

AARYANI TIPIRNENI-SAJJA, PHD

The University of Memphis
Department of Biomedical Engineering
324 Engineering Technology Building
Memphis, TN 38152

Phone: 901-678-3772 (office)
Phone: 901-361-5958 (mobile)
Email: Aaryani.Sajja@memphis.edu

EDUCATION

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| PhD, Biomedical Engineering (GPA: 4.0) | 2013 – 2017 |
| University of Memphis & University of Tennessee Health Science Center, TN, USA | |
| M.S, Biomedical Engineering (GPA: 4.0) | 2007 – 2010 |
| University of Memphis & University of Tennessee Health Science Center, TN, USA | |
| B.E, Biomedical Engineering (GPA: 4.0) | 2003 – 2007 |
| Osmania University College of Engineering, Hyderabad, India | |

EXPERIENCE

- **ASSISTANT PROFESSOR** Aug 2018 – present
The University of Memphis, Memphis, TN
- **POSTDOCTORAL FELLOW** Sep 2017 – Aug 2018
St. Jude Children's Research Hospital, Memphis, TN
- **PHD RESEARCH ASSISTANT** Sep 2013 – Aug 2017
St. Jude Children's Research Hospital, Memphis, TN
Dissertation: Towards Accurate Automated MRI based R2* measurements of hepatic iron content
- **RESEARCH ASSOCIATE** Feb 2011 – Aug 2013
Stanford Stroke Center & Department of Radiology, Stanford University, CA
- **IMAGING ANALYST** Nov 2010 – Jan 2011
Stroke Sciences Group, UCSF Medical Center, San Francisco, CA
- **GRADUATE RESEARCH ASSISTANT** May 2008 – Aug 2010
St. Jude Children's Research Hospital, Memphis, TN
Thesis: Measurement of glomerular filtration rate by dynamic contrast-enhanced (DCE) MRI using a subject-specific two-compartment model
- **UNDERGRADUATE RESEARCH ASSISTANT** Aug 2006 – April 2007
Osmania University College of Engineering, India
Project: Design and development of a microcontroller-based electro-oculography system for measurement of saccadic eye movements

HONORS & CERTIFICATIONS

ISMRM Merit Award, magna cum laude, ISMRM 22nd Scientific Meeting, 2014

Educational Stipend, ISMRM Scientific Meeting, 2009, 2014, 2015, 2017

Graduate Stipend Enhancement Award, University of Memphis, 2013-2014

Award for Merit, Academic excellence, Osmania University, 2007

Best Project Award, Osmania University, 2007

IDEA Pulse Programming Certification, Siemens Healthineers, 2018

PROFESSIONAL SOCIETIES

International Society for Magnetic Resonance in Medicine	2009, 2014 - present
American Roentgen Ray Society	2016 – present
Biomedical Engineering Society	2018 – present

PEER REVIEWER

Editorial Board Member 2017 - present
Magnetic Resonance Section, European Radiology

Journal Reviewer

European Radiology	2015 – present
Pediatric Radiology	2015 – present
Journal of Cerebral Blood Flow & Metabolism	2016 – present
Journal of Magnetic Resonance Imaging	2016 – present

Abstract Reviewer

International Society for Magnetic Resonance in Medicine 2017 - present

MEDIA

Memphis Daily News: www.memphisdailynews.com/news/2017/nov/3/biopsy-breakthrough/

BOOK CHAPTER

Aaryani Tipirneni-Sajja, Sue C. Kaste, Claudia M. Hillenbrand. Magnetic Resonance Imaging in the Pediatric Patient in Haaga: CT and MRI of the Whole Body Sixth edition.

JOURNAL PUBLICATIONS

PubMed Search: [https://www.ncbi.nlm.nih.gov/pubmed?term=\(\(Aaryani%20Tipirneni%5BAuthor%20-%20Full%5D\)%20OR%20Aaryani%20Tipirneni-Sajja%5BAuthor%20-%20Full%5D\)%20OR%20Aaryani%20Tipirneni%5BAuthor%20-%20Full%5D](https://www.ncbi.nlm.nih.gov/pubmed?term=((Aaryani%20Tipirneni%5BAuthor%20-%20Full%5D)%20OR%20Aaryani%20Tipirneni-Sajja%5BAuthor%20-%20Full%5D)%20OR%20Aaryani%20Tipirneni%5BAuthor%20-%20Full%5D)

1. **Tipirneni-Sajja A**, Loeffler RB, Krafft AJ, Sajewski AN, Ogg RJ, Hankins JS, Hillenbrand CM. Ultrashort Echo Time Imaging for Quantification of Hepatic Iron Overload: Comparison of Acquisition and Fitting Methods via Simulations, Phantoms, and In-vivo Data. J Magn Reson Imaging 2018.
2. **Tipirneni-Sajja A**, Song R, McCarville MB, Loeffler RB, Hankins JS, Hillenbrand CM. Automated Vessel Exclusion Technique for Quantitative Assessment of Hepatic Iron Overload by R2*-MRI. J Magn Reson Imaging 2018 Jun;47(6):1542-1551.
3. **Tipirneni-Sajja A**, Krafft AJ, McCarville MB, Loeffler RB, Song R, Hankins JS, Hillenbrand CM. Radial UTE Imaging Removes the Need for Breath-holding in Hepatic Iron Overload Quantification by R2*-MRI. American Journal of Roentgenology 2017 Jul; 209(1):187-194.

4. Krafft AJ, Loeffler RB, Song R, **Tipirneni-Sajja A**, McCarville MB, Robson MD, Hankins JS, Hillenbrand CM. Quantitative Ultrashort Echo Time Imaging for Assessment of Massive Iron Overload at 1.5 and 3 Tesla. *Magn Reson Med* 2017; 78(5):1839-1851.
5. **Tipirneni-Sajja A**, Christensen S, Straka M, Inoue M, Lansberg MG, Mlynash M, Bammer R, Parsons MW, Donnan GA, Davis SM, Albers GW. Prediction of Final Infarct Volume on Subacute MRI by Quantifying Cerebral Edema in Ischemic Stroke. *J Cereb Blood Flow Metab.* 2017; 37(8):3077-3084.
6. **Tipirneni-Sajja A**, Loeffler RB, Oesingmann N, Bissler J, Song R, McCarville B, Jones DP, Hudson M, Spunt SL, Hillenbrand CM. Measurement of glomerular filtration rate by dynamic contrast-enhanced magnetic resonance imaging using a subject-specific two-compartment model. *Physiol Rep.* 2016 Apr; 4(7).
7. Wheeler HM, Mlynash M, Inoue M, **Tipirneni A**, Liggins J, Bammer R, Lansberg MG, Kemp S, Zaharchuk G, Straka M, Albers GW; DEFUSE 2 Investigators. The growth rate of early DWI lesions is highly variable and associated with penumbral salvage and clinical outcomes following endovascular reperfusion. *Int J Stroke* 2015; 10(5):723-9.
8. Inoue M, Mlynash M, Christensen S, Wheeler HM, Straka M, **Tipirneni A**, Kemp SM, Zaharchuk G, Olivot JM, Bammer R, Lansberg MG, Albers GW; DEFUSE 2 Investigators. Early diffusion-weighted imaging reversal after endovascular reperfusion is typically transient in patients imaged 3 to 6 hours after onset. *Stroke.* 2014 Apr; 45(4):1024-8.
9. Inoue M, Mlynash M, Straka M, Kemp S, Jovin TG, **Tipirneni A**, Hamilton SA, Marks MP, Bammer R, Lansberg MG, Albers GW, et al. Clinical outcomes strongly associated with the degree of reperfusion achieved in target mismatch patients: pooled data from the Diffusion and Perfusion Imaging Evaluation for Understanding Stroke Evolution studies. *Stroke.* 2013 Jul; 44(7):1885-90.
10. Wheeler HM, Mlynash M, Inoue M, **Tipirneni A**, Liggins J, Zaharchuk G, Straka M, Kemp S, Bammer R, Lansberg MG, Albers GW, et al. Early diffusion-weighted imaging and perfusion-weighted imaging lesion volumes forecast final infarct size in DEFUSE 2. *Stroke.* 2013 Mar;44(3):681-5
11. Lansberg MG, Straka M, Kemp S, Mlynash M, Wechsler LR, Jovin TG, Wilder MJ, Lutsep HL, Czartoski TJ, Bernstein RA, Chang CW, Warach S, Fazekas F, Inoue M, **Tipirneni A**, Hamilton SA, Zaharchuk G, Marks MP, Bammer R, Albers GW; for the DEFUSE 2 study investigators. MRI profile and response to endovascular reperfusion after stroke (DEFUSE 2): a prospective cohort study. *Lancet Neurol.*, 2012 Oct; 11:860:867
12. Song R, **Tipirneni A**, Loeffler RB, Hillenbrand CM. Evaluation of respiratory liver and kidney movements for MRI navigator gating. *J Magn Reson Imaging* 2011; 33:143–148.

CONFERENCE PUBLICATIONS

1. **Tipirneni-Sajja A**, Hillenbrand CM. Quantitative Susceptibility Mapping Using ARMA Field Map for Assessment of Hepatic Iron Overload. Biomedical Engineering Society Meeting 2018.
2. **Tipirneni-Sajja A**, Song R, McCarville MB, Loeffler RB, Hankins JS, Hillenbrand CM. Automated Vessel Exclusion on Free-Breathing Ultrashort Echo Time Imaging For Assessment of Hepatic Iron Overload By R2*-MRI. International Pediatric Radiology Conjoint Meeting 2018.
3. **Tipirneni-Sajja A**, Loeffler RB, Sajewski AN, Hankins JS, Hillenbrand CM. Ultra-short Echo Time Imaging for Quantification of Hepatic Iron Overload: Comparison of Current Acquisition and Fitting Methods via Simulations and Phantom Data. *Proc Intl Soc Mag Reson Med* 2018.

4. **Tipirneni-Sajja A**, Song R, McCarville MB, Loeffler RB, Hankins JS, Hillenbrand CM. Assessment of Hepatic Iron Content by an Automatic Vessel Exclusion Technique in Patients with Iron Overload. Proc Intl Soc Mag Reson Med 2017.
5. **Tipirneni-Sajja A**, Kercher EM, Loeffler RB, Song R, Robson MD, McCarville MB, Hankins JS, Hillenbrand CM. Does T1 Mapping Provide Additional Information in the Context of Hepatic Iron Overload? Proc Intl Soc Mag Reson Med 2017.
6. **Tipirneni-Sajja A**, Krafft AJ, Taylor B, Loeffler RB, Song R, Artz N, Hankins JS, Hillenbrand CM. Simultaneous Iron and Fat Quantification Using an Auto Regressive Moving Average Model at 1.5T and 3T. Proc Intl Soc Mag Reson Med 2017.
7. Puri L, Hankins JS, Hillenbrand CM, Flanagan J, Kang G, Bi W, **Tipirneni-Sajja A**, Villavicencio M, Loeffler RB. Genetic Modifiers of Iron Overload in Sickle Cell Disease. The American Society of Pediatric Hematology/Oncology (ASPHO) 2017.
8. **Tipirneni-Sajja A**, McCarville MB, Krafft AJ, Loeffler RB, Song R, Goode C, Fortner G, Hankins JS, Hillenbrand CM. Assessment of Free-breathing R2*-UTE for Hepatic Iron Content Quantification in a Sedated Pediatric Cohort. International Pediatric Radiology Conjoint Meeting 2016.
9. **Tipirneni-Sajja A**, Loeffler RB, Oesingmann N, Duan Y, Winchell AM, Song R, McCarville MB, Hudson M, Spunt SL, Hillenbrand CM. A two-compartment model with automatic time interval selection for estimation of GFR using DCE-MRI in cohort of 28 survivors of unilateral Wilms' tumor. Proc Intl Soc Mag Reson Med 2014.
10. Song R, Loeffler RB, **Tipirneni-Sajja A**, Winchell AM, McCarville MB, Hudson M, Spunt SL, Hillenbrand CM. Renal Perfusion by ASL Is Associated with GFR in Long-Term Survivors of Wilms' Tumor. Proc Intl Soc Mag Reson Med 2014.
11. Brost A, Gupta N, Seeger C, **Tipirneni A**, Han Z, Vos SB, Maclaren JR, Straka M, Fischbein NJ, Bammer R. Automatic Alignment for Tumor Assessment. Proc Intl Soc Mag Reson Med 2013.
12. Inoue M, Wheeler HM, Mlynash M, **Tipirneni A**, Straka M, Kemp SM, Zaharchuk G, Bammer R, Lansberg MG, Albers GW; DEFUSE 2 investigators. Early DWI Reversal Following Endovascular Reperfusion Is Typically Transient. Stroke 2013.
13. Inoue M, Lansberg MG, Mlynash M, Straka M, Kemp SM, **Tipirneni A**, Bammer R, Marks MP, Albers GW. Clinical Outcome Strongly Associated with the Degree of Endovascular Reperfusion Achieved in Target Mismatch. Stroke 2013.
14. Marks MP, Lansberg MG, Mlynash M, Straka M, Kemp SM, Inoue M, **Tipirneni A**, McTaggart R, Zaharchuk G, Bammer R, Albers GW. Correlation of AOL recanalization, TIMI reperfusion and TICI reperfusion with infarct growth and clinical outcome in the DEFUSE 2 Trial. Stroke 2013.
15. Marks MP, Lansberg MG, Mlynash M, Olivot J, Straka M, Kemp S, McTaggart R, Inoue M, **Tipirneni A**, Zaharchuk G, Bammer R, Albers GW. Impact of Collateral Blood Flow on Clinical Presentation, Diffusion and Perfusion Imaging, Infarct Growth and Clinical Outcome in the DEFUSE 2 Trial. Stroke 2013.
16. Wheeler HM, Mlynash M, Inoue M, **Tipirneni A**, Liggins J, Mishra NK, Zaharchuk G, Straka M, Kemp S, Bammer R, Lansberg MG, Albers GW. The Growth Rate of Early DWI Lesions is Highly Variable and Associated with Penumbra Salvage and Clinical Outcomes Following Endovascular Reperfusion. Stroke 2013.
17. **Tipirneni A**, Straka M, Lansberg MG, Mlynash M, Bammer R, Albers GW. A Novel Method for Quantification of Brain Edema in Ischemic Stroke. Stroke 2012.

18. Albers G, Straka M, Kemp S, Mlynash M, Jovin T, Wechsler L, Wilder M, Lutsep H, Keogh B, Bernstein R, Chang C, Warach S, Fazekas F, Thai D, Inoue M, **Tipirneni A**, Hamilton S, Zaharchuk G, Marks M, Bammer R, Lansberg MG. Results of DEFUSE 2: imaging endpoints. Stroke 2012.
19. Mlynash M, Lansberg MG, Straka M, Kemp S, Wechsler LR, Jovin TG, Wilder MJ, Lutsep HL, Czartoski T, Bernstein RA, Chang CW, Warach S, Fazekas F, Thai D, Inoue M, **Tipirneni A**, Hamilton SA, Zaharchuk G, Marks MP, Bammer R, Albers GW. The DEFUSE 2 Investigators. The Malignant MRI profile: Implications for Endovascular Therapy. Stroke 2012.
20. Duan Y, Loeffler RB, Song R, **Tipirneni A**, Spunt S, Oesingmann N, Viano A, Hillenbrand CM. A Robust Method for Reducing Inflow Artifacts in the Arterial Input Function of Dynamic Contrast Enhanced Data Sets. Proc Intl Soc Mag Reson Med 2011.
21. **Tipirneni A**, Song R, Loeffler RB, Hillenbrand CM. Evaluation of the relationship between respiratory hepatic and renal motion using real-time MRI. Proc Intl Soc Mag Reson Med 2009.