

Danny J. J. Wang, Ph.D., M.S.C.E.Curriculum VitaeRevised Date: Dec 2017

- Full Contact: Professor of Neurology and Radiology
 Director of Imaging Technology Innovation
 Mark & Mary Stevens Neuroimaging and Informatics Institute
 Keck School of Medicine
 University of Southern California
 Los Angeles, CA 90032
 Email: jj.wang@loni.usc.edu
- Education: 1989-1993 B.S. Fu Dan University, Shanghai, China (Biophysics)
 1993-1998 Ph.D. University of Science and Technology of China, Beijing, China (Biophysics)
 2007-2010 M.S.C.E. (Master of Science in Clinical Epidemiology)
 University of Pennsylvania, School of Medicine, Philadelphia, PA
- Fellowship: 3/99-11/00 Postdoc Research Fellow, Department of Diagnostic Therapeutics, University of Connecticut Health Center, Farmington, CT (Advisor: Song Lai, Ph.D.)
 11/00-11/01 Postdoc Research Fellow, Departments of Neurology and Radiology, University of Pennsylvania School of Medicine, Philadelphia, PA (Advisor: John Detre, M.D.)
 11/01-9/03 Research Associate, Departments of Neurology and Radiology, University of Pennsylvania School of Medicine, Philadelphia, PA
- Professional Experience: 9/03-2/10 Research Assistant Professor, Department of Radiology, University of Pennsylvania School of Medicine, Philadelphia, PA
 1/06-2/10 Research Assistant Professor, Department of Neurology, University of Pennsylvania School of Medicine, Philadelphia, PA
 2/11-2/13 Adjunct Associate Professor, Department of Radiology, University of Pennsylvania School of Medicine, Philadelphia, PA
 2/10-6/15 Associate Professor-in-Residence, Department of Neurology, UCLA David Geffen School of Medicine, Los Angeles, CA
 2/11-6/15 Associate Professor-in-Residence (secondary), Department of Radiology, UCLA David Geffen School of Medicine, Los Angeles, CA
 7/15-6/16 Professor-in-Residence, Department of Neurology, UCLA David Geffen School of Medicine, Los Angeles, CA
 7/15-6/16 Professor-in-Residence (secondary), Department of Radiology, UCLA David Geffen School of Medicine, Los Angeles, CA

- 6/12-present Executive Director, UCLA-Beijing Joint Center for Advanced Brain Imaging
- 6/16-present Adjunct Professor, Department of Neurology, UCLA David Geffen School of Medicine, Los Angeles, CA
- 6/16-present Professor, Department of Neurology, Keck School of Medicine, University of Southern California, Los Angeles, CA
- 6/16-present Director of Imaging Technology Innovation, Mark & Mary Stevens Neuroimaging and Informatics Institute, Keck School of Medicine, University of Southern California, Los Angeles, CA

Professional Activities:

- 2004-present External reviewer for Hong Kong RGC (Research Grants Council)
- 2006 NICHD Special Emphasis Panel CHHD-C
- 2008 NSF Cognitive Neuroscience Advisory Panel
- 2008 External reviewer for Strategic Grant, MRC UK
- 2009 External reviewer for BBSRC fellowship grant, BBSRC, UK
- 2010 Consultant for Pfizer, Inc. Groton, CT
- 2011-2012 NIH Special Emphasis Panel ZRG1 OTC-K, ZDA1 GXM-A
- 2010-2012 UCLA Department of Neurology Graduate Education Committee
- 2011-2016 Legislative Assembly Member | UCLA Academic Senate
- 2013 NIH Study Section MEDI
- 2013-2016 UCLA Department of Neurology Appoint & Promotion committee
- 2015 Graduate Summer Research Mentorship (GSRM) Program Fellowship Review Committee
- 2015-present NIH Study Section NOIT
- 2015 Consultant for Novartis, Inc. Basel, Switzerland
- 2016-present Consultant for Biogen IDEC and Bioclinica, Newark, CA
- 2017-present Ad hoc committee on quantitative MRI of ISMRM
- 2017 External reviewer for Netherlands Organisation for Scientific Research (NWO)

Awards, Honors and Membership in Honorary Societies:

- 1990-93 People's Scholarship
- 1997 HongKong Dong's Scholarship
- 2012-present Outstanding Reviewer for MRM and JMRI – ISMRM
- 2014 ISMRM Junior Fellow (Mentor)
- 2015-2017 OHBM Merit Abstract Award (Mentor)

International Society of Magnetic Resonance in Medicine (Member 1998-present)
 Organization of Human Brain Mapping (Member 1999-present)
 American Association of Physicist in Medicine (Member 2015-present)

Editorial Positions:

- 2007-present Editorial Board Member The Medical Imaging Journal
- 2011-2017 Editorial Board Member The Scientific World JOURNAL (Radiology Domain)
- 2011 Guest Editor, Special issue of Journal of Cognitive Science

- 2014-present Editorial Board Member JSM Alzheimer's Disease and Related Dementia
- 2014 Guest Editor, Special issue of BioMed Research International "Resting Brain Networks and Function"
- 2015-present Editorial Board Member (brain imaging methods) Frontiers in Neuroscience and Frontiers in Neurology
- 2017 Guest Editor, Special issue of Frontiers in Neuroscience "Advances in multiscale analysis of brain complexity"

Ad hoc Reviewer:

- 2002-present Magnetic Resonance in Medicine, NMR in Biomed.
- 2004-present American Journal of Respiratory and Critical Care Medicine, Neuroscience Letters
- 2005-present Journal of Cerebral Blood Flow and Metabolism, IEEE Transaction on Medical Imaging, Journal of the International Neuropsychological
- 2007-present NeuroImage, Stroke, Neuropsychopharmacology, Journal of Magnetic Resonance Imaging
- 2008-present Psychoneuroendocrinology, American Journal of Neuroradiology
- 2010-present Medical Physics; American Journal of Psychiatry, Human Brain Mapping, American Journal of Psychiatry
- 2011-present European Neurology, Journal of Neuroscience, Translational Stroke Research, MAGMA, PNAS
- 2012-present Brain Connectivity, Psychopharmacology, Frontiers Psychology, Psychiatric Research: Neuroimaging
- 2013-present PLoS One, Neuroradiology
- 2015-present Biological Psychiatry, Brain Imaging and Behavior, PeerJ, Journal of Neurology, Neurosurgery, & Psychiatry, Frontiers in Neuroscience and Neurology
- 2016-present Brain Stimulation, International Journal of Imaging Systems and Technology, Brain and Behavior, Lupus, Science in China, Scientific Report, Journal of Neurosci Method, Nature Communications, Magnetic Resonance Imaging
- 2017-present Sleep, Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring, The Open Neuroimaging Journal

Teaching:

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| Faculty in UCLA Bioengineering Graduate Program | 2010-2016 |
| Faculty in UCLA Biomedical Physics Graduate (BMP) Program | 2011-2016 |
| Faculty in UCLA Neuroscience Inter-Department Graduate Program (IDP) | 2012-2016 |
| Faculty in USC Biomedical Engineering (BME) Program | 2016-present |

Courses:

1. ISMRM annual meeting weekend education courses 2008-present
2. UCLA, Advanced topics in MRI (resident course) 2010-2012
3. UCLA Advances in MRI: Clinical MRS & Fast MRI Techniques (BMP222) 2011-2014
4. UCLA Quantitative MRI and Contrast Agents (BMP225) 2012-2014

5. UCLA Human Diseases: Current and Future Role of Biomedical Physics (BMP227) 2014-2016
6. UCLA Advanced Topics in MRI (BMP229) 2014
7. UCLA CTSI short course on translational neuroimaging 2013-2014
8. Ethics and Accountability in Biomedical Research (C234) 2015-2016
9. Neuroimaging and Neuromodulation (BE298) 2015-2016
10. Principles of Neuroimaging (M284) 2016
11. NIIN 510: Fundamentals of Human Functional and Structural Neuroimaging 2016
12. NIIN 598: Neuroimaging and informatics seminar series 2017
13. NIIN 530: Neuroimaging data acquisition with MRI 2017

Research Grants and Fellowships Received:

Active:

NIH R41-EB024438 Wang 08/1/2017 - 07/31/2018

A Novel System for Reducing Radiation Dose of CT Perfusion

To develop and evaluate a novel dose reduction technique for CT perfusion data.

Role: Principal Investigator

R61MH110526 Narr/Wang 07/10/2017 - 06/30/2022

Imaging-guided tDCS therapy in major depression

This project aims to optimize and evaluate MRI guided tDCS therapy in patients with major depression.

Role: Co-Principal Investigator

UH2NS100614 Wang/Ringman/Kashani (PI) 10/1/16-9/30/21

NINDS Imaging Cerebral and Retinal Microvasculature in Cerebral Small Vessel Disease

This project aims to develop and evaluate MRI and OCTA markers of small vessel diseases

Role: Principal Investigator

U01MH110008 Narr/Wang/Espinoza (PI) 9/2/16-5/31/20

Perturbation of the Treatment Resistant Depression Connectome by Fast-acting Therapies

This project aims to investigate connectome changes in patients with treatment resistant depression using the HCP protocol.

Role: Co-Principal Investigator

R01 EB014922 Wang (PI) 12/14/12-11/30/17

NIBIB Non-contrast 4D dynamic MRA in arteriovenous malformation

This project will develop and validate a non-contrast 4D dynamic MRA technique for the evaluation of arteriovenous malformation.

Role: Principal Investigator

R01 MH111896 Bikson (PI) / Wang (Sub-PI) 9/01/16-6/30/20

NIMH (BRAIN project) Software package for dose optimization of tDCS

This project aims to develop, optimize and validate a cloud based software package for simulating and optimizing tDCS dose.

Role: USC Subaward-PI

U01-AG051218 Ringman (PI) 9/1/15-8/31/19

NIA The structural and functional connectome across Alzheimer's disease subtypes
 This Connectome in Human Disease project investigates structural and functional connectome across Alzheimer's disease subtypes
 Role: Co-Investigator

U01AG052564 Van Essen et. al. (PIs) 8/19/16-5/31/20
 NIA Mapping the human connectome during typical aging
 This is the second phase Human Connectome Project to map the human connectome during typical aging
 Role: Consultant for ASL development and application

R01NR015038 Kumar (PI) 4/1/15-6/30/16
 NINR Blood-Brain Barrier Deficit and Brain Injury in Obstructive Sleep
 To investigate BBB injury in obstructive sleep using diffusion weighted perfusion MRI and diffusion MRI.
 Role: Co-Investigator

R01NR014669 Woo/Kumar (PI) 9/12/14-6/30/16
 NINR Blood-Brain Barrier Dysfunction and Brain Injury in Heart Failure
 To investigate BBB injury in heart failure using diffusion weighted perfusion MRI and diffusion MRI.
 Role: Co-Investigator

Past:

U01 HD087221 Devaskar, Janzen, Sung (PI) 10/1/15-6/30/16
 NICHD Imaging Innovations for Placental Assessment in Response to Environmental Pollution
 This project will develop and evaluate noninvasive MRI of placenta throughout pregnancy.
 Role: Co-Investigator

R01NS081077 Wang (PI) 9/1/12-8/31/16
 NINDS Arterial spin labeling in acute ischemic stroke
 To evaluate ASL perfusion MRI in the diagnosis of acute ischemic stroke (AIS).
 Role: Principal Investigator

CDPH 13-12008 Ringman/Wang (PI) 05/01/13-4/30/16
 CDPH ASL perfusion and resting state fMRI in FAD
 This California state funded project will evaluate ASL perfusion and resting state fMRI in familial AD
 Role: Co-Principal Investigator

R01 MH080892 Wang (PI) 4/15/09-6/30/15
 NIMH Pediatric template of brain perfusion
 To develop a functional template or atlas of the normal pediatric brain using arterial spin labeling perfusion MRI.
 Role: Principal Investigator

Biogen Idec Wang (PI) 05/01/13-04/30/15
 Development and Optimization of Renal MRI in Lupus Nephritis

This industry sponsored project will develop and optimize diffusion, perfusion, BOLD and T1rho MRI for kidney imaging in Lupus Nephritis and healthy controls.

Role: Principal Investigator

Restrepo (PI) 05/01/14-04/30/15

Pfizer Inc A PHASE 2 R DB PC TRAIL TO EVALUATE THE SAFETY, TOLERABILITY, PHARMACOKINETICS & EFFICACY OF PF-04360

This industry sponsored project will evaluate a novel agent for cerebral amyloid angiopathy using MRI.

Role: Co-Investigator

Wang (PI) 11/01/12-10/31/14

Siemens Healthcare Development and Evaluation of 3D GRASE pCASL

This industry sponsored project will develop and evaluate 3D GRASE based pCASL on the new Skyra system.

Role: Principal Investigator

Wang (PI) 7/1/13-6/30/14

UCLA CART Pilot grant

NIH Perfusion and Connectivity in ASD

This pilot project will explore ASL perfusion MRI and functional connectivity analysis in autism spectrum disorder.

Role: Principal Investigator

Holland/Toga (PI) 1/1/11-12/31/13

HHSN275200900018C

NIH Pediatric Functional Neuroimaging Research Network

This project attempts to acquire and develop a database for resting state fMRI and ASL perfusion MRI in children 1mo to 17years old.

Role: Co-Investigator

Wang (PI) 7/1/12-6/30/13

US-China Biomedical Collaboration Project

R01 MH080892-04S1

NIMH Pediatric template of brain perfusion and connectivity

To investigate the relationship between CBF and structural and functional connectivity of pediatric brain using perfusion, diffusion, structural and functional MRI.

Role: Principal Investigator

Wang (PI) 05/01/12-04/30/13

Biogen Idec

Development and Optimization of Renal MRI

This industry sponsored project will develop and optimize diffusion, perfusion, BOLD and T1rho MRI for kidney imaging.

Role: Principal Investigator

Wang (PI) 10/1/09-9/30/12

R01 MH080892-S1 (ARRA)

NIMH Pediatric template of brain perfusion

To develop an integrated structural and functional template or atlas of pediatric brain using perfusion, diffusion, structural and functional MRI.

Role: Principal Investigator

Wang (PI) 06/01/09-05/30/12

R21MH72576 Wang (PI) 01/01/05-11/30/07
NIMH Pediatric Template of Brain Perfusion

To explore the development a functional template or atlas of the normal pediatric brain using arterial spin labeling perfusion MRI.

Role: Principal Investigator

R21 HD049893 Wang (PI) 09/15/05-09/14/08
NICDH Hemodynamic Neuroimaging of Pediatric Stroke

To evaluate perfusion and diffusion MRI in the diagnosis and prognosis of pediatric stroke.

Role: Principal Investigator

Thrasher Research Fund Wang (PI) 02/01/04-1/31/06
ASL Perfusion MRI in Pediatric Brain Stroke

Role: Principal Investigator

Lectures by Invitation:

Oct 25, 2017 “7T Terra and its applications in cerebral small vessel diseases” – Invited talk at Beijing Center of MRI Research, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China

Oct 23, 2017 “ASL perfusion MRI in cerebral small vessel diseases” – Invited talk at Department of Radiology, Beijing PLA Hospital, Beijing, China

Oct 12, 2017 “ASL perfusion MRI in cerebral small vessel diseases” – Invited talk at 2nd Leducq Transatlantic Consortium meeting, University of Southern California, Los Angeles

Oct 6, 2017 “In vivo mapping of electromagnetic and neurophysiological effects of tDCS using MRI” – Invited talk at NM Neuromodulation meeting, University of New Mexico, Albuquerque, NM

Oct 5, 2017 “ASL perfusion MRI in cerebral small vessel diseases” – Invited talk at Mind Research Network, University of New Mexico, Albuquerque, NM

Apr 18, 2017 “ASL perfusion MRI in stroke and cerebrovascular disorders” – Invited talk at 14th annual congress of Society for Brain Mapping and Therapeutics (SBMT), Los Angeles, CA

Feb 20, 2017 “Imaging Cerebral and Retinal Microvasculature in Cerebral Small Vessel Disease” – Invited talk at the Kickoff meeting of the MarkVCID consortium, Houston, TX

Dec 1, 2016 “Quantitative perfusion and functional MRI in the era of connectome” – Invited talk at Interdisciplinary Institute of Neuroscience and Technology, Zhejiang University (ZIINT), Hangzhou, Zhejiang, China

Nov 30, 2016 “ASL perfusion MRI and dynamic MRA” – Invited talk at Department of Radiology, Xuanwu Hospital, Beijing, China

Aug 30, 2016 “Noncontrast perfusion MRI and dynamic MRA in cerebrovascular disorders” – Invited talk at Huntington Memorial Research Institute, Pasadena, CA

May 14, 2016 “ASL perfusion MRI in stroke and cerebrovascular disorders” – Invited talk at Qianjiang Radiology Workshop, Zhejiang University, Hangzhou, China

Nov 23, 2015 “Quantitative perfusion and functional MRI in the era of connectome” – Invited talk at Biomedical Research Imaging Center (BRIC), University of North Carolina at Chapel Hill, Chapel Hill, NC

Nov 22, 2015 “Quantitative perfusion and functional MRI in the era of connectome” – Invited talk at Department of Radiology, John Hopkins University, Baltimore, MD

- Nov 21, 2015 “ASL perfusion MRI and dynamic MRA” – Invited talk at Department of Radiology, John Hopkins University, Baltimore, MD
- July 22, 2015 “Overview of SMS in arterial spin labeling – the battle between 3D and 2D SMS” – Invited talk at ISMRM simultaneous multi-slice (SMS) workshop, Pacific Grove, CA
- June 3, 2015 “Assessing relationship between intracranial vascular compliance and aortic pulse wave velocity” – Oral presentation at 23rd ISMRM conference educational session “Quantitative Physiology”, Toronto, Canada
- June 1, 2015 “Postischemic hyperperfusion is related to hemorrhagic transformation in patients with acute ischemic stroke” – Oral presentation at 23rd ISMRM conference educational session “Quantitative Physiology”, Toronto, Canada
- May 30, 2015 “Vascular permeability imaging and quantitative ASL” – Invited talk at 23rd ISMRM conference educational session “Quantitative Physiology”, Toronto, Canada
- April 28, 2015 “Utility of imaging outcome in multi-center SLE trial” – Invited talk at Novartis Biomarker Summit, Boston, MA
- April 27, 2015 “Multi-modal renal fMRI in lupus nephritis” – Invited talk at Biogen IDEC, Boston, MA
- Mar 8, 2015 “Intracranial vascular compliance and perfusion in aging and dementia” – Invited talk at 2015 Congress of the Society of Brain Mapping & Therapeutics (SBMT), Los Angeles, CA
- Mar 7, 2015 “Arterial spin labeling based noncontrast dynamic MR angiography” – Invited talk at ISMRM workshop on noncontrast MRA, Long Beach, CA
- Aug 26, 2014 “Arterial spin labeling perfusion MRI and dynamic MR angiography” – Invited talk at Wayne State University, Detroit, MI
- June 30, 2014 “Characterization of resting and behavioral states using perfusion and BOLD fMRI” – Invited talk at Multimodal Neuroimaging Training Program (MNTP), University of Pittsburgh, PA
- March 1, 2014 “Characterization of resting and behavioral states using perfusion and BOLD fMRI” – Invited talk at Hangzhou Normal University, Hangzhou, China
- Oct 22, 2013 “Arterial spin labeling perfusion MRI and dynamic MR angiography” – Invited talk at University of Southern California, Los Angeles, CA
- April 22, 2013 “Multi-Delay Multi-Parametric Arterial Spin-Labeled Perfusion MRI in Acute Ischemic Stroke – Comparison with Dynamic Susceptibility Contrast Enhanced Perfusion Imaging” – Oral presentation at 21th ISMRM annual meeting, Salt Lake City, Utah
- March 14, 2013 “Characterization of resting and behavioral states using perfusion and BOLD fMRI” – Invited talk at Indiana University Center for Neuroimaging, Indianapolis, IN
- March 13, 2013 “Translation of arterial spin labeling perfusion MRI and angiography in neurologic disorders” – Invited talk at Indiana University Center for Neuroimaging, Indianapolis, IN
- March 4, 2013 “Complexity of resting state fMRI in aging and dementia” – Invited talk at 3rd Pacific Rim Neuroimaging Conference, Oahu, HI
- Dec 16, 2012 “ASL perfusion fMRI” – Invited talk at OCSMRM/CSMRM and ISMRM International Outreach Wrokshop, Xiamen, China
- Sept 10, 2012 “Multi-delay multi-parametric ASL perfusion MRI in acute ischemic stroke – comparison with dynamic susceptibility contrast (DSC) enhanced MRI” – Proffered talk at ISMRM perfusion workshop, Amsterdam, Netherland
- June 8, 2012 “Arterial spin labeling perfusion MRI” – Invited talk at Cedars-Sinai Hospital, Los Angeles, CA

- May 10, 2012 “Non-contrast dMRA with dynamic golden angle radial acquisition and k-space weighted imaging contrast (KWIC)” – Oral presentation at 20th ISMRM annual meeting, Melbourne, Australia
- May 8, 2012 “Arterial spin labeling perfusion MRI in CNS drug development and applications” – Invited kiosk talk at ISMRM MRI in drug development study group, Melbourne, Australia
- Sept 8, 2011 “Arterial spin labeling perfusion MRI - present and future” “Non-contrast 4D dynamic MRA and flow imaging “– Invited talks at Biomedical institute, National Polytechnic Institute, Mexico City, Mexico
- May 12, 2011 “Arterial Spin-Labeled Perfusion Imaging in Acute Ischemic Stroke – Comparison with Dynamic Susceptibility Contrast Enhanced MRI.” Presentation at 19th Annual Meeting ISMRM, Montréal, Canada
- May 5, 2011 “Recent developments of arterial spin labeling” – Invited talk at Siemens workshop on ASL, Erlangen, Germany
- Sept 15, 2010 “Perfusion fMRI using arterial spin labeling” – Invited talk at University of California Berkeley, Berkeley, CA
- Sept 15, 2010 “Pediatric perfusion MRI using arterial spin labeling” – Invited talk at Children’s Hospital of Los Angeles (CHLA), Los Angeles, CA
- Aug 18, 2010 “Characterizing stress states using perfusion and resting fMRI” – Invited talk at The 7th International Conference on Cognitive Science (ICCS2010), Beijing, China
- Jun 11, 2010 “Translation of arterial spin labeling perfusion MRI” – Invited talk at Center for Applied Medical Research, University of Navarra, Pamplona, Spain
- Jun 7, 2010 “Translation of arterial spin labeling perfusion MRI” – Invited talk at Karolinska Institute, Stockholm, Sweden
- Jan 11, 2010 “Latest technical development and clinical applications of ASL” – Invited talk at University of Texas Health Center at San Antonio, San Antonio, TX
- Nov 13, 2009 “Latest technical development and clinical applications of ASL” – Invited talk at Washington University, St Louis, MO
- Oct 19, 2009 “Latest technical development and clinical applications of ASL” – Invited talk at Tsinghua University, Beijing, China
- Oct 17, 2009 “Latest technical development and clinical applications of ASL” – Invited talk at National Seoul University, Seoul, Korea.
- July 1, 2009 “Arterial spin labeling - perfusion and beyond” – Invited talk at Ahmanson Lovelace Brain Mapping Center of UCLA, Los Angeles, CA
- May 27, 2009 “Arterial spin labeling - perfusion and beyond” – Invited talk at Neuroimaging lab, NIDA, Baltimore, MD
- May 8, 2009 “Technical development and applications of ASL perfusion MRI” – Invited talk at University of Kentucky, Lexington, KT
- April 20, 2009 “When perfusion meets diffusion – in vivo measurement of water permeability” – Invited talk at perfusion and diffusion study group, 17th ISMRM annual conferences, Honolulu, Hawaii
- April 18, 2009 “Can we measure perfusion in patients?” – Invited educational talk at 17th ISMRM annual conferences, Honolulu, Hawaii
- Oct 23, 2008 “Updates on latest development in ASL perfusion MRI” – Invited talk at Oxford centre for functional magnetic resonance imaging of the brain, Oxford university, Oxford, UK
- July 9, 2008 “Noninvasive perfusion MRI – from bench to bedside” – Invited talk at Brain Imaging Analysis Center, Duke Medical Center, Durham, NC

- July 2, 2008 “Noninvasive perfusion MRI – from bench to bedside and biomarker for drug discovery” – Invited talk at biomedical imaging consortium, Singapore
- May 3, 2008 “Applications of ASL perfusion MRI” – Invited educational talk at 16th ISMRM annual conferences, Toronto, Canada
- Oct 15, 2007 “ASL perfusion MRI in neuroimaging of stroke and stress” – Invited talk at University of Pittsburgh Medical Center, Pittsburgh, PA
- July 29, 2007 “Dynamic time course of water exchange across the blood-brain barrier revealed by diffusion weighted perfusion MRI” – Proffered talk at ISMRM workshop of perfusion and brain function, Salvador, Brazil
- July 31, 2007 “ASL perfusion MRI in cerebrovascular diseases” – Invited lecture at ISMRM workshop of perfusion and brain function, Salvador, Brazil
- May 16, 2007 “New frontiers in perfusion fMRI” – Invited lecture at University Hospital of Clinical Psychiatry, University of Bern, Switzerland
- Nov 16, 2006 “New frontiers in perfusion fMRI” – Invited lecture at Rochester Center for Brain Imaging, University of Rochester, Rochester NY
- Aug 8, 2006 “New advances in arterial spin labeling perfusion fMRI” – Invited lecture at Institute of Neuroscience, Chinese Academy of Sciences, Shanghai.
- May 4, 2006 “Perfusion fMRI of psychological stress” – Invited lecture at Rockefeller University, New York.
- Feb. 7, 2006 “Pediatric perfusion MRI using arterial spin labeling” – Invited lecture at Lawson Health Research Institute, London ON, Canada
- Jun. 29, 2005 “Perfusion fMRI in Cognitive Neuroscience” – Invited lecture at Singapore General Hospital, Singapore
- Jun. 12, 2005 “Perfusion fMRI in Cognitive Neuroscience” – Invited lecture at State Key Laboratory of Cognitive Brain Imaging, Chinese Academy of Science, Beijing, China
- May 18, 2005 “Perfusion fMRI reveals cerebral blood flow pattern under psychological stress” – 13th International Society of Magnetic Resonance in Medicine meeting, Miami.
- Apr. 29, 2005 “New frontiers in perfusion fMRI” – Invited lecture at Medical College of Wisconsin, Milwaukee, WI
- Sept 9, 2004 “New frontiers in perfusion fMRI” – Invited lecture at Emory University, Atlanta, GA
- June 20, 2004 “To spoil or not to spoil the labeling – transit time imaging in pulsed arterial spin labeling” – 12th International Society of Magnetic Resonance in Medicine meeting, Kyoto, Japan
- June 19, 2003 “Application of perfusion fMRI” – 10th Annual Conference of the Organization of Human Brain Mapping, New York
- July, 14, 2003 “Pediatric perfusion imaging using pulsed arterial spin labeling” – 11th International Society of Magnetic Resonance in Medicine meeting, Toronto
- July, 15, 2003 “Transit time imaging with flow encoding arterial spin tagging (FEAST)” – 11th International Society of Magnetic Resonance in Medicine meeting, Toronto.
- June, 11, 2002 “Comparison of Quantitative Perfusion Imaging using Arterial Spin Labeling at 1.5 and 4.0 Tesla” – 10th International Society of Magnetic Resonance in Medicine meeting, Hawaii.

Meeting session moderated:

- Apr 24, 2017 Cerebrovascular Disease: Intracranial & Extracranial – 25th ISMRM annual conferences, Honolulu, Hawaii
- Mar 8, 2015 Neurovascular Imaging in Stroke and Dementia – Congress of the Society of Brain Mapping & Therapeutics (SBMT), Los Angeles, CA

- Aug 18, 2010 Symposium on arterial spin labeling perfusion MRI - The 7th International Conference on Cognitive Science (ICCS2010), Beijing, China
- April 23, 2009 Arterial spin labeling techniques session - 17th ISMRM annual conferences, Honolulu, Hawaii
- July 31, 2007 Clinical applications of perfusion MRI – ISMRM workshop of perfusion and brain function, Salvador, Brazil

Publication/Bibliography:

Google Scholar *H*-index = 52

<http://scholar.google.com/citations?user=10iNskYAAAAJ&hl=en>

Research Publications, peer reviewed:

1. **J. Wang**, Y. Jin, F. Xiao, S. Fan and L. Chen. (1999) Attention-Sensitive Event-Related Potentials Elicited by Kinetic Forms. *Clin. Neurophysio.* **110**: 329-341.
2. **J. Wang**, T. Zhou, M. Qiu, A. Du, K. Cai, Z. Wang, C. Zhou, M. Meng, Y. Zhuo, S. Fan and L. Chen. (1999) Relationship between Ventral Stream for Object Vision and Dorsal Stream for Spatial Vision: an fMRI+ERP Study. *Human Brain Mapping* **8**(4): 170-181.
3. S. Lai, **J. Wang**, G.H. Jahng. (2001) FAIR exempting separate T1 measurement (FAIREST): a novel technique for online quantitative perfusion imaging and multi-contrast fMRI. *NMR in Biomed.* **14**:507-516.
4. R.L. Wolf, D.C. Alsop, M.L. McGarvey, J.A. Maldjian, **J. Wang**, J.A. Detre (2003) Susceptibility Contrast and Arterial Spin Labeled Perfusion MRI in Cerebrovascular Disease. *J. Neuroimage* **13**(1): 17-27.
5. **J. Wang**, D.C. Alsop, L. Li, J. Listerud, J.B. Gonzalez-At, M.D. Schnall and J.A. Detre (2002) Comparison of Quantitative Perfusion Imaging using Arterial Spin Labeling at 1.5 and 4.0 Tesla. *Magn. Reson. Med.* **48**:242-254.
6. T.F. Floyd, S.J. Ratcliffe, **J. Wang**, B. Resch, J.A. Detre. (2003) Precision of the CASL-perfusion MRI technique: global and regional cerebral blood flow within vascular territories at one hour and one week. *J. Mag. Reson. Imag.* **18**:649-655.
7. **J. Wang**, G.K. Aguirre, D.Y. Kimberg, J.A. Detre (2003) Empirical analyses of null-hypothesis perfusion fMRI data at 1.5 and 4.0 Tesla. *Neuroimage.* **19**(4):1449-1462.
8. **J. Wang**, D.C. Alsop, H.K. Song, J.A. Maldjian, K. Tang, A.E. Salvucci, J.A. Detre. (2003) Transit time imaging with flow encoding arterial spin tagging (FEAST). *Magn. Reson. Med.* **50**(3):599-607.
9. **J. Wang**, G.K. Aguirre, D.Y. Kimberg, A.C. Roc, L. Li, J.A. Detre (2003) Arterial spin labeling perfusion fMRI with very low task frequency. *Magn. Reson. Med.* **49**: 796-802.

10. Y. Zhuo, T. Zhou, H. Rao, **J. Wang**, M. Meng, M. Chen, C. Zhou, L. Chen (2003) Contributions of the visual ventral pathway to long range apparent motion. *Science* **299** (17): 417-420.
11. **J. Wang**, L. Li, A.C. Roc, D.C. Alsop, K. Tang, N. Butler, M.D. Schnall and J.A. Detre (2004) Reduced susceptibility effect in perfusion fMRI using single-shot spin-echo EPI acquisitions. *Magn. Reson. Imag.* **22**:1-7.
12. T. Durduran, G. Yu, M.G. Burnett, J.A. Detre, J.H. Greenberg, **J. Wang**, C. Zhou, A.G. Yodh (2004) Diffuse optical measurement of blood flow, blood oxygenation and metabolism in a human brain during sensorimotor cortex activation. *Optics Letters*, **29**(15): 1766-1768
13. **J. Wang**, D.J. Licht, G.H. Jahng, C.S. Liu, J.T. Rabin, J. Haselgrove, R.A. Zimmerman and J.A. Detre (2004) Pediatric perfusion imaging using pulsed arterial spin labeling. *J. Magn. Reson. Img.* **18**(4):404-413.
14. **J.Wang**, Z. Wang, G.K. Aguirre, J.A. Detre (2004) To smooth or not to smooth? – ROC analysis of perfusion fMRI data. *Magn. Reson. Imag.* **23**: 75-81
15. D.J. Licht, **J. Wang**, D.W. Silvestre, S.C. Nicolson, L.M. Montenegro, S. Tabbutt, S.M. Durning, M. Shabbout, D.M. Shera, J.W. Gaynor, T.L. Spray, R.R. Clancy, R.A. Zimmerman, J.A. Detre (2004) Preoperative Cerebral Blood Flow is Diminished in Neonates with Severe Congenital Heart Defects. *J. Thoracic & Cardiovascular Surgery*. **128**: 841-849
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Patents:

1. Improved methods for non-contrast 4D dynamic MRA (PCT/US2013/071590 pending)
2. Reducing radiation dose for dynamic CT scans (PCT/US2016/035116 pending)
3. Black blood MRI as imaging biomarker of small vessel disease (provisional patent)

* Founded perfusion fMRI website (www.cfn.upenn.edu/perfusion) and (www.loft-lab.org).
Written and disseminated (through agreement with Siemens and UPenn/UCLA Technology Transfer Center) ASL pulse sequences to approximately 200 imaging sites around the world

* Developed software package for complexity of resting state fMRI
(<http://www.fil.ion.ucl.ac.uk/spm/ext/#Complexity>)

* Co-Founder of Translational MRI, LLC to facilitate the translation of cutting-edge imaging technologies in clinical trials.

* Co-Founder of Hura Imaging, LLC to develop and market low dose CT imaging technologies.