Matthew J. Riffe

University Hospitals of Cleveland
11100 Euclid Avenue / Bolwell B-100
Cleveland, OH 44106
(216) 844 – 4169
matthew.riffe@case.com

Education

Case Western Reserve University, Cleveland, OH 2006 – Pres.
Graduate Research Fellow, Department of Biomedical Engineering
Research Advisor: Mark A. Griswold, Ph.D.
Expected Graduation: Master – May 2007, PhD – May 2010

Case Western Reserve University, Cleveland, OH 2002 – 2006
B.S., Biomedical Engineering, *Summa Cum Laude*

Work Experience

Dept. Radiology, University Hospitals Cleveland 08/05 – Pres.
Dept. Biomedical Engineering, Case Western Reserve University
Graduate Research Fellow, Case Center for Imaging Research
Research Advisor: Mark A. Griswold, Ph.D.
Research interests include the development of wireless microcoil catheter technology used in MRI interventional procedures.

Molecular and Functional Imaging Dept., Cleveland Clinic Foundation 01/05 – 07/05
Research Student, Co-op Student
Research Advisor: Frank DiFilippo, Ph.D.
Developed innovative acquisition and reconstruction algorithms for small animal microSPECT imaging. Designed portable cost-effective apparatus for microSPECT imaging and created user-friendly GUI interface with IDL to be used with apparatus.

Dept. Biomedical Engineering, Case Western Reserve University 08/03 – 12/04
Research Scientist, Magnetic Resonance and Molecular Imaging Center
Research Advisor: Marty Pagel, Ph.D.
Characterized and developed MRI CEST contrast agents in application with tumor angiogenesis and cellular apoptosis. Investigated and modeling DCE MRI contrast agent cellular uptake using MATLAB.

Peer-reviewed Publications

DiFilippo FP, Riffe MJ, Harsch KM, McCabe P, Heston WD. "Detached multipinhole small animal SPECT device with real-time calibration." *IEEE Transactions on Nuclear Science* 2006. 53(5): 2605-2612.

Conference Proceedings

Heidenreich JO, Derakhshan JJ, Paul S, Nour SG, Riffe MJ, Griswold MA, Duerk JL, Sunshine JL. "Intravascular imaging of the carotid artery using a combined stent and imaging catheter in a porcine model." *Proceedings of the 45th ASNR* 2007, Chicago, Illinois (accepted)

Heidenreich JO, Derakhshan JJ, Paul S, Nour SG, Riffe MJ, Griswold MA, Duerk JL, Sunshine JL. Intravaskuläre MRT der A. carotis mittels kombiniertem Stent- und Imaging-Katheter am Schweinemodel. *Fortschr Röntgenstr* 2007 (accepted)

Riffe MJ, Heilman JA, Griswold MA. "Power scavenging circuit for wireless DC power." Poster 3273, *Proceedings of the Fifteenth ISMRM* 2007, Berlin, Germany.

Riffe MJ, Blaimer M, Barkauskas KJ, Duerk JL, Griswold MA. "SNR estimation in fast dynamic imaging using bootstrapped statistics." Poster 1879, *Proceedings of the Fifteenth ISMRM 2007*, Berlin, Germany.

Heilman JA, Riffe MJ, Heid O, Griswold MA. "High power, high efficiency on-coil current-mode amplifier for parallel transmission arrays." Talk 171, *Proceedings of the Fifteenth ISMRM* 2007, Berlin, Germany.

Heidenreich JO, Paul S, Derakhshan JJ, Nour SG, Riffe MJ, Griswold MA, Duerk JL, Sunshine JL. "Intravascular imaging of the carotid artery using a combined stent and imaging catheter in a porcine model." Poster 3111, *Proceedings of the Fifteenth ISMRM* 2007, Berlin, Germany.

Heidenreich JO, Paul S, Derakhshan JJ, Nour SG, Riffe MJ, Griswold MA, Duerk JL, Sunshine JL. "Intravascular imaging of the carotid artery using a combined stent and imaging catheter in a pig model." Talk 22, *Proceedings of the Sixth Interventional MRI Symposium* 2006, Leipzig, Germany.

Heidenreich JO, Derakhshan JJ, Paul S, Riffe MJ, Heilman JA, Rafie S, Wehbe C, Zuehlsdorff S, Nour S, Griswold MA, Duerk JL, Sunshine JL. Intravascular high resolution MR vessel wall imaging of the carotid artery in a pig model. *RSNA* 2006, Chicago, Illinois.

DiFilippo FP, Riffe MJ. "Accuracy of auto-calibration for pinhole micro-SPECT." *IEEE Nuclear Science Symposium Conference Record* 2005. 1782-1785.

Teaching Experience

Fall 2006	Teacher's Assistant – EBME 105 Introduction to Biomedical Engineering, Department of Biomedical Engineering
2007 – present	High School Math and Science Tutor, The Whole Kid, LLC.

Awards and Achievements

Jose Ricardo Alcala Memorial Award for Undergraduate Research	May 2006
Gamma Alpha Sigma Greek Honor Society	October 2005
Tau Beta Pi Engineering Honor Society	April 2005
Undergraduate Biomedical Engineering Summer Research Award	June 2002