

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
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NAME Sheila Dawn Keilholz	POSITION TITLE Assistant Professor		
eRA COMMONS USER NAME SHELLA			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Missouri—Rolla, Rolla, MO	BS	1993-1997	Physics
University of Virginia, Charlottesville, VA	PHD	1997-2001	Engineering Physics
National Institutes of Health	Post-doctoral training	2001-2004	Neuroimaging

A. Positions and Honors.

Positions and Employment

2001-2004 Research Fellow, National Institute of Neurological Disorders and Stroke, NIH
2004- Assistant Professor of Biomedical Engineering, Emory University, Atlanta, GA

Professional Memberships

1993- Member, American Physical Society
1999- Member, International Society for Magnetic Resonance in Medicine
2002- Member, Society for Neuroscience

Honors

2000-2002 Student Stipend, International Society for Magnetic Resonance in Medicine
2000 Student Stipend, Gordon Research Conference
2001 Kerry Exely Award, University of Virginia Medical Imaging Program
2003 Fellows Award for Research Excellence, National Institutes of Health

B. Selected peer-reviewed publications (in chronological order).

1. Perfusion of the Kidney Using Extraslice Spin Tagging (EST) Magnetic Resonance Imaging. SS Berr, KD Hagspiel, VM Mai, **SD Keilholz-George**, J Knight-Scott, JM Christopher, DJ Spinosa, JF Angle, AH Matsumoto. *J Magn Reson Imag* 10:886-891; 1999.
2. 1H Magnetic Resonance Imaging of Human Lung Using Inversion Recovery Turbo Spin Echo. VM Mai, J Knight-Scott, RR Edelman, Q Chen, **SD Keilholz-George**, SS Berr. *J Magn Reson Imag* 11:616-621;2000.
3. Temporal Dynamics of Blood Flow Effects in Half-Fourier Fast Spin Echo 1H Magnetic Resonance Imaging of the Human Lungs. J Knight-Scott, **SD Keilholz-George**, VM Mai, JM Christopher. *J Magn Reson Imag* 14(4):411-418;2001.
4. Gravity-Dependent Perfusion of the Lung Demonstrated with the FAIRER Arterial Spin Tagging Method. **SD Keilholz-George**, J Knight-Scott, JM Christopher, VM Mai, SS Berr. *Magn Reson Imag* 19(7):929-935;2001.
5. A Theoretical Analysis of the Effect of Imperfect Slice Profiles on Tagging Schemes for Pulsed Arterial Spin Labeling MRI. **SD Keilholz-George**, J Knight-Scott, SS Berr. *Magn Reson Med* 46(1):141-148;2001.

6. The Use of Reduced-Encoding by Generalized-Series Reconstruction (RIGR) to Obtain Arterial Spin Labeling MR Images of Cerebral Blood Flow at Higher Spatial and Temporal Resolution. AC Silva, **S Keilholz**, A Tableman, FE Boada, and AP Koretsky. Syllabus Book of Workshop on Minimum MR Data Acquisition Methods: Making More with Less, Marco Island, FL, October 20-21, 2001. p. 34-37 (2001).
7. Comparison of First-Pass Gd-DOTA and FAIRER MR Perfusion Imaging in a Rabbit Model of Pulmonary Embolism. **SD Keilholz**, VM Mai, SS Berr, N Fujiwara, KD Hagspiel, M.D. *J Magn Reson Imag* 16:168-171; 2002.
8. MRI Detection of Regional Blood Flow Using Arterial Spin Labeling. AP Koretsky, SL Talagala, **S Keilholz**, AC Silva (2004) in "Clinical Magnetic Resonance Neuroimaging: Diffusion, Perfusion, and Spectroscopy", ed. J Gilliard, A Waldman, P Barker. Cambridge University Press, Cambridge, UK. 2005.
9. Functional MRI of the Rodent Somatosensory Pathway Using Multi-slice Echo Planar Imaging. **SD Keilholz**, AC Silva, M Raman, H Merkle, AP Koretsky. *Magn Reson Med* 52:89-99; 2004.
10. *BOLD- and CBV-weighted Functional MR Imaging of the Rat Somatosensory System.* **SD Keilholz**, AC Silva, M Raman, H Merkle, AP Koretsky. *Magn Reson Med* 55:316-324; 2006.

C. Current and Pending Research Support

The Wallace H. Coulter Translational/Clinical Research Seed Grant Program 2005

9/1/05-8/31/07 Keilholz and Fox

Improved Focal Radiotherapy Treatment of High-grade Gliomas with Magnetic Resonance Spectroscopy-Aided Target Delineation

This project aims to identify spectroscopic biomarkers of tumor aggression that can be used to improve the targeting of focal radiotherapy.

Role: Co-PI

Center for Behavioural Neuroscience Venture Funds

8/1/05-8/31/07 Davis, Keilholz, Ressler

Effects of fear conditioning on manganese-enhanced circuit tracing in an identified neural circuit.

This project involves developing MRI methods to image neural networks that are active during learning.

Role: Co-PI