BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
DelaBarre, Lance	Assistant Professor of Radiology
eRA COMMONS USER NAME (credential, e.g., agency login) ldelabarre	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
North Dakota State University, Fargo, ND	B.S.	1991 - 1995	Major: Physics Minors: Chemistry, Math
University of Minnesota, Minneapolis, MN	Ph.D.	1995 - 2001	Biophysical Sciences and Medical Physics

A. Personal Statement

My areas of interest are pulse sequence design, cardiac imaging, parallel transmission, and RF coil performance and safety. Additional specific skills that I bring to this project are extensive experience in programming, data analysis, and RF coil evaluation. In this project I will assist in the final stages of coil development, evaluate coil performance, and acquire MR data for dissemination and reporting.

B. Positions and Honors

Positions and Employment

1991 – 1995 NDSU: Presidential Scholarship
1995 – 2001 University of Minnesota: (CMRR, Dept. of Radiology) Graduate Research Assistant
2001 - 2004 Adiabatics, Inc.: NMR Automation Computer Programmer Programmed Varian high-resolution NMR spectrometers to use custom pulse sequences based on Adiabatic RF pulses, and to automate data-acquisition processing.
2004 - 2008 University of Minnesota: (CMRR, Dept. of Radiology) Post-Doctoral Assistant
2008 – present University of Minnesota: (Radiology/Medical School) Assistant Professor

Other Experience and Professional Memberships

1996 - present International Society of Magnetic Resonance in Medicine
2008 - present Society for Cardiovascular Magnetic Resonance

Honors

1991 - 1995 North Dakota: North Dakota Scholars Program Mathematics
1995 NDSU: Ralph L. Pitman Memorial Award Outstanding Graduate Senior in Science and Mathematics

C. Selected Peer-reviewed Publications (in chronological order)

1. DelaBarre L, Garwood M. LASER: Adiabatic single shot localization with J-refocusing. Proceedings 6th Scientific Meeting, International Society for Magnetic Resonance in Medicine; 1998; Sydney, Australia.
2. Garwood M, DelaBarre L. The return of the frequency sweep: designing adiabatic pulses for contemporary NMR. J Magn Reson. 2001;153(2):155-77.
3. Vaughan JT, Garwood M, Collins CM, Liu W, DelaBarre L, Adriany G, et al. 7T vs. 4T: RF power, homogeneity, and signal-to-noise comparison in head images. Magn Reson Med. 2001;46(1):24-30.
4. DelaBarre L. Magnetic resonance spectroscopy & imaging methodology for measuring tumor pathophysiology [Ph.D.]. Minneapolis, MN: University of Minnesota; 2001.
5. Vaughan JT, Adriany G, Garwood M, Yacoub E, Duong T, DelaBarre L, et al. A Detunable Volume Coil for High Field NMR. Magn Reson Med. 2002;47(5):990-1000.
6. Vaughan J, Adriany G, Snyder C, Tian J, Thiel T, Bolinger L, et al. Efficient high-frequency body coil for high-field MRI. Magn Reson Med. 2004;52:851-9.
7. Park JY, DelaBarre L, Garwood M. Improved gradient-echo 3D magnetic resonance imaging using pseudo-echoes created by frequency-swept pulses. Magn Reson Med. 2006;55(4):848-57.

8. Vaughan T, DelaBarre L, Snyder C, Mangia S, Tian J, Waks M, et al. Whole Body Imaging at 7T with a 16 Channel Body Coil and B1 Shimming. Proceedings 16th Scientific Meeting, International Society for Magnetic Resonance in Medicine; 2008 April; Toronto.
9. DelaBarre L, Weale p, Snyder C, van de Moortele P, Metzger G, Zuehlsdorff S, et al. Cardiac Cine: Advances at 7T. Proceedings 17th Scientific Meeting, International Society for Magnetic Resonance in Medicine; 2009 April; Honolulu.
10. Snyder C, DelaBarre L, Tian J, Akgun C, Metzger G, Moeller S, et al. Using Separated Volume Transmit and Local Receiver Arrays for Body Imaging at 7T. Proceedings 17th Scientific Meeting, International Society for Magnetic Resonance in Medicine; 2009 April; Honolulu.
11. Snyder CJ, DelaBarre L, Metzger GJ, van de Moortele PF, Akgun C, Ugurbil K, et al. Initial results of cardiac imaging at 7 Tesla. Magn Reson Med. 2009;61(3):517-24. PMCID: 2939145.
12. Vaughan JT, Snyder CJ, DelaBarre LJ, Bolan PJ, Tian J, Bolinger L, et al. Whole-body imaging at 7T: Preliminary results. Magn Reson Med. 2009;61(1):244-8. PMCID: 2875945.
13. Suttie JJ, DelaBarre L, Pitcher A, van de Moortele PF, Dass S, Snyder CJ, Francis JM, Metzger GJ, Weale P, Ugurbil K, Neubauer S, Robson M, Vaughan T. 7 Tesla (T) human cardiovascular magnetic resonance imaging using FLASH and SSFP to assess cardiac function: validation against 1.5 T and 3 T. NMR in Biomedicine. 2012;25(1):27-34.
14. Snyder CJ, DelaBarre L, Hess A. Rodgers C, Robson M, Vaughan JT. A Separated Transmit-only, Receive-only Array for Body Imaging at 7T with Automated Tuning and Matching Capabilities. Proceedings 21st Scientific Meeting ISMRM; 2013 Salt Lake City. Submitted.
15. DelaBarre L, Myer D, Vaughan JT. Multi-Channel, In-bore Power Amplifiers for Multi-channel Coil at 7T. Proceedings 21st Scientific Meeting ISMRM; 2013 Salt Lake City. Submitted.

D. Research Support

Ongoing Research Support

NIH EB006835 PI: Vaughan 08/15/2007 – 10/31/2016
Human MRI to 9.4T and Beyond

NIH R01 EB007327 PI: Vaughan 04/01/2007 – 01/31/2016
RF Safety for Ultra-High Field MRI

P41RR008079 PI: Ugurbil 06/01/2008 - 05/31/2013
NMR Imaging and Localized Spectroscopy
NIH (Core IV PI: Vaughan)
Core IV of this program grant aims to develop hardware, safety, and RF engineering solutions for 7T and 9.4T human MRI.

P41RR008079 PI: Ugurbil 06/01/2008 - 05/31/2013
NMR Imaging and Localized Spectroscopy
NIH (Core II PI: Metzger)
Core II of this program grant aims to develop 7T body applications for prostate, heart, liver, kidney and other clinically relevant targets.

Completed Research Support

NIH R01 EB00895 PI: Vaughan 08/01/2004 - 07/30/2010
Minimizing RF Losses in High Field MR Head Imaging

S10 RR 25437 PI: Vaughan 05/01/2009 - 04/30/2010
A Multi-Mode, Multi-Channel Transmitter for 9.4T NMR