

**BIOGRAPHICAL SKETCH**

NAME	BAOWEI FEI, Ph.D.			POSITION TITLE	Assistant Professor
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)					
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY		
Case Western Reserve University, Ohio	DOD Postdoctoral Traineeship Award	2001-2003	Molecular Imaging		
Shanghai Jiao Tong University, Shanghai	Ph.D.	1995-1998	Biomedical Engineering		
Case Western Reserve University, Ohio	M.S.	2001-2003	Computing & Information Science		
Xi'an Jiaotong University, Xi'an	M.S.	1992-1995	Biomedical Engineering		
Xi'an Jiaotong University, Xi'an	B.S. (Obtained at 18 years old)	1986-1990 (Started at 14 years old)	Biomedical Engineering		

**A. Positions and Honors.** Include present membership on any Federal Government public advisory committee.

- 2005- Assistant Professor, Department of Biomedical Engineering, Case Western Reserve University
- 2005- Member of Case Comprehensive Cancer Center, Case Western Reserve University, Ohio
- 2005- Assistant Professor, Department of Radiology, School of Medicine, Case Western Reserve University
- 2001-2004 Senior Research Associate, Department of Biomedical Engineering, Case Western Reserve University, Ohio
- 2000-2001 Research Associate, Department of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio
- 1998-2000 Research Fellow, Biomedical Engineering Research Center, Nanyang Technological University, Singapore
- 1995-1998 Research Assistant, Department of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai
- 1993-1995 Principal Engineer, Department of Research & Development, Zhuhai Biolight Co. LTD., Guangdong
- 1990-1993 Engineer, Research Institute of Shanghai Medical Electronics Co. LTD., Shanghai

**Professional Organizations:**

- 2006 Secretary of IEEE Cleveland Biomedical Imaging Group (CBIG), a local chapter affiliated with IEEE National Societies: Engineering in Medicine and Biology, Computer, Signal Processing, Nuclear and Plasma Sciences
- 2003-2004 Associate Editor, *Medical Physics*
- 2000-2006 Reviewer of international journals: *IEEE Transaction on Biomedical Engineering*, *Journal of Magnetic Resonance Imaging*, *IEEE Transaction on Medical Imaging*, *IEEE Transaction on Nuclear Science*, *Academic Radiology*, *Medical Physics*, *Cerebral Cortex*, *Journal of Neuroscience Methods*, *International Journal of Biomedical Engineering*, *Lasers in Surgery and Medicine*.
- 2004-2006 Reviewer of international conferences: IEEE International Symposium on Biomedical Imaging: From Nano to Macro, IEEE Engineering in Medicine and Biology Society, IEEE Nuclear and Plasma Sciences Society
- 2002 Judge and Coordinate of the 24<sup>th</sup> International Conference of IEEE Engineering in Medicine and Biology - Student Paper Competition Imaging Track
- 2001-2005 Member of the Institute of Electrical and Electronic Engineers, Inc. (IEEE), Radiological Society of Northern America (RSNA), Member of the International Society for Optical Engineering (SPIE), IEEE Engineering in Medicine and Biology Society (EMBS), Society of Nuclear Medicine
- 2005-2010 Board Directors of the Chiao/Jiao Tong University Alumni Association in America (CTUAAA) and President of CTUAAA Tristate Chapter (Ohio, Pennsylvania, and West Virginia)

**Selected Awards and Honors (Selected from 16):**

- 2006 Research Work was selected by the US Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP) as an example of excellent research funded by the Department of Defense Prostate Cancer Research Program (PCRP).
- 2006 Research work is highlighted on the DoD (<http://cdmrp.army.mil/highlights/>), CDMRP (<http://cdmrp.army.mil/>) and PCRP (<http://cdmrp.army.mil/pcrp/default.htm>), and Case BME (<http://bme.case.edu/>) website homepages.
- 2003 Research work on prostate cancer imaging was highlighted in the 2003 Annual Report of US Department of Defense Congressionally Directed Medical Research Programs. ("The Annual Report is provided to various military and government officials including those in the Office of the Surgeon General. It is also used to provide information to the American public and to respond to requests for information about DOD funded research.")
- 2001 Postdoctoral Traineeship Award, US Department of Defense (DOD) Prostate Cancer Research Program  
Grant title: "Molecular Imaging for SPECT/MRI-guided Minimally Invasive Treatment of Prostate Cancer"

- 1997 The Outstanding Young Investigator Award in Biomedical Engineering of the Year 1997 in Shanghai, The Society of Biomedical Engineering of Shanghai. (“to that member who did outstanding research in biomedical engineering”)
- 1993 The Science and Technology Award, Department of Education, China. (“In recognition of the significant contribution to the advancement of science and technology to the project that led to significant invention in technology and science in this nation”)
- 1992 The Significant Award in Science and Technology, National Administration Bureau for Medical Instrumentation and Pharmacy (FDA), China. (“In recognition of the significant achievements during the development of the National Seventh-Five-Year Key Technologies in science and technology”)
- 1990 Admitted to the Extraordinary Youth Program of Xi’an Jiaotong University at 14 years of age in 1986 and obtained the B.S. Degree in Biomedical Engineering at the age of 18 in 1990.

## B. Selected peer-reviewed publications (Selected from 28 peer-reviewed publications)

1. **BW Fei**, JL Duerk, DB Sodee, DL Wilson. “Three-dimensional semiautomatic warping registration of the prostate and pelvis,” *Academic Radiology*, Vol. 12, pp. 815-824, 2005
2. **BW Fei**, HS Wang, RF Muzic, CA Flask, NL Oleinick, DL Wilson, JL Duerk, “Deformable and Rigid Registration of microPET and High-resolution MR Images for Photodynamic Therapy in Mice,” *Medical Physics*, (In Press) 2006
3. P Faulhaber, **BW Fei**, DB Sodee, “ProstaScint/CT fusion improvement of accuracy to planar/SPECT imaging analysis of 49 prostate cancer patients,” *Molecular Imaging and Biology*, (Submitted) 2005
4. **BW Fei**, JS Suri, DL Wilson, “Three-dimensional volume registration of carotid MR images,” *Studies in Health Technology and Informatics*, Vol. 113, pp. 394-411, 2005.
5. L Mahta, P Faulhaber, JF Greskovich, JK ODonnell, **BW Fei**, “Software-based PET/CT fusion consistency in head and neck cancer patients and application in radiation therapy planning,” *Journal of Nuclear Medicine*, (Submitted) 2005
6. K Bogie, X Wang, **BW Fei**, J Sun, “Getting more out of pressure: A new interface for pressure analysis,” *IEEE Transactions on Biomedical Engineering*, (Revision) 2005
7. **BW Fei**, Z Lee, JL Duerk, JS Lewin, DB Sodee, DL Wilson, “Registration and Fusion of SPECT, High Resolution MRI, and interventional MRI for Thermal Ablation of the Prostate Cancer,” *IEEE Transactions on Nuclear Science*, Vol. 51, No.1, pp. 177-183, 2004.
8. **BW Fei**, JL Duerk, DT Boll, JS Lewin, DL Wilson, “Slice to volume registration and its potential application to interventional MRI guided radiofrequency thermal ablation of prostate cancer,” *IEEE Transactions on Medical Imaging*, Vol. 22, No. 4, pp. 515-525, 2003.
9. **BW Fei**, Z Lee, JL Duerk, DL Wilson, “Image Registration for Interventional MRI Guided Procedures: Similarity Measurements, Interpolation Methods, and Applications to the Prostate,” Peer-reviewed paper in *Lecture Notes in Computer Science (LNCS)* Vol. 2717, pp. 321-329, Springer-Verlag Berlin Heidelberg, 2003.
10. **BW Fei**, Z Lee, DT Boll, JL Duerk, JS Lewin, DL Wilson, “Image Registration and Fusion for Interventional MRI Guided Thermal Ablation of the Prostate Cancer,” Peer-reviewed paper in *Lecture Notes in Computer Science* Vol. 2879, pp. 364-372, Springer-Verlag Berlin Heidelberg, 2003.
11. **BW Fei**, C Kemper, DL Wilson, “A comparative study of warping and rigid body registration for the prostate and pelvic MR volumes,” *Computerized Medical Imaging and Graphics*, Vol. 27, pp.267-281, 2003
12. **BW Fei**, JL Duerk, DL Wilson, “Automatic 3d registration for interventional MRI-guided treatment of prostate cancer,” *Computer Aided Surgery*, Vol. 7, No.5, pp. 257-267, 2002.
13. **BW Fei**, A Wheaton, Z Lee, JL Duerk, DL Wilson, “Automatic MR volume registration and its evaluation for the pelvis and prostate,” *Physics in Medicine and Biology*, Vol. 47, pp. 823-838, 2002.
14. **BW Fei**, WS Ng, S Chauhan, CK Kwoh, “The safety issues of medical robotics,” *Reliability Engineering and System Safety*, Vol. 73, No. 2, pp. 183-192, Jul. 2001.

## Book Chapters

1. **BW Fei**, JS Suri, DL Wilson, “Three-Dimensional Rigid and Non-Rigid Image Registration for the Pelvis and Prostate,” In: Editors: JS Suri, DL Wilson, S Laxminarayan, *Handbook of Medical Image Analysis Volume III: Registration Models*, pp. 103-150, Kluwer Academic/Plenum Publishers, New York, NY, 2005.
2. **BW Fei**, DL Wilson, “Computational Techniques for Volume Registration in the Evaluation of Interventional MRI Treatments,” In: Editor C. Leondes, *Medical Imaging Systems*, World Scientific Publishing Co., Inc., River Edge, NJ, 2005.
3. **BW Fei**, JS Suri, DL Wilson, “Three-Dimensional Automatic Volume Registration of Carotid MR Images,” In: Editors J Suri, C Yuan, DL Wilson, S Laxminarayan, *Plaque Imaging: Pixel to Molecular Level*, pp. 394-411. IOS Press, Inc. Fairfax, VA, 2005.
4. JS Suri, **BW Fei**, DL Wilson, “Future of Image Registration,” In: Editors: JS Suri, DL Wilson, S Laxminarayan, *Handbook of Medical Image Analysis Volume III: Registration Models*, pp. 535-554, Kluwer Academic/Plenum Publishers, NY, 2005.
5. JS Suri, V Pappu, O Salvado, **BW Fei**, S Laxminarayna, SX Zhang, JS Lewin, JL Duerk, DL Wilson, “Accurate Lumen Identification, Detection and Quantification in MR Plaque Volumes,” In: Editors: JS Suri, DL Wilson, S Laxminarayan, *Handbook of Medical Image Analysis: Advanced Segmentation*, Kluwer Academic/Plenum Publishing, New York, 2005.