

Walter Lee Murfee, Ph.D.

Present Position:

Associate Professor, J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida

Education/Training/Previous Positions:

2014-2017 Associate Professor, Department of Biomedical Engineering, Tulane University
2007-2014 Assistant Professor, Department of Biomedical Engineering, Tulane University
2005-2007 Postdoctoral Training, University of California – San Diego
2005 Ph.D., University of Virginia
1999 B.S., Massachusetts Institute of Technology

Honors/Awards:

MCS Travel Award for Outstanding Young Investigators (The Microcirculatory Society); Award for Excellence in Lymphatic Research (The Microcirculatory Society); Biomedical Engineering Teacher of the Year Award (Tulane University); Tulane Newcomb Fellow; August Krogh Young Investigator Travel Award; Benjamin Zweifach Student Award

Current Funding:

2016-2020 NIH 1R01AG049821, "Angiogenesis Model for Aging Research" (Role: PI)

Grant Review:

NIH HM Study Section (Ad-Hoc Grant Reviewer); NIH Study Section, Special Emphasis Panel Review for Small Business Innovation Research (SBIR) Phase I (R34) & Fast Track/Phase II (R44) Applications; South Carolina EPSCoR Program; NIH PTHE Study Section (Mail-In Grant Reviewer); AHA, Vas Bio & Blood Pressure BSc Fellowship Committee; U.S. Army Medical Research and Materiel Command, Peer Reviewed Medical Research Program (PRMRP); NIH BTSS Study Section (Ad-Hoc Grant Reviewer); National Sciences and Engineering Research Council of Canada, Discovery Grants Program; AHA, Vascular BioBP BSc2

Peer Review:

Nature Biomedical Engineering, Circulation, Integrative Biology, FASEB, Scientific Reports, Journal of Physiology, Microcirculation, Lymphatic Research and Biology, American Journal of Physiology: Heart and Circulatory Physiology, Journal of Applied Physiology, Annals of Biomedical Engineering, PLOS One, Microvascular Research, Journal of Vascular Research, American Journal of Pathology, Cell Biochemistry and Function, Cardiovascular Research, Journal of Visualized Experiments, Journal of Diabetes and Its Complications, Journal of Materials Chemistry B, Biomedical Optics Express, Biochemical Engineering Journal, BMC Physiology, Vascular Pharmacology, Physical Review E., Biomechanics and Modeling in Mechanobiology, Comprehensive Physiology

Editorial Board:

Microcirculation (Associate Editor); *BMC Physiology* (Associate Editor); *Frontiers in Computational Physiology and Medicine*

Professional Societies:

The Microcirculatory Society; North American Vascular Biology Organization; American Heart Association; American Association of Anatomists; AEMB Biomedical Engineering Student National Honors Society; American Society for Engineering Education; American Physiological Society; Biomedical Engineering Society

Professional Activities (MCS Related):

2017-Present Programs and Meetings Committee (Chair)
2017-Present The Gabor Kaley Memorial Lectureship Award Committee (Co-Chair)
2017-Present Associate Editor, *Microcirculation*
2017-Present 11th World Congress for Microcirculation, Scientific Advisory Committee
2015-2017 Secretary
2014-2015 Council Member
2017 Co-chair of the Session, entitled "Engineering Vascular Morphogenesis," at Vascular Biology 2017 – Monterey, CA
2016-2017 Guest Editor, *Microcirculation*, Special Issue: New and Emerging Tools for Studying the Microvasculature - Microfluidics in Vascular Research
2016 Co-chair of the Session, entitled "Microcirculation," at the 19th International Vascular Biology Meeting – Boston, MA
2015-2017 Co-chair of the Young Investigator's Poster Session at Experimental Biology 2015 – Boston, MA
2014 Development Committee
2014 Chair of the Session, entitled "Molecular and Cellular Dynamics of Angiogenesis," at Vascular Biology 2014 – Monterey, CA
2014 Co-chair of the Session, entitled "MCS President's Symposium II: Rapid Fire," at Experimental Biology 2014 – San Diego, CA
2013 Chair of the Session, entitled "Pericyte Modulation of Microvascular Function," at Vascular Biology 2013 – Hyannis, MA
2013 Co-chair of the Microcirculatory Society Young Investigator Symposium Session at Experimental Biology (EB) 2013 – Boston, MA
2012-2014 Publications Committee
2009-2012 Membership Committee

Research Interests:

My passion is making scientific discoveries and developing new bioengineering approaches for connecting tissue level function to integrated cellular dynamics. Specifically, our laboratory applies *in vivo*, *in vitro*, and computational approaches to investigate the vascular patterning and the functional relationships between angiogenesis and other processes, such as lymphangiogenesis and neurogenesis. Our work provides valuable insight for the engineering of functional vascularized tissues and for understanding vascular dysfunction associated with age related pathological conditions.

Personal Statement:

The Microcirculatory Society is a home, an environment where interdisciplinary perspectives are shared by engineers, physiologists, computational biologists, and clinicians. The benefits of my participation have been far reaching over the years and my now broad network of colleagues and friends across research areas is evidence of the synergism it promotes. My main objective as president would be to increase opportunities and improve exposure for members. Serving as Councilor, Secretary, and currently as Chair of the Programs and Meetings Committee, I have promoted the exchange of scientific opinions through "Talking Science," influenced the format of our annual meeting, increased member involvement, and helped increase our scientific footprint at other meetings. I have also increased our society's interaction with *Microcirculation* and am currently working on formalizing a relationship that links the journal to a symposium at our annual meeting and provides our society a dedicated special topic issue. As president, I will humbly continue my efforts to increase the opportunities for all members and to be an advocate for the society's historical strength and future potential.