

**Xin Yu, Sc.D.****EDUCATION**

- 1986 B.Sc. in Electrical Engineering  
University of Sciences and Technology of China
- 1990 M.S. in Electrical Engineering  
The Johns Hopkins University, Baltimore, MD
- 1996 Sc.D. in Radiological Sciences,  
Harvard-MIT Division of Health Sciences and Technology, Cambridge, MA

**POSTDOCTORAL TRAINING**

- 1996-1999 Research Associate in Radiology, Duke University Medical Center

**ACADEMIC APPOINTMENT**

- 1999-2001 Instructor in Medicine, Washington University School of Medicine, St. Louis, MO
- 2001-2004 Affiliate Lecturer in Biomedical Engineering, Washington University, St. Louis, MO
- 2001-2004 Research Assistant Professor of Medicine, Washington University School of Medicine,  
St. Louis, MO
- 2004- Associate Professor of Biomedical Engineering, Case Western Reserve University,  
Cleveland, OH

**HONORS AND AWARDS**

- 1989-1990 Wolman Fellowship of W.G.C. Whiting School of Engineering, The Johns Hopkins  
University
- 1993-1994 Clement Vaturi Fellowship in Biomedical Engineering, Massachusetts Institute of  
Technology

**PUBLICATIONS**

- Lewandowski ED, LA Damico, LT White, X Yu. Cardiac responses to induced lactate oxidation: NMR analysis of metabolic equilibria. *Am. J. Physiol.* **38**: H160-H168, 1995.
- Yu X, LT White, C Doumen, LA Damico, KF LaNoue, NM Alpert, ED Lewandowski. Kinetic analysis of dynamic <sup>13</sup>C NMR spectra: metabolic flux, regulation, and compartmentation in hearts. *Biophysical J.* **69**: 2090-2102, 1995.
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- Damico LA, LT White, X Yu, ED Lewandowski. Chemical versus isotopic equilibrium and the metabolic fate of glycolytic end products in the heart. *J. Mol. Cell Cardiol.* **28**: 989-999, 1996.
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- Lewandowski ED, X Yu, KF LaNoue, LT White, C Doumen, JM O'Donnell. Altered metabolite exchange between subcellular compartments in intact postischemic rabbit hearts. *Circ. Res.* **81**: 165-175, 1997.

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- O'Donnell JM, C Doumen, KF LaNoue, LT White, X Yu, NM Alpert, ED Lewandowski. Dehydrogenase regulation of metabolite oxidation and efflux from mitochondria in intact hearts. *Am. J. Physiol.* **274**: H467-H476, 1998.
- Yu X, SK Song, J Chen, MJ Scott, RJ Fuhrhop, CS Hall, PJ Gaffney, JJH Ackerman, SA Wickline, GM Lanza. High resolution MRI characterization of human thrombus using a novel fibrin-targeted paramagnetic nanoparticle contrast agent. *Magn. Reson. Med.* **44**: 867-872, 2000.
- GM Lanza, DR Abendschein, X Yu, PM Winter, K Karukstis, MJ Scott, RW Fuhrhop, DE Scherrer, SA Wickline. Molecular imaging and targeted drug delivery with a novel, ligand-directed paramagnetic nanoparticle technology. *Acad Radiol.* **9**:S330-1, 2002.
- GM Lanza, X Yu, PM Winter, DR Abendschein, KK Karukstis, MJ Scott, LK Chinen, RW Fuhrhop, D Scherrer, SA Wickline. Targeted antiproliferative drug delivery to vascular smooth muscle cells with a magnetic resonance imaging nanoparticle contrast agent: implications for rational therapy of restenosis. *Circulation.* **106**: 2842-2847, 2002.
- PM Winter, SD Caruthers, X Yu, S-K Song, RW Fuhrhop, S Love, J Chen, B Miller, JWM Bulte, SA Wickline, GM Lanza. Relaxivity of paramagnetic nanoparticles for molecular imaging depends on chelate conformation. *Magn. Reson. Med.* **50**:411-416, 2003.
- J Chen, S Song, W Liu, M McLean, S Allen, J Tan, SA Wickline, X Yu. Alterations in myocardial fiber structure in post-infarct remodeled rat heart observed with diffusion tensor MRI. *Am. J. Physiol.* **285**:H946-H954, 2003.
- AM Morawski, PM Winter, X Yu, RW Fuhrhop, MJ Scott, F Hockett, JD Robertson, PJ Gaffney, GM Lanza, SA Wickline. Quantitative "magnetic resonance immunocytochemistry" with ligand-targeted  $^{19}\text{F}$  nanoparticles. *Magn. Reson. Med.* **52**:1255-1262, 2004
- W Liu, J Chen, S Ji, JS Allen, PV Bayly, SA Wickline, X Yu. HARP MRI tagging for direct quantification of Lagrangian strain in rat hearts after myocardial infarction. *Magn. Reson. Med.* **52**:1282-1290, 2004.