

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Vikas Gulani	POSITION TITLE Instructor (Assistant Professor appointment pending)		
eRA COMMONS USER NAME Gulani			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of California, Los Angeles	B.S.	1987-91	Chemical Engineering
University of Illinois, Urbana-Champaign	M.S.	1991-94	Physiology
University of Illinois, Urbana-Champaign	Ph.D.	1991-98	Physiology
University of Illinois, College of Medicine at Urbana	M.D.	1991-2000	Medicine

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

**A. Positions and Honors.** List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

**Research and Professional Experience**

12/88 – 6/91 Research Assistant, Department of Chemical Engineering, University of California at Los Angeles

6/91 – 8/91 Process Engineer, Fluor Daniel Corporation

8/91 – 5/93 Teaching Assistant, Dept. of Physiology and Biophysics, University of Illinois at Urbana-Champaign

1/00 – 6/01 Instructor, Clinical Tutorials, 2nd year medical curriculum, University of Illinois College of Medicine

6/00 – 6/01 Resident, Department of Internal Medicine, University of Illinois College of Medicine

6/92 – 6/01 Pre and Postdoctoral Fellow, Graduate Research Assistant, Biomedical Magnetic Resonance Laboratory, University of Illinois at Urbana-Champaign

7/01 – 6/05 Resident, Department of Radiology, University of Michigan, Ann Arbor

7/03 – 6/04 Postdoctoral Fellow under Profs. Andrew Webb, Peter Jakob, and Axel Haase, Department of Physics, Universität Würzburg, Germany

7/05 – 7/06 Clinical Fellow in Body MRI, Department of Radiology, University of Michigan, Ann Arbor

7/06 – present Instructor, Department of Radiology, University Hospitals of Cleveland, Department of Radiology, Case Western Reserve University

**Selected Honors and Awards**

1987, Alumni Scholarship, University of California, Los Angeles

1987 – 1991, Regents Scholarship, University of California, Los Angeles

1988, Elected to Tau Beta Pi (Engineering Honor Society)

1991, Best Senior Design Project in Chemical Engineering, University of California, Los Angeles

1993, Incomplete List of Teachers Rated as Excellent by Their Students, University of Illinois, Urbana-Champaign

**Selected Honors and Awards (contd.)**

1999, Swarz-Flood Award for Outstanding Oral Presentation at Medical Scholars Program Research Symposium  
1999, Bloomfield Fellowship for Outstanding Medical Scholar at the University of Illinois College of Medicine, Urbana-Champaign  
1995 – 2000, M.D./Ph.D. predoctoral fellowship from National Institute of Mental Health (NIMH) - National Research Service Award (NRSA)  
2004, Finalist, Amersham Health/ISMRM Fellowship Program in Magnetic Resonance Imaging  
2004 and 2005, Outstanding Resident Award for Excellence in Research or Clinical Radiology, University of Michigan, Department of Radiology  
2006 RSNA Roentgen Research Fellow Award, University of Michigan, Department of Radiology

**B. Selected peer-reviewed publications (in chronological order).** Do not include publications submitted or in preparation.

- V. Gulani, G. A. Iwamoto, H. Jiang, J. S. Shimony, A. G. Webb, P. C. Lauterbur, A Multiple Echo Pulse Sequence for Diffusion Tensor Imaging and its Application in Excised Rat Spinal Cords, *Magn. Reson. Med.*, 38:868-873, 1997.
- V. Gulani, G. A. Iwamoto, P. C. Lauterbur, Apparent Water Diffusion Measurements in Electrically Stimulated Neural Tissue, *Magn. Reson. Med.*, 41:241-246, 1999.
- J. R. Gardner, C. P. Hess, R. W. Tsika, A. G. Webb, M. J. Dawson, V. Gulani, Characterization of Mouse Tibia Morphology Following Hind-Limb Suspension Using MRI Microscopy, *Magn. Reson. Med.*, 45:1122-1125, 2001.
- V. Gulani, A. G. Webb, I. D. Duncan, P. C. Lauterbur, Diffusion Anisotropy in Myelin Deficient Rat Spinal Cords, *Magn. Reson. Med.*, 45:191-195, 2001.
- B. M. Damon, C. D. Gregory, K. L. Hall, H. J. Stark, V. Gulani, M. J. Dawson, Intracellular Acidification and Volume Increases Explain  $R_2$  Decrease in Exercising Muscle, *Magn. Reson. Med.*, 47:14-23, 2002.
- P. Schmitt, M. A. Griswold, P. M. Jakob, M. Kotas, V. Gulani, M. Flentje, A. Haase, Inversion Recovery TrueFISP: Quantification of  $T_1$ ,  $T_2$ , and Spin Density *Magn. Reson. Med.*, 51:661-667, 2004
- V. Gulani, P. Schmitt, M. A. Griswold, A. G. Webb, P. M. Jakob, Towards a Single Sequence Magnetic Resonance Imaging Neurological Examination: Multiple-Contrast Images from a Single IR True-FISP Experiment, *Investigative Radiology*, 39:767-774, 2004.
- V. Gulani, High Field Human Imaging, *Applied Radiology*, S1:75-83, 2005.
- H Hussain, T. L. Chenevert, F. J. Londy, V. Gulani, S. Swanson, B. McKenna, H. Appelman, S. Adusumilli, J. Greenson, H. Conjeevaram, MR Imaging for Quantitative Measurement and Display of Hepatic Fat Fraction - Early Experience, *Radiology*, 237:1048-1055, 2005.
- V. Gulani, T. Weber, T. Neuberger, A. G. Webb, Improved Time Efficiency and Accuracy in Diffusion Tensor Microimaging with Multiple Echo Acquisition, *J. Magn. Reson.*, 177:32-335, 2005.
- P. Schmitt P., M. A. Griswold, V. Gulani., A. Haase, M. Flentje, P. M. Jakob, A Simple Geometrical Approach for Assessment of the TrueFISP Transient and Steady State Signal, *Magn. Reson. Med.*, 55:177-186, 2006.
- V. Gulani and P. C. Sundgren, Diffusion Tensor Magnetic Resonance Imaging, *Journal of Neuro-Ophthalmology*, 26:51-60, 2006.
- A. Vazquez, E. Cohen, V. Gulani, L. Hernandez, Y. Zheng, G. Lee, S.-G. Kim, J. Grotberg, D. Noll, Vascular Dynamics and BOLD fMRI: CBF Level Effects and Analysis Considerations, *NeuroImage*, 32:1642-55, 2006.
- T. Neuberger, V. Gulani, A. G. Webb, Sodium renal imaging in mice at high magnetic fields, *Magn Reson Med*, 2007;58(5):1067-1071.
- V. Gulani, S. Adusumilli, H. K. Hussain, A. L. Vazquez, I. R. Francis, D. C. Noll, Apparent Wall Thickening of Cystic Renal Lesions on MRI, in press, *J Magn Reson Imag*, 2008

**C. Research Support.** List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

**Active**

K12RR023264/1KL2RR024990 07/01/2007 -- 07/31/2009  
NIH/NCRR K12 Multidisciplinary Clinical Research Training Program (MCRTTP),  
Direct costs (for VG): ~\$125,000/year.  
Development and advancement of diffusion imaging methods for application in body diffusion imaging.  
Role: Scholar

**Inactive**

NIMH MD/PhD pre and postdoctoral NRSA Grant No. 5 F30 MH11041-05; 01/95 – 07/01  
The goal of this project was to explore the use of diffusion and magnetization transfer contrast for imaging neural function.  
Role: PI