

Victoria Lee Morgan, Ph.D.

Address: Department of Radiology and Radiological Sciences
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Nashville TN 37232-2675

Education:

1994 - 1996 **Vanderbilt University**, Nashville, TN
Ph.D. Biomedical Engineering
December 1996

1992 - 1994 **Vanderbilt University**, Nashville, TN
M.S. Biomedical Engineering
May 1994

1986 - 1990 **Wright State University**, Dayton, OH
B.S. Biomedical Engineering
Cum Laude, August 1990

Doctoral Dissertation: Phase Contrast MRI Evaluation of Three Dimensional Blood
Flow Patterns in the Pulmonary Circulation Post Fontan

Master's Thesis: Linear Optimization Techniques Applied to MRI Phase
Contrast Blood Flow Measurements

Professional Experience:

7/00 - present **Department of Radiology and Radiological Sciences,**
Vanderbilt University Medical Center, Nashville, TN
Assistant Professor – functional MRI, diffusion tensor, cardiac MRI
and image processing research

9/99 – 7/00 **Department of Radiology and Radiological Sciences,**
Vanderbilt University Medical Center, Nashville, TN
Instructor – develop functional MRI protocols and image analysis
methods, coordinate fMRI projects throughout the University, develop
pulse sequences, investigate image realignment and position tracking
methods for fMRI

9/97 – 8/99 **Department of Radiology and Radiological Sciences,**
Vanderbilt University Medical Center, Nashville, TN
Senior Research Assistant - develop experimental protocols and image
analysis software for functional MRI studies of brain activation.

Projects include collaborations with the Departments of Psychiatry, Neuroscience, Genetics and Human Development.

1/97 - 9/97
Resonance,

Consultative Services for Center for Cardiovascular Magnetic

Division of Cardiology, Barnes-Jewish Hospital at Washington University Medical Center, St. Louis, MO

Cardiac image analysis software designer - modified image analysis software using PV-WAVE (Visual Numerics, Inc.) for stress and strain estimation in the left ventricle. Responsibilities include modifying and writing new software and writing user's manual for software for use by engineers and cardiologists.

6/95 - 12/96

Department of Radiology and Radiological Sciences,

Vanderbilt University Medical Center, Nashville, TN

Clinical cardiac MRI image analyst - Supervised image acquisition and calculated ventricular parameters including volume and mass. Provided radiologist with report which includes patient data and their comparison to normal ranges.

1994 - 1995

Department of Radiology and Radiological Sciences,

Vanderbilt University Medical Center, Nashville, TN

Study Coordinator, "*A Phase III Clinical Evaluation of the Safety and Efficacy of SonoRx in Patients Highly Suspected of Having Abdominal Pathology*", Bracco Diagnostics. Helped in the patient recruitment process. Organized and completed case report forms for each participant.

1990 - 1992

**Inland Fisher Guide Division - General Motors Corporation
Impact Test Facility, Dayton, OH**

Test Engineer - Developed test procedures and hardware for supplemental inflatable restraints, child restraints and steering wheels. Tested, developed, and maintained anthropomorphic test devices (crash dummies). Served on various Society of Automotive Engineers committees.

**Professional Honors
and Memberships:**

Radiological Society of North America, Associate Member
International Society of Magnetic Resonance in Medicine, member
Journal of Magnetic Resonance in Medicine, manuscript reviewer
IEEE Transactions in Medical Imaging, manuscript reviewer
International Society of MR in Medicine abstract reviewer 1999-
present
American Heart Association, grant reviewer 2001

NIH Training Grant 5T32 HL07411-16, Vanderbilt University, 1995-1996

Society of Magnetic Resonance student stipend, 1994

Patricia Roberts Harris Fellowship, Vanderbilt University 1992-1995

Bibliography:

Manuscripts:

Parks MH, Morgan VL, Pickens DR, Price RR, Dietrich MS, Martin PR. Alcoholism-Associated Motor Inefficiency Demonstrated By fMRI. *Alcoholism: Clinical and Experimental Research*,

Sachdev RNS, Champney GC, Lee H, Price RR, Pickens III DR, Morgan VL, Stefansic JD, Melzer P, Ebner FF. Experimental Model for Functional Magnetic Resonance Imaging of Somatic Sensory Cortex in the Unanesthetized Rat, *NeuroImage*, 2003, in press.

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Morgan VL, Pickens DR, Hartmann SL, Price RR. Comparison of Functional MRI Realignment Tools Using a Computer Generated Phantom. *Magnetic Resonance in Medicine*, 2001;46(3):510-514..

Skerl D., Pan S., Li R., Fitzpatrick J.M., Parks M., Martin P.R., Morgan V.L. and 4, Dawant B.M., " Correction of Geometric Distortions in EP Images Using Non-rigid Registration to Corresponding Anatomic Images", Proc. SPIE Vol. 4322, p. 58-68, Medical Imaging 2001: Image Processing, Milan Sonka; Kenneth M. Hanson; Eds.

Grossman ED, Donnelly M, Price R, Morgan V, Pickens D, Neighbor G, Blake R. Brain Areas Involved in Perception of Biological Motion. *Journal of Cognitive Neuroscience*, 2000;12, 711-720.

Mertz H, Morgan V, Tanner G, Pickens D, Price R, Shyr Y, Kessler R. Regional Cerebral Blood Flow in IBS and Controls with Painful and Non-Painful Rectal Distention. *Gastroenterology*, 2000;118:842-848

Lorenz CH, Walker ES, Morgan VL, Klein SS, Graham TP. Quantification of Normal Human Right and Left Ventricular Mass, Systolic Function, and Gender Differences by Cine Magnetic Resonance Imaging. *Journal for Cardiovascular Magnetic Resonance*, 1999;(1)1:7-21.

Morgan VL, Graham TP, Roselli RJ, Lorenz CH. Alterations in Pulmonary Artery Flow Patterns and Shear Stress in Fontan Patients Determined With Three Dimensional Phase Contrast MRI. *The Journal of Thoracic and Cardiovascular Surgery*, 1998;116:294-304. .

Morgan VL, Roselli RJ, Lorenz CH. Normal Three Dimensional Pulmonary Artery Flow Determined By Phase Contrast MRI. *Annals of Biomedical Engineering*, 1998;(26):557-566.

Morgan VL, Price RR, Lorenz CH. Application of Linear Optimization Techniques to MRI Phase Contrast Blood Flow Measurements. *Magnetic Resonance Imaging* 1996;14(9): 1043-1051.

Abstracts:

Morgan VL, Abou-Khalil B, Modur P, Wushensky C, Price RR. MRI Functional Connectivity to Lateralize Temporal Lobe Epilepsy. *Tenth Scientific Meeting of the International Society for Magnetic Resonance in Medicine* 2002:1536.

Stefansic J, Morgan VL, Hardin D, Melzer P, Ebner F. Temporal Frequency Analysis of fMRI Time Courses of Braille Readers with Continuous Wavelet Transform. *Tenth Scientific Meeting of the International Society for Magnetic Resonance in Medicine* 2002:1434.

Mertz HR, Pickens D, Fass R, Morgan VL. Stress Increases Sensitivity to Rectal Distention in IBS but not Controls subjects, associated with greater limbic system activation. *American Gastroenterology Association* 2002.

Morgan, VL and Price RR. MRI Functional Connectivity to Distinguish Primary and Secondary Pathways. *Ninth Scientific Meeting of the International Society for Magnetic Resonance in Medicine* 2001:1166.

Morgan, VL and Price RR. Dependence of Functional Connectivity on Functional State of the Brain. *Ninth Scientific Meeting of the International Society for Magnetic Resonance in Medicine* 2001:1194.

Morgan VL, Pickens DR, Hartmann SL, Riddle WR, Price RR. Software Phantom for Assessment of Functional MRI Realignment Algorithms. *Radiology* 2000; 217(P):311.

Scarfone, C., Morgan, V., Rohde, G.K., Patton, J.A., and Sandler, M.P., Combined functional and anatomical imaging for conformal radiotherapy, *J Nucl Med*, 41, P273, (2000).

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Flanery, M.A., Shelton, A.L., Palmeri, T.J., Morgan, V.L., Price, R.R., & Pickens, D.R (2000, April). A Functional Brain Imaging Study of Perceptual Categorization. Paper presented at the 7th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Morgan VL, Pickens DR, Hartmann SL, Price RR. Comparison of Functional MRI Image Realignment Tools Using a Computer Generated Phantom. *Eighth Scientific Meeting of the International Society for Magnetic Resonance in Medicine* 2000:848.

Mertz H, Morgan V, Tanner G, Pickens D, Price R, Shyr Y, Kessler R. The Effects of Psychologic Symptoms and Anticipation on Cerebral Activation During Rectal Pain in IBS and Controls. *Gastroenterology* 2000; v118:A844.

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Flanery, M.A., Shelton, A.L., Palmeri, T.J., Morgan, V.L., Price, R.R., Pickens, D.R (1999, November). Functional Brain Imaging of Novel Object Classification. Paper presented at 7th Annual Workshop on Object Perception and Memory, Los Angeles, CA.

Mertz H, Tanner G, Morgan V, Pickens D, Price R, Kessler R. Functional MRI Detects Activation of Anterior Cingulate and Prefrontal Cortex in IBS Patients But Not Controls During Rectal Pain. *Gastroenterology* 1999; 116(4):A1041.

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Melzer P, Pickens DR, Price RR, Morgan VL, Symons FJ, Wall RS. Reading Braille Predominantly Activates Extrastriate Cortex in Persons with Severe Visual Disability: A fMRI Study. *Sixth Scientific Meeting of the International Society for Magnetic Resonance in Medicine*, 1998:1514.

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