SUMMARY VITA- Mary E. Loveless, Ph.D
Adjunct Faculty of Electrical Engineering

Education

Vanderbilt University, Biomedical Engineering	Ph.D.	Nov 2010
Vanderbilt University, M.S., Biomedical Engineering,	M.S.	Dec 2008
University of Tennessee Chattanooga, Computer Engineering	B.S.	May 2005

Academic Experience

Adjunct Instructor, Electrical Engineering at UT Chattanooga, 8/1/14 - Present

Instructor

School for Science and Math at Vanderbilt, Vanderbilt University, 01/11 – Present

- Responsible for curriculum development, class management, lesson instruction in math and science, and advisement for high school students ranging from 9th – 12th grade (~100 students).

Graduate Research Assistant

Department of Biomedical Engineering at Vanderbilt University, 08/06 – 10/10

Teaching Assistant

Vanderbilt Summer Academy at Vanderbilt University, 07/09 – 07/09

- Assisted in teaching and organizing a hands-on laboratory for gifted children (ages 12-13) in a course involving basic imaging and imaging physics

Teaching/Laboratory Assistant

Department of Biomedical Engineering at Vanderbilt University, 08/05 – 08/06

- Held weekly recitations (individually prepared) to a class of ~50 students (junior/senior level) and held office hours and help sessions for class work. Additionally, I assisted in setting up and running the weekly optics lab (~15 students).

Publication

1. Loveless ME, Lawson, D, Collins, M, Reimer C, Huszar D, Halliday J, Waterton J, Gore JC, and Yankeelov TE. Correlation of Quantitative Tissue Characteristics Derived from DCE-MRI, DW-MRI and Histology in Murine Tumors. [In preparation for submission, 2014].
2. Whisenant JG, Sorace AG, McIntyre JO , Kang H, Sánchez V, Loveless ME , and Yankeelov TE. Evaluating treatment response using DW-MRI and DCE-MRI in trastuzumab responsive and resistant HER2-overexpressing human breast cancer xenografts. [Submitted to Neoplasia, 2014].
3. Whisenant JG, Ayers GD, Loveless ME, Barnes SL, Colvin DC, Yankeelov TE. Assessing reproducibility of diffusion-weighted magnetic resonance imaging studies in a murine model of HER2+ breast cancer. Magn Reson Imaging. 2014; 32(3):245-9.
4. Fluckiger JU, Loveless ME, Barnes SL, Lepage M, Yankeelov TE. A diffusion-compensated model for the analysis of DCE-MRI data: theory, simulations and experimental results. Physics in Medicine and Biology, 2013; 58(6):1983-98.
5. Barnes SL, Whisenant JG, Loveless ME, Yankeelov TE. Practical Dynamic Contrast Enhanced MRI in Small Animal Models of Cancer: Data Acquisition, Data Analysis, and Interpretation. Pharmaceutics, 2012; 4(3):442-478.

6. Barnes SL, Whisenant JG, Loveless ME, Ayers GD, Yankeelov TE. Assessing the reproducibility of dynamic contrast enhanced magnetic resonance imaging in a murine model of breast cancer. Magn Reson Med. 2013; 69(6):1721-34.
7. Loveless ME, Lawson D, Collins M, Nadella MV, Reimer C, Huszar D, Halliday J, Waterton JC, Gore JC, Yankeelov TE. Comparisons of the efficacy of a Jak1/2 inhibitor (AZD1480) with a VEGF signaling inhibitor (cediranib) and sham treatments in mouse tumors using DCE-MRI, DW-MRI, and histology. Neoplasia, 2012; 14(1):54-64.
8. Atuegwu NC, Colvin DC, Loveless ME, Xu L, Gore JC, Yankeelov TE. Incorporation of diffusion- weighted magnetic resonance imaging data into a simple mathematical model of tumor growth. Physics in Medicine and Biology, 2012; 57(1):225-40.
9. Loveless ME, Halliday J, Liess C, Xu L, Dortch R, Whisenant J, Waterton JC, Gore JC, Yankeelov TE. A Quantitative Comparison of the Influence of Individual versus Population-Derived Vascular Input Functions on DCE-MRI in Small Animals. Magnetic Resonance in Medicine, 2012; 67(1):226-36.
10. Smith DS, Welch EB, Li X, Arlinghaus LR, Loveless ME, Koyama T, Gore JC, Yankeelov TE. Quantitative effects of using compressed sensing in dynamic contrast enhanced MRI. Physics in Medicine and Biology, 2011; 56(15): 4933-46.
11. Li X, Welch EB, Chakravarthy AB, Xu L, Arlinghaus L, Farley J, Loveless ME, Mayer I, Kelley M, Meszoely I, Means-Powell J, , Gore JC, and Yankeelov TE. A Novel AIF Detection Method and a Comparison of DCE-MRI Parameters Using Individual and Population Based AIFs in Human Breast Cancer. Physics in Medicine and Biology, 2011; 56(17):5753-69.
12. Colvin DC, Loveless ME, Does MD, Kost SD, Yue Z, Yankeelov TE, Gore JC. Earlier Detection of Tumor Treatment Response Using Magnetic Resonance Diffusion Imaging with Oscillating Gradients. Magnetic Resonance Imaging, 2011; 29(3):315-23.

Professional Organizations:

1. American Society for Engineering Education, 2012-Present
2. Society for Women in Engineering, 2012-Present
3. International Society for Magnetic Resonance in Medicine, 2008-2011
4. American Institute of Ultrasound in Medicine, 2007-2008