Sen S, An H, Menezes P, Oakes J, Eron J, Lin W, Robertson K, Powers W.

J Stroke Cerebrovasc Dis. 2016 Aug;25(8):1891-5. doi:

10.1016/j.jstrokecerebrovasdis.2016.03.045. Epub 2016 May 5.

**A chronic encapsulated intracerebral hematoma mimicking a brain tumor: Findings on arterial spin labeling of MRI.**

Kamide T, Seki S, Suzuki K, Aoki T, Hirano K, Takahashi M, Nomura M.

Neuroradiol J. 2016 Aug;29(4):273-6. doi: 10.1177/1971400916648334. Epub 2016 May 6.

**Magnetic resonance imaging arterial-spin-labelling perfusion alterations in childhood migraine with atypical aura: a case-control study.**



Boulouis G, Shotar E, Dangouloff-Ros V, Grévent D, Calmon R, Brunelle F, Naggara O, Kossorotoff M, Boddaert N.  
Dev Med Child Neurol. 2016 Sep;58(9):965-9. doi: 10.1111/dmcn.13123. Epub 2016 Apr 6.

**Lesional perfusion abnormalities in Leigh disease demonstrated by arterial spin labeling correlate with disease activity.**

Whitehead MT, Lee B, Gropman A.  
Pediatr Radiol. 2016 Aug;46(9):1309-16. doi: 10.1007/s00247-016-3616-9. Epub 2016 Apr 4.

**Utility of arterial spin labeling perfusion magnetic resonance imaging in prediction of angiographic vascularity of meningiomas.**

Yoo RE, Yun TJ, Cho YD, Rhim JH, Kang KM, Choi SH, Kim JH, Kim JE, Kang HS, Sohn CH, Park SW, Han MH.  
J Neurosurg. 2016 Sep;125(3):536-43. doi: 10.3171/2015.8.JNS151211. Epub 2016 Jan 29.

**A novel use of arterial spin labelling MRI to demonstrate focal hypoperfusion in individuals with posterior cortical atrophy: a multimodal imaging study.**

Lehmann M, Melbourne A, Dickson JC, Ahmed RM, Modat M, Cardoso MJ, Thomas DL, De Vita E, Crutch SJ, Warren JD, Mahoney CJ, Bomanji J, Hutton BF, Fox NC, Golay X, Ourselin S, Schott JM.

J Neurol Neurosurg Psychiatry. 2016 Sep;87(9):1032-4. doi: 10.1136/jnnp-2015-312782. Epub 2016 Jan 5. No abstract available.

[Free Article](#)

**Brain magnetic resonance imaging CO2 stress testing in adolescent postconcussion syndrome.**

Mutch WA, Ellis MJ, Ryner LN, Ruth Graham M, Dufault B, Gregson B, Hall T, Bunge M, Essig M, Fisher JA, Duffin J, Mikulis DJ; for The Canada North Concussion Network, and ; for The University Health Network Cerebrovascular Reactivity Research Group.

J Neurosurg. 2016 Sep;125(3):648-60. doi: 10.3171/2015.6.JNS15972. Epub 2015 Dec 18.

**Neurovascular unit impairment in early Alzheimer's disease measured with magnetic resonance imaging.**

van de Haar HJ, Jansen JF, van Osch MJ, van Buchem MA, Muller M, Wong SM, Hofman PA, Burgmans S, Verhey FR, Backes WH.

Neurobiol Aging. 2016 Sep;45:190-6. doi: 10.1016/j.neurobiolaging.2016.06.006. Epub 2016 Jun 17.

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Diagn Interv Radiol. 2016 Sep-Oct;22(5):481-8. doi: 10.5152/dir.2016.15204.

[Free PMC Article](#)

**Quantitative Assessment of Flow Reduction After Feeder Embolization in Meningioma by Using Pseudocontinuous Arterial Spin Labeling.**

Wanibuchi M, Komatsu K, Akiyama Y, Mikami T, Iihoshi S, Miyata K, Mikuni N.  
World Neurosurg. 2016 Sep;93:237-45. doi: 10.1016/j.wneu.2016.06.004. Epub 2016 Jun 11.

**In Vivo T1 of Blood Measurements in Children with Sickle Cell Disease Improve Cerebral Blood Flow Quantification from Arterial Spin-Labeling MRI.**

Václavů L, van der Land V, Heijtel DF, van Osch MJ, Cnossen MH, Majoie CB, Bush A, Wood JC, Fijnvandraat KJ, Mutsaerts HJ, Nederveen AJ.  
AJNR Am J Neuroradiol. 2016 Sep;37(9):1727-32. doi: 10.3174/ajnr.A4793. Epub 2016 May 26.

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

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AJNR Am J Neuroradiol. 2016 Sep 29. [Epub ahead of print]

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**Comparison of 3D Multi-inversion Time Arterial Spin Labeling and Digital Subtraction Angiography in the Evaluation of Cerebral Collateral Circulation.**

Wu EZ, Liu X, Dornbos D 3rd, Pfeuffer J, Qian TY, Qiao PG, Pan YS, Dou X, Zuo ZW, Liu LP, Xie P.  
CNS Neurosci Ther. 2016 Sep 21. doi: 10.1111/cns.12603. [Epub ahead of print] No abstract available.

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**Combined Diffusion Tensor Imaging and Arterial Spin Labeling as Markers of Early Parkinson's disease.**

Wei X, Yan R, Chen Z, Weng R, Liu X, Gao H, Xu X, Kang Z, Liu Z, Guo Y, Liu Z, Larsen JP, Wang J, Tang B, Hallett M, Wang Q.  
Sci Rep. 2016 Sep 20;6:33762. doi: 10.1038/srep33762.  
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**Comparison of cerebral blood flow and structural penumbras in relation to white matter hyperintensities: A multi-modal magnetic resonance imaging study.**

Promjunyakul NO, Lahna DL, Kaye JA, Dodge HH, Erten-Lyons D, Rooney WD, Silbert LC.  
J Cereb Blood Flow Metab. 2016 Sep;36(9):1528-36. doi: 10.1177/0271678X16651268. Epub 2016 Jun 7.

**Intravoxel incoherent motion diffusion-weighted imaging analysis of diffusion and microperfusion in grading gliomas and comparison with arterial spin labeling for evaluation of tumor perfusion.**

Shen N, Zhao L, Jiang J, Jiang R, Su C, Zhang S, Tang X, Zhu W.

J Magn Reson Imaging. 2016 Sep;44(3):620-32. doi: 10.1002/jmri.25191. Epub 2016 Feb 16.

[A novel use of arterial spin labelling MRI to demonstrate focal hypoperfusion in individuals with posterior cortical atrophy: a multimodal imaging study.](#)

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[In Vivo T1 of Blood Measurements in Children with Sickle Cell Disease Improve Cerebral Blood Flow Quantification from Arterial Spin-Labeling MRI.](#)

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AJNR Am J Neuroradiol. 2016 Sep;37(9):1727-32. doi: 10.3174/ajnr.A4793. Epub 2016 May 26.

## Functional Imaging / BOLD

*new*

[Noise Reduction in Arterial Spin Labeling Based Functional Connectivity Using Nuisance Variables.](#)

Jann K, Smith RX, Rios Piedra EA, Dapretto M, Wang DJ.

Front Neurosci. 2016 Aug 23;10:371. doi: 10.3389/fnins.2016.00371. eCollection 2016.

*new*

[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 Aug 29. doi: 10.1111/acer.13175. [Epub ahead of print]

*new*

[Calibrated bold fMRI with an optimized ASL-BOLD dual-acquisition sequence.](#)

Fernández-Seara MA, Rodgers ZB, Englund EK, Wehrli FW.

Neuroimage. 2016 Aug 5. pii: S1053-8119(16)30385-8. doi: 10.1016/j.neuroimage.2016.08.007. [Epub ahead of print]

*new*

[CBT reduces CBF: cognitive-behavioral therapy reduces cerebral blood flow in fear-relevant brain regions in spider phobia.](#)

Soravia LM, Orosz A, Schwab S, Nakataki M, Wiest R, Federspiel A.

Brain Behav. 2016 Jul 6;6(9):e00510. eCollection 2016 Sep.

*new*

[Static and dynamic functional connectivity in patients with chronic fatigue syndrome: use](#)

**of arterial spin labelling fMRI.**

Boissoneault J, Letzen J, Lai S, Robinson ME, Staud R.

Clin Physiol Funct Imaging. 2016 Sep 28. doi: 10.1111/cpf.12393. [Epub ahead of print]

*new*

**Neurovascular unit remodelling in the subacute stage of stroke recovery.**

Lake EM, Bazzigaluppi P, Mester J, Thomason LA, Janik R, Brown M, McLaurin J, Carlen PL, Corbett D, Stanisiz GJ, Stefanovic B.

Neuroimage. 2016 Sep 21. pii: S1053-8119(16)30480-3. doi: 10.1016/j.neuroimage.2016.09.016. [Epub ahead of print]

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Addict Biol. 2016 Sep 22. doi: 10.1111/adb.12459. [Epub ahead of print]

*new*

**Noise concerns and post-processing procedures in cerebral blood flow (CBF) and cerebral blood volume (CBV) functional magnetic resonance imaging.**

Donahue MJ, Juttukonda MR, Watchmaker JM.

Neuroimage. 2016 Sep 11. pii: S1053-8119(16)30468-2. doi: 10.1016/j.neuroimage.2016.09.007. [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.**

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**Decreased Regional Cerebral Perfusion at Resting State in Acute Posttraumatic Stress Disorder Resulting From a Single, Prolonged Stress Event.**

Zhe X, Liu K, Mu YF, Qi S, Xi YB, Du P, Huan Y, Tan QR, Yin H, Zhao HT, Ge YL, Chang YJ. Acad Radiol. 2016 Sep;23(9):1083-90. doi: 10.1016/j.acra.2016.05.002. Epub 2016 Jun 6.

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## Others CBF Related

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[Assessment of Cerebral Blood Perfusion Reserve with Acetazolamide Using 3D Spiral ASL MRI: Preliminary Experience in Pediatric Patients.](#)

Hu HH, Li Z, Pokorney AL, Chia JM, Stefani N, Pipe JG, Miller JH.  
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[Suspected stroke in a pregnant woman: Usefulness of arterial spin labeling MRI sequences.](#)

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[The role of cerebral blood flow gradient in peritumoral edema for differentiation of glioblastomas from solitary metastatic lesions.](#)

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**The major cerebral arteries proximal to the Circle of Willis contribute to cerebrovascular resistance in humans.**

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**Aerobic fitness is associated with greater hippocampal cerebral blood flow in children.**

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Dev Cogn Neurosci. 2016 Aug;20:52-8. doi: 10.1016/j.dcn.2016.07.001. Epub 2016 Jul 4.

## **Physiological Parameters besides CBF**

**In Vivo T1 of Blood Measurements in Children with Sickle Cell Disease Improve Cerebral Blood Flow Quantification from Arterial Spin-Labeling MRI.**

Václavů L, van der Land V, Heijtel DF, van Osch MJ, Cnossen MH, Majoie CB, Bush A, Wood JC, Fijnvandraat KJ, Mutsaerts HJ, Nederveen AJ.

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## **ASL for Angiography**

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**Improvement in visualization of carotid artery uniformity using silent magnetic resonance angiography.**

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[Implication of cerebral circulation time in intracranial stenosis measured by digital subtraction angiography on cerebral blood flow estimation measured by arterial spin labeling.](#)

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[\*\*Arterial Spin-Labeling Magnetic Resonance Perfusion Imaging with Dual Postlabeling Delay in Internal Carotid Artery Steno-occlusion: Validation with Digital Subtraction Angiography.\*\*](#)

Akiyama T, Morioka T, Shimogawa T, Haga S, Sayama T, Kanazawa Y, Murao K, Arakawa S.  
J Stroke Cerebrovasc Dis. 2016 Sep;25(9):2099-108. doi:  
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[\*\*MR Angiography at 7T to Visualize Cerebrovascular Territories.\*\*](#)

Neumann JO, Giese H, Nagel AM, Biller A, Unterberg A, Meinzer HP.  
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## **ASL in Kidneys**

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Romero C, Monu S, Cabral G, Knight R, Carretero O.  
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[\*\*Evaluation of renal allografts function early after transplantation using intravoxel incoherent motion and arterial spin labeling MRI.\*\*](#)

Ren T, Wen CL, Chen LH, Xie SS, Cheng Y, Fu YX, Oesingmann N, de Oliveira A, Zuo PL, Yin JZ, Xia S, Shen W.  
Magn Reson Imaging. 2016 Sep;34(7):908-14. doi: 10.1016/j.mri.2016.04.022. Epub 2016 Apr 22.

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

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[Improving the Grading Accuracy of Astrocytic Neoplasms Noninvasively by Combining Timing Information with Cerebral Blood Flow: A Multi-TI Arterial Spin-Labeling MR Imaging Study.](#)

Yang S, Zhao B, Wang G, Xiang J, Xu S, Liu Y, Zhao P, Pfeuffer J, Qian T.  
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[Feasibility of non-contrast-enhanced four dimensional \(4D\) MRA in head and neck tumors, comparison with contrast-enhanced 4D MRA.](#)

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[Suspected stroke in a pregnant woman: Usefulness of arterial spin labeling MRI sequences.](#)

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

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

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

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[Noise Reduction in Arterial Spin Labeling Based Functional Connectivity Using Nuisance Variables.](#)

Jann K, Smith RX, Rios Piedra EA, Dapretto M, Wang DJ.  
Front Neurosci. 2016 Aug 23;10:371. doi: 10.3389/fnins.2016.00371. eCollection 2016.



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[Impaired cerebral blood flow networks in temporal lobe epilepsy with hippocampal sclerosis: A graph theoretical approach.](#)

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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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[Noise concerns and post-processing procedures in cerebral blood flow \(CBF\) and cerebral blood volume \(CBV\) functional magnetic resonance imaging.](#)

Donahue MJ, Juttukonda MR, Watchmaker JM.

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[Intravoxel incoherent motion diffusion-weighted imaging in stroke patients: initial clinical experience.](#)

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[Noise Reduction in Arterial Spin Labeling Based Functional Connectivity Using Nuisance Variables.](#)

Jann K, Smith RX, Rios Piedra EA, Dapretto M, Wang DJ.  
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[Calibrated bold fMRI with an optimized ASL-BOLD dual-acquisition sequence.](#)

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[A look-locker acquisition scheme for quantitative myocardial perfusion imaging with FAIR arterial spin labeling in humans at 3 tesla.](#)

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[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.  
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Guo J, Buxton RB, Wong EC.  
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## ASL at Field Strength > 3T

[MR Angiography at 7T to Visualize Cerebrovascular Territories.](#)

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## Case Reports

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### [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 KI, Aoki T, Hirano KI, Takahashi M, Kawabata Y, Nakano T, Taguchi H.  
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Bartolini E, Bianchi A, Bartolomei I, Vella A, Sali L, Ciccarone A, Salvi F, Mascalchi M.  
J Stroke Cerebrovasc Dis. 2016 Aug;25(8):e111-3. doi:  
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### [A chronic encapsulated intracerebral hematoma mimicking a brain tumor: Findings on arterial spin labeling of MRI.](#)

Kamide T, Seki S, Suzuki K, Aoki T, Hirano K, Takahashi M, Nomura M.  
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### [Magnetic resonance imaging arterial-spin-labelling perfusion alterations in childhood migraine with atypical aura: a case-control study.](#)

Boulouis G, Shotar E, Dangouloff-Ros V, Grévent D, Calmon R, Brunelle F, Naggara O, Kossorotoff M, Boddaert N.  
Dev Med Child Neurol. 2016 Sep;58(9):965-9. doi: 10.1111/dmcn.13123. Epub 2016 Apr 6.

## Reproducibility Studies

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### [Multimodal MRI for early diabetic mild cognitive impairment: study protocol of a prospective diagnostic trial.](#)

Yu Y, Sun Q, Yan LF, Hu YC, Nan HY, Yang Y, Liu ZC, Wang W, Cui GB.  
BMC Med Imaging. 2016 Aug 24;16(1):50. doi: 10.1186/s12880-016-0152-x.

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[CBT reduces CBF: cognitive-behavioral therapy reduces cerebral blood flow in fear-relevant brain regions in spider phobia.](#)

Soravia LM, Orosz A, Schwab S, Nakataki M, Wiest R, Federspiel A.  
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Barlow K, Marcil LD, Carlson HL, Dewey D, MacMaster FP, Brooks BL, Lebel M.  
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[Insulin resistance is associated with lower arterial blood flow and reduced cortical perfusion in cognitively asymptomatic middle-aged adults.](#)

Hoscheidt SM, Kellawan JM, Berman SE, Rivera-Rivera LA, Krause RA, Oh JM, Beeri MS, Rowley HA, Wieben O, Carlsson CM, Asthana S, Johnson SC, Schrage WG, Bendlin BB.  
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[A hypo-status in drug-dependent brain revealed by multi-modal MRI.](#)

Wang Z, Suh J, Duan D, Darnley S, Jing Y, Zhang J, O'Brien C, Childress AR.  
Addict Biol. 2016 Sep 22. doi: 10.1111/adb.12459. [Epub ahead of print]

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[Comparison of cerebral blood flow and structural penumbras in relation to white matter hyperintensities: A multi-modal magnetic resonance imaging study.](#)

Promjunyakul NO, Lahna DL, Kaye JA, Dodge HH, Erten-Lyons D, Rooney WD, Silbert LC.

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Magn Reson Imaging. 2016 Sep;34(7):908-14. doi: 10.1016/j.mri.2016.04.022. Epub 2016 Apr 22.

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[Unilateral fetal-type circle of Willis anatomy causes right-left asymmetry in cerebral blood flow with pseudo-continuous arterial spin labeling: A limitation of arterial spin labeling-based cerebral blood flow measurements?](#)

Barkeij Wolf JJ, Foster-Dingley JC, Moonen JE, van Osch MJ, de Craen AJ, de Ruijter W, van der Mast RC, van der Grond J.

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[Use of 3D pseudo-continuous arterial spin labeling to characterize sex and age differences in cerebral blood flow.](#)

Liu W, Lou X, Ma L.

Neuroradiology. 2016 Sep;58(9):943-8. doi: 10.1007/s00234-016-1713-y. Epub 2016 Jul 5.

## Review Paper / Historical Review / Guidelines

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[Improving the Grading Accuracy of Astrocytic Neoplasms Noninvasively by Combining Timing Information with Cerebral Blood Flow: A Multi-TI Arterial Spin-Labeling MR Imaging Study.](#)

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[Modafinil In Debilitating fatigue After Stroke \(MIDAS\): study protocol for a randomised, double-blinded, placebo-controlled, crossover trial.](#)

Lillicrap T, Krishnamurthy V, Attia J, Nilsson M, Levi CR, Parsons MW, Bivard A.  
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