

## ELIZABETH G. LOBOA

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### **Education**

PH.D. MECHANICAL ENGINEERING, JUNE 2002  
*Stanford University, Stanford, CA*

M.S.E. BIOMECHANICAL ENGINEERING, DECEMBER 1997  
*Stanford University, Stanford, CA*

B.S. MECHANICAL ENGINEERING, JUNE 1995  
*University of California, Davis, CA*

### **University Leadership and Service**

Provost and Vice President for Academic Affairs, Southern Methodist University, 2020 - present  
Vice Chancellor for Strategic Partnerships, University of Missouri, 2018 – 2020  
Dean and Ketcham Professor of the College of Engineering, University of Missouri, 2017 – 2020  
Dean, College of Engineering, University of Missouri, 2015 – 2020  
UM System Review Committee for Excellence in Research and Creative Works, University of Missouri System, Columbia, 2018 – 2020  
Council of Leaders, University of Missouri System, Columbia, 2018 – 2020  
MU Engagement Council, University of Missouri, Columbia, 2018 – 2020  
Translational Precision Medicine Complex (TPMC, now called NextGen Precision Health Institute) Academic and Research Programming Group, University of Missouri System and University of Missouri, Columbia, 2018 – 2020  
Coordinator, Precision Medicine Summit, University of Missouri System, Columbia, 2018  
University of Missouri System Taskforce for Innovation, Entrepreneurship, Technology Commercialization and Industry Partnership, 2017 – 2020  
Board of Directors, Missouri Innovation Center, 2016 – 2020  
Co-Chair, University of Missouri, Chancellor Search Committee, 2017  
Associate Chair/Department Head, UNC/NCSU Joint Department of Biomedical Engineering, 2013 – 2015  
Biomedical Engineering Department Lead, NCSU Building Future Faculty Program, 2013 – 2015  
Strategic Science Task Force, North Carolina State University, 2011 - 2012  
Chair, Graduation Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2006 – 2015  
Chair, Biomaterials Graduate Curriculum Committee, UNC/NCSU Joint Dept. of Biomedical Engineering and NCSU Dept. of Materials Science & Engineering, 2009 – 2011  
Core Leader, Translational Regenerative Medicine core, Center for Comparative Medicine and Translational Research, North Carolina State University, 2014 – 2015  
Strategic Planning Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2013 – 2015  
Internal University Program Reviewer, Department of Physiology, North Carolina State University, 2014 – 2015  
Chair, Biomaterials and Tissue Engineering Curriculum Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2004 – 2005  
Co-Chair, NCSU Regenerative Medicine Interest Group, 2012 – 2015  
College Leadership Survey Committee, North Carolina State University, 2011 – 2012  
Faculty Workload Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2005 – 2007  
Executive Committee, Center for Comparative Medicine and Translational Research, North Carolina State University, 2011 – 2015

Co-PI and Search Committee, Translational Regenerative Medicine Cluster Hire, North Carolina State University  
 Colleges of Engineering, Textiles, and Veterinary Medicine, 2012 – 2013  
 College of Engineering Faculty Development Committee, North Carolina State University, 2008 – 2011  
 Research Advisory Board, Department of Orthopaedics, UNC-Chapel Hill, NC, 2009 – 2015  
 Chair Search Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2007 – 2009  
 Research Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2007 – 2011  
 Search Committee, Rehabilitation Engineering Center Director, North Carolina State University, 2009  
 Advisory Committee, Tissue Mechanics Laboratory, North Carolina State University, 2003 – 2015  
 Faculty Search Committees (multiple), North Carolina State University and University of North Carolina at  
 Chapel Hill, 2004 – 2015  
 Selected Participant, Bridges Academic Leadership Program, 2011  
 Selected Participant, NSF Advance Leadership Workshop, 2011  
 Executive Committee, Sigma Xi, 2010 – present  
 Departmental Representative, Biotechnology Program, UNC/NCSU Joint Department of Biomedical  
 Engineering, 2005 – 2015  
 Course and Curriculum Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2003 – 2005  
 Graduate Admissions Committee, UNC/NCSU Joint Department of Biomedical Engineering, 2004 – 2009

### **Leadership and Service to the Profession: Board Membership, Committee and Symposia Contributions**

Member, Global Engineering Deans Council, 2019 – 2020  
 Member, American Society for Engineering Education Task Force on Graduate Education, 2019 – present  
 Advisory Council, Education Counsel Societies Consortium on Sexual Harassment in STEMM, American  
 Association for the Advancement of Science, 2019 – present  
 Director, Deans Council Executive Board, American Society for Engineering Education, 2019 – 2020  
 Ex-officio Member, Engineering Deans Council Public Policy Committee, American Society for Engineering  
 Education, 2019 – present  
 Advisory Board, AAU Strategy for Sexual Harassment and Gender Discrimination, 2019 – 2020  
 Nominations Committee, American Institute for Medical and Biological Engineering (AIMBE), 2018 – present  
 Executive Council, Tissue Engineering and Regenerative Medicine International Society – Americas (TERMIS-  
 AM), 2017 – present  
 Strategic Initiatives Committee, Orthopaedic Research Society, 2016 – 2017  
 Chair, Biomedical Engineering Society (BMES) Cellular and Molecular Bioengineering Special Interest Group  
 Council, 2016  
 Chair Elect, Biomedical Engineering Society (BMES) Cellular and Molecular Bioengineering Special Interest  
 Group Council, 2015  
 Member-at-Large and Orthopaedic Research Society Board Member, Orthopaedic Research Society, 2015 – 2017  
 Internal Advisory Committee of NASA Specialized Center of Research (NSCOR) at Wake Forest University,  
 2015 – present  
 Governing Council, BMES Special Interest Group in Cell and Molecular Bioengineering (CMBE, previously  
 SPRBM), 2011 – present  
 Endorsement Committee, Tissue Engineering and Regenerative Medicine International Society (TERMIS), 2011  
 – 2017  
 Executive Committee, Sigma Xi Scientific Research Society, 2010 – present  
 Steering Committee, North Carolina Tissue Engineering and Regenerative Medicine Society (NCTERMS), 2007  
 – 2015  
 Solids Technical Committee, American Society of Mechanical Engineers Bioengineering Division, 2007 – present  
 Session Chair and Moderator, multiple sessions at Annual Meetings of the Biomedical Engineering Society,  
 Orthopaedic Research Society, Tissue Engineering and Regenerative Medicine International Society,  
 BMES-Cellular and Molecular Bioengineering Conference, North Carolina Tissue Engineering and  
 Regenerative Medicine Society, Hilton Head Regenerative Medicine Conference, ASME Summer

Bioengineering Conference, Nanofibers for the 3<sup>rd</sup> Millennium, Institute of Biological Engineering *et al.*, 2007 – present

Reviewer and Judge, multiple abstracts at Annual Meetings of the Biomedical Engineering Society, Orthopaedic Research Society, Tissue Engineering and Regenerative Medicine International Society, BMES-Cellular and Molecular Bioengineering Conference, North Carolina Tissue Engineering and Regenerative Medicine Society, ASME Summer Bioengineering Conference, *et al.*, 2007 – present

Session Chair, 2017 BMES-Cellular and Molecular Bioengineering (CMBE) Conference: *Stem Cell Engineering and MechanoMicroenvironment for Regenerative Medicine*

Conference Chair, 2015 BMES-Cellular and Molecular Bioengineering (CMBE) Conference: *From Womb to Tomb: Mechanobiology of Generation, Regeneration, and Degeneration*

Chair, Nanotechnology and Tissue Engineering: Hope or Hype? New Horizon Workshop, 2014 Annual Meeting of the Orthopaedic Research Society

Conference Co-Chair, 2014 BMES-Cellular and Molecular Bioengineering (CMBE) Conference

Track Chair, Biomedical Engineering, ASME ESDA 2014 Biennial Conference

Program Committee and Session Chair, 2014 Swine in Biomedical Research International Conference

Organizing Committee and Poster Chair, 2<sup>nd</sup> International Tissue Science & Regenerative Medicine Conference, Raleigh NC, 2013

Program Committee, Nanofibers for the 3<sup>rd</sup> Millennium: A Summit of the World's Leaders in Nanofibers, 2010

Discussion Leader, Musculoskeletal Biology & Bioengineering Gordon Research Conference, 2010

Local Planning Committee, Annual Meeting of the Institute of Biological Engineering, 2008

Conference Chair, 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference, 2008

Chair, *Tissue Engineering Parts A, B, and C* Young Investigator Council, 2013 – present

Editorial Board, *Current Stem Cell Reports*, 2015 – present

Editorial Board, *Scientific Reports*, *Nature Publishing Group*, 2014 – present

Editorial Board, *Biomedical Materials*, 2014 – present

Editorial Board, *Tissue Engineering Parts A, B, and C*, 2012 – 2019

Editorial Board, *Open Orthopaedics Journal*, 2011 – present

### **Professional Experience**

2020 – PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS, Southern Methodist University, Dallas, TX

2018 – 20 VICE CHANCELLOR FOR STRATEGIC PARTNERSHIPS, University of Missouri, Columbia, MO

2017 – 20 DEAN AND KETCHAM PROFESSOR OF THE COLLEGE OF ENGINEERING, University of Missouri, Columbia, MO

2015 – 20 DEAN AND PROFESSOR OF BIOENGINEERING, University of Missouri, Columbia, MO

2015 – 20 ADJUNCT PROFESSOR, Joint Department of Biomedical Engineering at UNC-Chapel Hill and NC State University; Department of Materials Science and Engineering, NC State University, Raleigh, NC

2015 FOUNDER, PrecisiBand, Raleigh, NC.

2003 – 15 DIRECTOR, Cell Mechanics Laboratory, Joint Department of Biomedical Engineering at UNC-Chapel Hill and NC State University, Raleigh, NC

2014 – 15 ADJUNCT PROFESSOR, Departments of Biotechnology, Physiology, and Fiber and Polymer Science, North Carolina State University, Raleigh, NC; Department of Orthopaedics and Curriculum in Oral Biology, UNC-Chapel Hill, Chapel Hill, NC

2014 – 15 PROFESSOR, Joint Department of Biomedical Engineering at UNC-Chapel Hill and NC State University; Department of Materials Science and Engineering, NC State University, Raleigh, NC

2013 – 15 ASSOCIATE CHAIR, Joint Department of Biomedical Engineering at UNC-Chapel Hill and NC State University, Raleigh, NC

2010 – 14 ASSOCIATE PROFESSOR, Department of Materials Science and Engineering, North Carolina State University, Raleigh, NC

- 2009 – 14 ASSOCIATE PROFESSOR, Joint Department of Biomedical Engineering at UNC-Chapel Hill and NC State University, Raleigh, NC
- 2009 – 14 ADJUNCT ASSOCIATE PROFESSOR, Departments of Biotechnology, Physiology, and Fiber and Polymer Science, North Carolina State University, Raleigh, NC; Department of Orthopaedics and Curriculum in Oral Biology, UNC-Chapel Hill, Chapel Hill, NC
- 2006 – 09 ADJUNCT ASSISTANT PROFESSOR, Fiber and Polymer Science, College of Textiles, North Carolina State University, Raleigh, NC
- 2005 – 09 ADJUNCT ASSISTANT PROFESSOR, Orthopaedics Department, UNC-Chapel Hill, Chapel Hill, NC
- 2003 – 09 ASSISTANT PROFESSOR, Joint Department of Biomedical Engineering at UNC-Chapel Hill and NC State University, Raleigh, NC
- 2002 – 03 ACTING ASSISTANT PROFESSOR, Department of Mechanical Engineering, Stanford University, Stanford, CA
- 1997 – 02 RESEARCH ASSISTANT AND PH.D. CANDIDATE, Biomechanical Engineering Division, Department of Mechanical Engineering, Stanford University, Stanford, CA
- 1996 – 00 BIOMEDICAL ENGINEER, Rehabilitation Research and Development Center, Veterans Administration Health Care System, Palo Alto, CA
- 1995 – 97 RESEARCH ASSISTANT AND M.S. CANDIDATE, Biomechanical Engineering Division, Department of Mechanical Engineering, Stanford University, Stanford, CA

### Invited Lectures

1. **Loboa EG.** Invited speaker for ‘Universities of the Future: Building Institutional Resilience, Social Responsibility and Community Impact’ (July 2021). International Institute for Higher Education Research & Capacity Building (IIHed) of O.P. Jindal Global University (JGU). India.
2. **Loboa EG.** Q&A with Bioengineering Student Society - Lyle School of Engineering (Nov 2020) Southern Methodist University. Dallas, TX.
3. **Loboa EG.** A Conversation with Provost Loboa (Oct 2020). SMU Faculty Club. Southern Methodist University. Dallas, TX.
4. **Loboa EG.** Road to R-1 (Oct 2020). Economics Department Meeting. Southern Methodist University. Dallas, TX.
5. **Loboa EG.** Panelist for ‘Time to Lead: Women in STEM Forge the Way’ (Oct 2020). WittKieffer.
6. **Loboa EG.** Symposium on Engineering Teaching Excellence (Dec 2019). College of Engineering Dean’s Council for Teaching Excellence. University of Missouri. Columbia, MO.
7. **Loboa EG.** Importance of Tirelessly Supporting Innovation at Universities (Nov 2019). Women in Innovation and Technology Luncheon. Washington University. St. Louis, MO.
8. **Loboa EG.** Moderator, Working with Men to Change Perceptions and Break Down Barriers (Nov 2019). The Global Women in STEM Leadership Summit. Atlanta, GA.
9. **Loboa EG.** What’s Your Superpower (Nov 2019). The Global Women in STEM Leadership Summit. Atlanta, GA.
10. **Loboa EG.** Presenter and Panelist, Making Missouri a Center of Excellence for Workforce and Economic Development (Sep 2019). Governor’s Conference on Economic Development. St. Charles, MO.
11. **Loboa EG.** Engineering Biomedical Innovations for Cardiovascular Medicine (May 2019). Division of Cardiovascular Medicine Grand Rounds. University of Missouri. Columbia, MO
12. **Loboa EG.** Overview (Planning Process, TPMC Operational Plans and Expectations, Innovation Space and Corporate Relationships) (Feb 2019). Bringing the Vision to Life: Precision Medicine Initiative Progress Update. University of Missouri System. Columbia, MO.

13. **Loboa EG.** Panelist, Women in Science and Entrepreneurship (W.I.S.E.) KC Panel (Jan 2019). Women in Science & Entrepreneurship Networking Breakfast. BioNexus KC. Kansas City, MO.
14. **Loboa EG.** Critical Issue: Transformation at the University of Missouri System (Nov 2018). University of Missouri System. St. Louis, MO.
15. **Loboa EG.** Translational Precision Medicine Complex (TPMC) (Oct 2018). Missouri Community College Association's 15<sup>th</sup> Annual Luncheon. University of Missouri System. Columbia, MO.
16. **Loboa EG.** What your resume says about you (Sep 2018). Mizzou Fall 2018 College of Engineering Career Fair. University of Missouri. Columbia, MO.
17. **Loboa EG.** Tissue Engineering and Regenerative Medicine in the Age of Multi-Drug Resistant Bacteria (July 2018). 13<sup>th</sup> Annual International Conference on Tissue Engineering and Regenerative Medicine. Paris, France.
18. **Loboa EG.** Translational Precision Medicine Complex (TPMC) (June 2018). University of Missouri Precision Medicine Summit. University of Missouri System. Columbia, MO.
19. **Loboa EG.** Functional Tissue Engineering with Fat...and MRSA (Feb 2018). Department of Biological Sciences Seminar Series. Missouri S&T. Rolla, MO.
20. **Loboa EG.** Keynote Speaker, American Council of Engineering Companies of Missouri, Inc. (ACECMO) Winter Meeting (Feb 2018). Columbia, MO.
21. **Loboa EG.** 2017 Tissue Engineering and TERMIS Americas Workshop: How to Interview Well and Negotiate a Good Position (Dec 2017). 2017 TERMIS-Americas Annual Conference and Exhibition. Charlotte, NC.
22. **Loboa EG.** Panelist, The Coming-of-Age Story of Cell Therapy; Is the Field Mature Enough for Prime Time? (Dec 2017) 2017 TERMIS-Americas Annual Conference and Exhibition. Charlotte, NC.
23. **Loboa EG.** Keynote Speaker, The Importance of Women in STEM (Oct 2017). 2017 Women in Science and Entrepreneurship Conference. Kansas City, MO.
24. **Loboa EG.** Regenerative Medicine and MRSA – We Cannot Solve Our Problems with the Same Thinking We Used When We Created Them (Sep 2017). University of Missouri–Columbia's Medical Pharmacology and Physiology Seminar Speaker Series. University of Missouri. Columbia, MO.
25. **Loboa EG.** Reaching Your Highest Peak (Aug 2017). National Society of Black Engineers' Region V Regional Leadership Conference. University of Missouri. Columbia, MO.
26. **Loboa EG.** Keynote Speaker, Biomedical Innovations at MU Engineering: Translating Medical Problems to Product Solutions (Aug 2017). Mizzou Tech Roadshow & Mixer. Office of Technology Management and Industry Relations of the University of Missouri-Columbia. St. Louis, MO.
27. **Loboa EG.** Panelist, Talent Management Panel (June 2017). 2017 10<sup>th</sup> Annual Shared Assessments Summit. Arlington, VA.
28. **Loboa EG.** Regenerative Medicine vs. MRSA – Battling with Biomaterials (May 2017). University of Rochester's Biomedical Engineering Seminar Series. University of Rochester. Rochester, NY.
29. **Loboa EG.** Regenerative Medicine in the Age of Multi-Drug Resistant Bacteria (Apr 2017). University of Arkansas Biomedical Engineering Seminar Speaker Series. University of Arkansas. Fayetteville, AR.
30. **Loboa EG.** Regenerative Medicine, Mechanobiology and MRSA (Apr 2017). University of Iowa's Chemical and Biochemical Engineering Graduate Student Seminar Series. University of Iowa. Iowa City, IA.
31. **Loboa EG.** Guest Speaker, Regenerative Medicine and Wound Healing; Tissue Engineering & Biomaterials (Mar 2017). Saint Teresa's Academy. Kansas City, MO.
32. **Loboa EG.** A Tissue Engineered Life: From UCD to ASC then MIZ (Feb 2017). UC Davis College of Engineering Showcase. University of California at Davis. Davis, CA.

33. **Loboa EG.** Functional Tissue Engineering in the Age of Multi-Drug Resistant Bacteria (Dec 2016). 2016 American College of Veterinary Pathologists (ACVP) and American Society for Veterinary Clinical Pathology (ASVCP) Concurrent Annual Meeting. New Orleans, LA.
34. **Loboa EG.** Keynote Speaker, 2016 Women in Business Awards Luncheon (Oct 2016). Columbia Daily Tribune Women in Business Awards. Columbia, MO.
35. **Loboa EG.** Tissue Engineering with Multi-Drug Resistant Bacteria in the Way (Sep 2016). Saturday Morning Science. University of Missouri. Columbia, MO.
36. **Loboa EG.** What Does Your CV/Resume Say About You (Mar 2016)? Women's Leadership Forum and New Investigator Mentoring Committee Professional Advancement Session. 2016 Annual Meeting of the Orthopaedic Research Society. Orlando, FL.
37. **Loboa EG.** Translating Textiles to Tissues: Tissue Engineering using Industry Standard Manufacturing Approaches (Jan 2016). 2016 Biomedical Engineering Society (BMES) Cellular and Molecular Bioengineering Conference. New Orleans, LA.
38. **Loboa EG.** Our Fat Future: Translating Adipose Stem Cell Therapy (Dec 2015). 11<sup>th</sup> Annual World Stem Cell Summit. Atlanta, GA.
39. **Loboa EG.** Our Fat Future: Understanding and Translating hASC for Clinical Applications (Nov 2015). International Federation of Adipose Therapeutics Symposium. New Orleans, LA.
40. **Loboa EG.** Biomimetic Material Approaches to Tissue Engineering, Regenerative Medicine, and Wound Healing (Oct 2015). AIP-AVS Industrial Physics Forum. San Jose, CA.
41. **Loboa EG.** Regenerative Medicine in Biomedical Engineering (Aug 2015). School of Medicine Annual Research Retreat. UNC-Chapel Hill. Chapel Hill, NC.
42. **Loboa EG.** Advances in Wound Care (July 2015). Johnson & Johnson. Skillman, NJ.
43. **Loboa EG.** North Carolina – the State of BME – Keynote Speaker, 2015 Life Sciences Awards (June 2015). IEEE Engineering in Medicine and Biology Society. North Carolina Biotechnology Center. Research Triangle Park. Raleigh, NC
44. **Loboa EG.** Translating Textiles to Tissues (June 2015). Techtexil North America Symposium and Exhibition. Houston, Texas.
45. **Loboa EG.** The Future of Engineering (May 2015). University of Missouri. Columbia, MO.
46. **Loboa EG.** Fantastic Fat – A Bright Future for Tissue Engineering (Apr 2015). College of Veterinary Medicine. North Carolina State University. Raleigh, NC.
47. **Loboa EG.** Addressing Infection While Engineering Biomimetic Tissues (Mar 2015). 249<sup>th</sup> American Chemical Society (ACS) National Meeting and Exposition. Denver, Colorado.
48. **Loboa EG.** Engineering Innovation: Biomimetic Approaches to Wound Care and Regenerative Medicine (Feb 2015). North Carolina State University. Raleigh, NC.
49. **Loboa EG.** Functional Applications of Electrospun Nanofibers in Tissue Engineering, Regenerative Medicine, and Wound Healing (Feb 2015). RISE Conference. Miami, Florida.
50. **Loboa EG.** Engineering Innovation – New Approaches to Wound Care (Jan 2015). Eastman Chemical Company. Kingsport, Tennessee.
51. **Loboa EG.** Regenerating and Engineering Tissues with Bacteria in the Way (Nov 2014). School of Dentistry. UNC-Chapel Hill. Chapel Hill, NC.
52. **Loboa EG.** My Life in Tissue Engineering, Regenerative Medicine, and Wound Healing: Professional and Personal Adventures (Nov 2014). Bioengineering Graduate Student Society Selected Speaker. University of Maryland. College Park, MD.
53. **Loboa EG.** Tissue Engineering in the Age of Multi-Drug Resistant Bacteria (Oct 2014). 12<sup>th</sup> NJ Symposium on Biomaterials Science. New Brunswick, NJ.

54. **Loboa EG.** Biomimicry and Mechanobiology in Wound Healing and Regenerative Medicine (July 2014). Stanford University. Stanford, CA.
55. **Loboa EG.** Biomimetic Forces and Fibers for Wound Healing and Regenerative Medicine Applications (July 2014). Santa Clara University. Santa Clara, CA.
56. **Loboa EG.** Mechanobiology and its Effect on the Development of Osteochondral Tissue for Regenerative Medicine (July 2014). Swine in Biomedical Research International Conference. Raleigh, NC.
57. **Loboa EG.** Partnerships of Necessity: Regenerative Medicine, Tissue Engineering, and Wound Healing (May 2014). Regenerative Medicine Foundation 2014 Conference. San Francisco, CA.
58. **Loboa EG.** Nanofibrous Platforms for Wound Healing and Tissue Engineering Applications (Apr 2014). 2014 Annual Meeting of the American Association of Textile Chemists and Colorists (AATCC). Asheville, NC.
59. **Loboa EG.** Biomimetic Materials and Mechanics to Regulate Stem Cell Fate (Apr 2014). UNC Stem Cell Symposium. UNC-Chapel Hill. Chapel Hill, NC.
60. **Loboa EG.** Nanofibrous Scaffolds for Tissue Engineering and Drug Delivery: Advancements and Challenges (Mar 2014). New Horizon Workshop. Annual Meeting of the Orthopaedic Research Society. New Orleans, LA.
61. **Loboa EG.** Biomimetic Smart Bandages for Wound Healing and Tissue Engineering Applications (Jan 2014). Engineer's Council Seminar. Raleigh, NC.
62. **Loboa EG.** Matrices and Mechanics to Direct hASC Fate (Nov 2013). 2013 SESAPS Conference. Bowling Green, KY.
63. **Loboa EG.** BME, Mechanobiology, Biomimicry, Wound Healing, and Regenerative Medicine (Oct 2013). Joint UNC-NCSU Regenerative Medicine Symposium. Raleigh, NC.
64. **Loboa EG.** Biomimetic Forces and Fibers for Osteochondral Tissue Engineering using Human Adipose-Derived Stem Cells (Oct 2013). 2013 North Carolina Cartilage-Arthritis Research Alliance (NC-CARA) Meeting. Winston-Salem, NC.
65. **Loboa EG.** Biomimetic Smart Bandages for Wound Healing and Tissue Engineering Applications (Aug 2013). Johnson & Johnson. Philadelphia, PA.
66. **Loboa EG.** Biomimetic Forces and Fibers to Regulate Human Stem Cell Fate for Functional Tissue Engineering and Regenerative Medicine Applications (Aug 2013). 2<sup>nd</sup> International Conference on Tissue Science & Regenerative Medicine. Raleigh, NC.
67. **Loboa EG.** Fabulous Fat! Tissue Engineering using Stem Cells from Love Handles (Aug 2013). National Science Foundation Summer Undergraduate Research Symposium. Raleigh, NC.
68. **Loboa EG.** Biomimetic Forces and Fibers for Wound Healing and Tissue Engineering Applications (June 2013). University of Nebraska Medical Center. Nebraska Regenerative Medicine Project. Omaha, NE.
69. **Loboa EG.** Biomimetic Forces and Fibers: Improving Success in Functional Tissue Engineering, Regenerative Medicine, and Wound Healing (Apr 2013). University of Texas. Dallas, TX.
70. **Loboa EG.** From College to Grad School to Professorship and Motherhood. A Guide (Sort of...) (Apr 2013). The Hockaday School. Dallas, TX.
71. **Loboa EG.** Functional Tissue Engineering: Converting Fat to Bone and Cartilage (Mar 2013). Texas Tech University. Lubbock, TX.
72. **Loboa EG.** How to Make Bone and Cartilage: Start with Fat (Feb 2013). Scholars Forum. North Carolina State University. Raleigh, NC.
73. **Loboa EG.** Biomimetic Approaches for Functional Tissue Engineering Using Human Stem Cells (Nov 2012). Texas A&M University. College Station, TX.

74. **Lobao EG.** Biomimetic Materials and Mechanobiology: Tissue Engineering using Human Adipose-Derived Stem Cells (Oct 2012). Johns Hopkins University. Baltimore, MD.
75. **Lobao EG.** Regenerative Medicine: Can Fat Derived Stem Cells Rebuild Bone and Muscle (Oct 2012). New Horizons in Science Conference. Raleigh, NC.
76. **Lobao EG.** Bioactive Scaffolds to Control Human Stem Cell Fate (Oct 2012). 11<sup>th</sup> NJ Symposium on Biomaterials Science. New Brunswick, NJ. Podium Presentation (Plenary Session).
77. **Lobao EG.** Biomimetic Stimuli to Regulate Stem Cell Fate (Sep 2012). European Materials Research Society 2012 Meeting. Warsaw, Poland.
78. **Lobao EG.** Tissue Engineering Using Stem Cells (Aug 2012). Gordon Research Conference on Musculoskeletal Biology and Bioengineering. Proctor Academy. Andover, NH.
79. **Lobao EG.** The Use of Electrospun Nonwoven Fibers/Fabrics for Tissue Engineering, Wound Healing, and Regenerative Medicine Applications (June 2012). Cotton, Incorporated. Cary, NC.
80. **Lobao EG.** Osteochondral Tissue Engineering using Human Adipose-Derived Stem Cells and Biomimetic Stimuli (May 2012). Tulane University. New Orleans, LA.
81. **Lobao EG.** Higher Education Perspective on the Common Good (Apr 2012). North Carolina State Board of Education. Raleigh, NC.
82. **Lobao EG.** Biomimetic Materials for Functional Tissue Engineering using Human Adipose-Derived Stem Cells (Apr 2012). Duke University. Durham, NC.
83. **Lobao EG.** Functional Musculoskeletal Tissue Engineering. (Apr 2012). Keynote Speaker, MARC Seminar. Delaware State University. Dover, DE.
84. **Lobao EG.** Functional Tissue Engineering and Regenerative Medicine using Stem Cells from Human Fat (Apr 2012). Park Scholars Seminar. NC State University. Raleigh, NC.
85. **Lobao EG.** Today's Stem Cell Discoveries (Apr 2012). "Salons 2012" – series of six presentations hosted by private citizens in Research Triangle Park. Cary, NC.
86. **Lobao EG.** Functional Tissue Engineering using Human Adipose-Derived Stem Cells and Biomimetic Stimuli (Feb 2012). Rehabilitation Engineering Center Seminar. UNC-Chapel Hill & NC State University. Raleigh, NC.
87. **Lobao EG.** Functional Bone Tissue Engineering Using Human Adipose-Derived Stem Cells and Biomimetic Physical Stimuli (Jan 2012). 2<sup>nd</sup> BMES-SPRBM Conference on Cellular and Molecular Bioengineering (30<sup>th</sup> SPRBM Scientific Conference). San Juan, Puerto Rico.
88. **Lobao EG.** Biomaterials, Biomechanics, and Biomimcry – Keys to Success in Regenerative Medicine (Dec 2011). Orthopaedic Grand Rounds. UNC-Chapel Hill. Chapel Hill, NC.
89. **Lobao EG.** Material Stimuli to Regulate Stem Cell Fate (Nov 2011). Materials Research Society. Raleigh, NC.
90. **Lobao EG.** Biomimetic In Vitro Technologies for Functional Bone Tissue Engineering (Nov 2011). North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Winston-Salem, NC.
91. **Lobao EG.** Advances in Biomedical Engineering – Bone (Oct 2011). HESI/CAAT Workshop on Testicular Toxicology In Vitro Models. Baltimore, MD.
92. **Lobao EG.** Functional Osteochondral Tissue Engineering using Human Adipose-Derived Stem Cells (Oct 2011). Comparative Biomedical Sciences Seminar. College of Veterinary Medicine. North Carolina State University. Raleigh, NC.
93. **Lobao EG.** The Use of Electrospun Nonwoven Fibers/Fabrics for Human Cell and Tissue Growth (Oct 2011). INDA Association of the Nonwoven Fabrics Industry RISE Conference. Raleigh, NC.
94. **Lobao EG.** Nanofibrous and Nanocomposite Nonwovens for Bone Tissue Engineering Applications Using Human Stem Cells (Sep 2011). NETInc Innovative Nonwovens Conference. Atlanta, GA.



95. **Loboa EG.** Mechanobiological Approach to Osteochondral Defect Repair Using Human Adipose Derived Stem Cells (Sep 2011). Rheumatology Grand Rounds. University of North Carolina. Chapel Hill, NC.
96. **Loboa EG.** Nanofibrous and Nanocomposite Materials and Human Adipose-Derived Stem Cells: Functional Bone Tissue Engineering Applications (Aug 2011). Nanofibers for the 3<sup>rd</sup> Millennium Conference. Raleigh, NC.
97. **Loboa EG.** Biomimetic Material and Mechanical Stimuli to Regulate Stem Cell Fate (May 2011). The 2011 Cell-Based Therapies and Tissue Engineering (CTTE) Short Course. Cleveland, OH.
98. **Loboa EG.** Functional Bone Tissue Engineering using Human Adipose-Derived Stem Cells and Biomimetic Physical Stimuli (Mar 2011). 15<sup>th</sup> Annual Hilton Head Workshop. Regenerative Medicine Innovations for Clinical Applications. Hilton Head Island, SC.
99. **Loboa EG.** Nanofibrous and Nanocomposite Materials for Functional Bone Tissue Engineering (Sep 2010). Nanofibers for the 3<sup>rd</sup> Millennium: A Summit of the World's Leaders in Nanofibers, 2010. Raleigh, NC.
100. **Loboa EG.** Mechanical and Material Stimuli for Functional Bone Tissue Engineering Using Human Adipose-Derived Stem Cells (Aug 2010). Musculoskeletal Biology & Bioengineering Gordon Research Conference. Andover, NH.
101. **Loboa EG.** Functional Bone Tissue Engineering using Human Adipose-Derived Stem Cells (Oct 2010). Building Bone-A-Fide Networks: Evaluating Musculoskeletal Health Promotion in North Carolina. Raleigh, NC.
102. **Loboa EG.** Stem Cells and Polymeric Biomaterials for Patient Specific Tissue Engineering (May 2010). Triangle Soft Matter Workshop. Duke University. Durham, NC.
103. **Loboa EG.** Stem Cells and Biotextiles for Patient-Specific Tissue Engineering (Apr 2010). Biotextiles, Biomaterials, and Biomanufacturing Seminar. North Carolina State University. Raleigh, NC.
104. **Loboa EG.** Mechanobiology, Nanomaterials, and Stem Cells: an Engineer's Approach to Regenerative Medicine (Apr 2010). National Science Foundation. Arlington, VA.
105. **Loboa EG.** Nanomaterials and Stem Cells (Mar 2010). Nanotech Integration Forum. North Carolina State University. Raleigh, NC.
106. **Loboa EG.** Control of Stem Cell Fate via Mechanical Stimulation (Mar 2010). UNC-Chapel Hill. Chapel Hill, NC.
107. **Loboa EG.** Control of Stem Cell Fate via Mechanical Stimulation (Jan 2010). Imperial College. London, UK.
108. **Loboa EG.** Mechanical and Material Approaches to Control Stem Cell Fate (Oct 2009). Materials Science and Engineering Department Seminar Series. NC State University. Raleigh, NC.
109. **Loboa EG.** Functional Tissue Engineering and Regenerative Medicine of Musculoskeletal Tissues (Aug 2009). National Veterinary Scholars Symposium. Raleigh, NC.
110. **Loboa EG.** Stem Cells & Tissue Engineering (Mar 2009). ONE HEALTH Intellectual Exchange Group. North Carolina Biotechnology Center. Research Triangle Park. Raleigh, NC.
111. **Loboa EG,** Pfeiler TW, Sumanasinghe RD, Hanson AD. Cyclic Tensile Strain Induces Osteogenesis in hMSCs and hASCs (Mar 2009). 2009 Hilton Head Workshop. Regenerative Medicine: Advancing to Next Generation Therapies. Hilton Head Island, SC.
112. **Loboa EG.** Stem Cells and Functional Tissue Engineering (Nov 2008). Durham Technical Community College. Durham, NC.
113. **Loboa EG.** Functional Tissue Engineering Methodologies for Adult Stem Cells (Nov 2008). Wake Forest Institute for Regenerative Medicine. Wake Forest University. Winston-Salem, NC.
114. **Loboa EG.** Mechanobiology of Adult Stem Cells: Orthopaedic Applications (Nov 2008). Orthopaedic Grand Rounds. Department of Orthopaedic Surgery. UNC-Chapel Hill. Chapel Hill, NC.

115. **Loboa EG.** Mechanical Loads and Stem Cell Differentiation (May 2008). Carolina Workshop on Force Measurement and Manipulation in Biological Microscopy. UNC-Chapel Hill. Chapel Hill, NC.
116. **Loboa EG.** Approaches for Investigating Mechanobiology of Adult Stem Cells (Mar 2008). Duke University. Durham, NC.
117. **Loboa EG.** Fantastic Fat – Functional Tissue Engineering with Human Adipose-Derived Stem Cells (Mar 2008). North Carolina State University. Raleigh, NC.
118. **Loboa EG.** Nano – Biomedical Engineering and Mechanobiology (Feb 2008). NC State Nanotechnology Integration Forum. Raleigh, NC.
119. **Loboa EG.** Mechanobiology and Functional Tissue Engineering with Adult Stem Cells (Nov 2007). NC State Zoology Department Seminar Series. Raleigh, NC.
120. **Loboa EG.** Mechanical Loads and Stem Cell Differentiation (May 2007). Workshop on Force Measurement and Manipulation in Biological Microscopy. Computer Integrated Systems for Microscopy and Manipulation. NIH NIBIB Biotechnology Resource Center. UNC-Chapel Hill. Chapel Hill, NC.
121. **Loboa EG.** Stem Cells: An Introduction and Brief History (Apr 2007). Stem Cells: Diffusing the Rhetoric Symposium. NCCU School of Law, Biotechnology & Pharmaceutical Law Institute. Durham, NC.
122. **Loboa EG.** Stem Cells: What’s All the Hubbub (Mar 2007)? “In The Know” Lecture Series. Monteith Research Center. NCSU. Raleigh, NC.
123. **Loboa EG.** Mechanobiology of Human Mesenchymal Stem Cells (June 2006). ABC Fellows. Department of Orthopaedics. UNC-Chapel Hill. Chapel Hill, NC.
124. **Loboa EG.** Ongoing Activities in the Cell Mechanics Laboratory (Aug 2005). Johnson & Johnson. Raleigh, NC.
125. **Loboa EG.** Functional Tissue Engineering (May 2005). Alfred Mann Foundation. Raleigh, NC.
126. **Loboa EG.** Mechanobiology of Human Mesenchymal Stem Cells (Mar 2005). Becton Dickinson. Raleigh, NC.
127. **Loboa EG.** Mesenchymal Tissue and Mesenchymal Stem Cell Differentiation: Functional Tissue Engineering using Mechanobiology (Sep 2004). North Carolina Tissue Engineering Interest Group (NCTEIG) meeting. Raleigh, NC.
128. **Loboa EG.** Trying to Have It All: Academia, Family, and the Pursuit of Happiness (Aug 2004). Mechanical Engineering Women’s Group. Stanford University. Stanford, CA.
129. **Loboa EG,** Wren TAL, Carter DR. Mechanobiology of Soft Skeletal Tissue Regeneration (July 2004). Society for Industrial and Applied Mathematics (SIAM) Conference on the Life Sciences. Portland, OR.
130. **Loboa EG.** Mechanobiology of Mesenchymal Tissue and Mesenchymal Stem Cell Differentiation (Feb 2004). Orthopaedic Grand Rounds. UNC-Chapel Hill. Chapel Hill, NC.
131. **Loboa EG.** New Developments in Distraction Osteogenesis (2001). Surgical Grand Rounds. Stanford University. Stanford, CA.

**Popular Press** (Last five years only.)

1. *FOX3 KDFW* (Aug 10, 2020). “SMU planning to welcome students back in two weeks.”
2. *Inside Columbia’s CEO* (Winter 2019). “Looking Ahead – Business Developments and Concerns for 2020.”
3. *Virgin Hyperloop One (VHO)* (Dec 2019). “Missouri Roadshow Recap.”
4. *The Maneater* (Dec 2019). “MU makes three-year commitment to Aspire to diversify STEM faculty, teaching.”
5. *KOPN 89.5 FM: Mid-MO Freedom Forum* (Nov 2019). (Audio) “Hyperloop Transportation System.”
6. *YouTube* (Oct 2019). “Hyperloop Press Conference at Mizzou.”
7. *Missourian* (Oct 2019). “Couple gives \$1.7 million, split between engineering and veterinary programs.”

8. *Mizzou News – University of Missouri* (Oct 2019). [“Mizzou alumnus honors family with \\$1.7 million in recent gifts.”](#)
9. *Columbia Daily Tribune* (Oct 2019). [“MU alum donates \\$6M for new institute.”](#)
10. *Missourian* (Oct 2019). [“MU receives \\$6 million for NextGen building construction.”](#)
11. *Mizzou News – University of Missouri* (Oct 2019). [“Mizzou alumnus gives \\$6 million gift to precision health institute.”](#)
12. *The Maneater* (Oct 2019). [“Hyperloop visits campus, brings bright future to Missouri transportation.”](#)
13. *Fox2Now* (Oct 2019). [“Hyperloop test pod on display at Mizzou.”](#)
14. *Columbia Daily Tribune* (Oct 2019). [“Virgin touts hyperloop technology in visit to MU.”](#)
15. *KFRU News Talk 98.9FM/1400AM* (Oct 2019). [“Hyperloop One.”](#)
16. *KOMU 8 (NBC)* (Oct 2019). [“Virgin Hyperloop One officials and test pod set for appearance in Columbia.”](#)
17. *GlobeNewswire* (Sep 2019). [“Five New Stops Added to Virgin Hyperloop One U.S. Roadshow.”](#)
18. *The Maneater* (Sep 2019). [“Camp COE enables students to have reliable support system for their time at MU.”](#)
19. *KFRU News Talk 98.9FM/1400AM* (Aug 2019). [“Sunday Morning Roundtable: NextGen Precision Health Institute.”](#)
20. *St. Louis Post-Dispatch* (July 2019). [“University of Missouri and Siemens pair up to bolster research, train biomedical engineers.”](#)
21. *KOMU 8 (NBC) News at Noon* (July 2019). [“UM System: New alliance to bring opportunities to Missouri.”](#)
22. *Missourian* (July 2019). [“UM System, MU Health Care, creates \\$133 million partnership with Siemens.”](#)
23. *Eagle 93.9: Hot Talk of Mid-Missouri* (June 2019). (Audio) [“Elizabeth Loba on New Mizzou Health Institute.”](#)
24. *Missourinet* (June 2019). [“University of Missouri System building “NextGen” research hub to accelerate disease treatment, cures.”](#)
25. *Mizzou News – University of Missouri* (June 2019). [“NextGen Precision Health: University of Missouri celebrates official launch of new health research center.”](#)
26. *University of Missouri System – Precision Health Initiative* (June 2019). [“Launch and Groundbreaking.”](#)
27. *American Society for Engineering Education (ASEE)* (June 2019). [“The College of Engineering at the University of Missouri.”](#)
28. *Missouri Flagship Council Weekly Update* (May 2019). [“Elizabeth G. Loba, Vice Chancellor for Strategic Partnerships and Dean of the College of Engineering.”](#) (Feature)
29. *Congressional Record – Extensions of Remarks* (Apr 2019). [“Extensions of Remarks: Honoring the 148 Inventors Inducted as the 2018 Fellows of the National Academy of Inventors.”](#)
30. *All Together, Society of Women Engineers* (Apr 2019). [“Podcast: Elizabeth Loba, Mizzou’s First Female Dean of Engineering.”](#)
31. *YouTube* (Apr 2019). [“Women in Engineering: Elizabeth Loba.”](#)
32. *All Together, Society of Women Engineers* (Apr 2019). [“Five Fearless Women Engineers on Fighting Impostor Syndrome.”](#)
33. *Eagle 93.9: Hot Talk of Mid-Missouri* (Feb 2019). (Audio) [“MU Engineering Dean Elizabeth Loba on TPMC.”](#)
34. *Inside UM System* (Feb 2019). [“Bringing the Vision to Life: Precision Medicine Initiative Progress Update.”](#)
35. *Columbia Daily Tribune* (Feb 2019). [“University of Missouri targets July start for research center work.”](#)
36. *KOMU 8 (NBC) News at Four* (Feb 2019). [“UM unveils design for new quarter-billion dollar medical complex.”](#)
37. *BioNexus KC* (Jan 2019). [“Sponsorship Crucial for Next Generation of Women in STEM.”](#)
38. *Columbia Daily Tribune* (Dec 2018). [“Loba and Stacey named NAI Fellows.”](#)
39. *National Academy of Inventors* (Dec 2018). [“National Academy of Inventors Announces 2018 Fellows.”](#)
40. *Missourian* (Nov 2018). [“UM wants to chart a new course in research. So it’s building a ‘game changer.’”](#)
41. *YouTube* (Nov 2018). [“Translational Precision Medicine Complex.”](#)
42. *COMO Magazine* (Oct 2018). [“Local Perspective: Precision Medicine at MU – An Economic Driver for Columbia.”](#) (Feature)
43. *Missourian* (Oct 2018). [“‘It takes a community’: Women in engineering rally to extinguish burnout.”](#)

44. *YouTube* (Oct 2018). "[Mizzou: Engineering Our Future.](#)"
45. *Hannibal Courier Post* (Sep 2018). "[MU College of Engineering, Raytheon partnering on National Defense Fellowship Program.](#)"
46. *Mizzou: Our Time to Podcast* (Sep 2018). [Translational Precision Medicine Complex.](#)
47. *KMIZ (ABC17) News at Nine* (Sep 2018). "[New research facility gets \\$228 million price tag.](#)"
48. *KOMU 8 (NBC) News at Seven* (Sep 2018). "[New \\$220 million MU Research building set to be built by 2021.](#)"
49. *Zimmer Radio Group* (Sep 2018). "[Dean Lobo's pre-game interview with Brad Tregnago about the Translational Precision Medicine Complex \(TPMC\).](#)"
50. *KOMU.com* (Aug 2018). "[MU Engineering, CAFNR merge to create new research opportunities.](#)"
51. *AIMBE* (Aug 2018). "[Dean Lobo named vice chancellor for strategic partnerships.](#)"
52. *AARP Bulletin* (June 2018). "[Printers will make body parts from your stem cells.](#)"
53. *Missourian* (June 2018). "[New complex will offer UM System faculty opportunities to collaborate on research.](#)"
54. *The Maneater* (Nov 2017). "[Board of Curators approves preliminary plans for capital projects.](#)"
55. *The Maneater* (Nov 2017). "[MU College of Engineering student chosen as first recipient of EWF fellowship.](#)"
56. *Tiger Radio Network* (Nov 2017). "[Dean Lobo's pre-game interview with Brad Tregnago.](#)"
57. *KOMU.com* (Nov 2017). "[Board of Curators' highest priority project is new MU medical complex.](#)"
58. *Executive Women's Forum* (Oct 2017). [Video footage of Dean Elizabeth Lobo announcing the University of Missouri as the first and only university in the country to partner with the Executive Women's Forum to offer a Ph.D. fellowship.](#)
59. *Kansas City Business Journal* (Oct 2017). "[We need to do everything in our power to keep women in tech.](#)"
60. *COMO Magazine* (July 2017). "[Elizabeth Lobo, Dean, MU School of Engineering.](#)" (Feature)
61. *Warm 106.9* (Mar 2017). "Professor Elizabeth Lobo, Dean of the College of Engineering at the University of Missouri." (Interview)
62. *KOMU (NBC) News at Ten* (Mar 2017). "[MU researcher finds silver can combat deadly staph infection.](#)"
63. *Futurity.org* (Feb 2017). "[Silver scaffolds grow bone while blocking MRSA.](#)"
64. *Mizzou News – University of Missouri* (Feb 2017). "[Silver Ion-Coated Medical Devices Could Fight MRSA While Creating New Bone.](#)"
65. *13KRCG* (Dec 2016). "[University of Missouri names panel in search for chancellor.](#)"
66. *Medical News Today* (Oct 2016). "[Watching stem cells change provides clues to fighting osteoporosis in older women.](#)"
67. *Futurity.org* (Oct 2016). "[Team watches as fat cells become bone tissue.](#)"
68. *United Press International* (Oct 2016). "[Stem cell transformation provides insight into osteoporosis.](#)"
69. *Mizzou News – University of Missouri* (Oct 2016). "[Watching Stem Cells Change Provides Clues to Fighting Osteoporosis in Older Women.](#)"
70. *Columbia Daily Tribune* (Oct 2016). "[First female MU Engineering Dean to speak at Women in Business event.](#)"
71. *Bioengineer.org* (Sep 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
72. *Orthopedics this Week* (Apr 2016). "[Found! More cost-effective method of tissue engineering.](#)"
73. *Journal of Emergency Medical Services* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
74. *Futurity.org* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
75. *Smithsonian Magazine* (Apr 2016). "[Taking a cue from textile-making to engineer human tissue.](#)"
76. *Textile World* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
77. *EurekaAlert* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
78. *NewsWise* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
79. *BioSpace* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
80. *KurzweilAI* (Apr 2016). "[Methods used to create textiles also could help manufacture human tissues.](#)"
81. *KurzweilAI Facebook* (Apr 2016). "Methods used to create textiles also could help manufacture human tissues."

82. *Medical News Today* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
83. *Nanowerk News* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
84. *National Science Foundation* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
85. *ScienceNewsLine* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
86. *Society of Women Engineers (SWE)*. Apr 2016. “Methods used to create textiles also could help manufacture human tissues.”
87. *SpaceDaily* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
88. *Stem Cell and Regenerative Science Portal* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
89. *Stem Cell and Regenerative Science Facebook* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
90. *eScienceNews* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
91. *Phys.org* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
92. *Phys.org Facebook* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
93. *ScienceDaily* (Apr 2016). “Methods used to create textiles also could help manufacture human tissues.”
94. *United Press International* (Apr 2016). “Textile manufacturing methods could help create human tissue.”
95. *Mizzou News – University of Missouri* (Apr 2016). “Methods Used to Create Textiles Also Could Help Manufacture Human Tissues.”
96. *Medical Physics Web* (Mar 2016). “Methods used to create textiles also could help manufacture human tissues.”
97. *Columbia Daily Tribune* (Dec 2016). “Interview with Dean Loba.”
98. *AIMBE* (Jan 2016). “Elizabeth G. Loba, Ph.D. To be Inducted into Medical and Biological Engineering Elite.”
99. *COMO Magazine* (Nov 2015). “November: Movers and Shakers.”
100. *The Maneater* (Sep 2015). “New Dean Loba hopes to continue trend of growth for MU College of Engineering.”
101. *Missourian* (Aug 2015). “MU names Elizabeth Loba dean of College of Engineering.”
102. *Mizzou News – University of Missouri* (Aug 2015). “North Carolina State University Biomedical Engineer Named College of Engineering Dean.”

### **Academic Mentoring and Promotion of Diversity and Inclusion**

- Speaker, Mizzou Pursuit of Excellence Banquet, Hosted by the Diversity and Outreach Initiatives Office of the University of Missouri College of Engineering and the University of Missouri Center for Academic Success and Excellence, Columbia, MO, 2019
- Speaker, Diverse Engineering Professionals Conference, Columbia, MO, 2019
- MU College of Engineering recognized by ASEE Diversity Recognition Program with Bronze award (highest level awarded in 2019). Article at: ASEE recognizes Mizzou Engineering for commitment to diversity, inclusion.
- Speaker, Camp COE for first-year engineering students, Columbia, MO, 2019
- Speaker, Engineering Graduate Student Orientation, Columbia, MO, 2019
- Speaker, Engineering Success Bridge Program, Columbia, MO, 2019
- Speaker, College of Engineering Summer Camp of International Students, Hosted by the University of Missouri International Center and College of Engineering International Programs, Columbia, MO, 2019
- Speaker, STEMette Camp, Columbia, MO, 2019
- Speaker, Daughter Engineering Day, Columbia, MO, 2019
- Speaker, Develop[HER,] “Discussing Women in STEM,” Columbia, MO, 2019
- Presenter, MU College of Engineering Research Day, Columbia, MO, 2019

- Speaker, National Academy of Inventors (NAI) 8<sup>th</sup> Annual Meeting and Induction Ceremony: Connecting the Innovation Community, “Global innovation: creating a conference to promote diversity in STEM,” Houston, TX, 2019
- Speaker, Engineering Career Day: Employer Engagement and Professional Development with Information Technology, Computer Science and Computer Engineering Students, Columbia, MO, 2019
- Speaker, 2019 Mizzou Women’s Leadership Conference, “Women in Engineering,” Columbia, MO, 2019
- Speaker, MU Engineering High School Day, Columbia, MO, 2019
- Speaker, 42<sup>nd</sup> Annual Big XII Conference on Black Student Government, Hosted by the MU Legion of Black Collegians, Columbia, MO, 2019
- Panelist, University of Missouri Women in Engineering Week, “Preparing STEM 4 Women Session,” Columbia, MO 2019
- Panelist, Women in Science and Entrepreneurship (W.I.S.E.) KC Panel, Kansas City, MO, 2019
- Speaker, Mizzou Pursuit of Excellence Banquet, Hosted by the Diversity and Outreach Initiatives Office of the University of Missouri College of Engineering and the University of Missouri Center for Academic Success and Excellence, Columbia, MO, 2018
- Speaker, National Association of Engineering Student Councils Central Region Conference, Columbia, MO, 2018
- Keynote Speaker, Society of Women Engineers, Columbia, MO, 2018
- Panelist, University of Missouri Women in Engineering Week, “How to Avoid Burnout,” Columbia, MO, 2018
- Panelist, Women in Engineering Path to Success: Lunch and Panel Discussion, Columbia, MO, 2018
- Speaker, Daughter Engineering Day, Columbia, MO, 2018
- Keynote Speaker, Mizzou Non-Traditional Career Exploration Event for Middle and High School Students, Hosted by 4-H and the MU College of Education’s Heart of Missouri Regional Professional Development Center, Columbia, MO, 2018
- Speaker, University of Missouri Fall 2018 College of Engineering Career Fair, “What Your Resume Says About You,” Columbia, MO, 2018
- Keynote Speaker, MU College of Engineering Success Bridge Program, Columbia, MO, 2018
- Speaker, MU College of Engineering Summer Welcome, Columbia, MO, 2018
- Speaker, MU College of Engineering Research Day, Columbia, MO, 2018
- Speaker, MU Engineering Freshman Interest Groups, Columbia, MO, 2018
- Speaker, MU Engineering High School Day, Columbia, MO, 2018
- Keynote Speaker, Mizzou Pursuit of Excellence Banquet, Hosted by the Diversity and Outreach Initiatives Office of the University of Missouri College of Engineering and the University of Missouri Center for Academic Success and Excellence, Columbia, MO, 2017
- Mentor, Meet-the-Mentor Luncheon, 2017 TERMIS-Americas Annual Conference and Exhibition, Charlotte, NC, 2017
- Speaker, MU Chapter of the Society of Women Engineers, University of Missouri, Columbia, MO, 2017
- Roundtable Participant, National Strategies for Recruitment and Retention of Hispanics in Academia, 2017 Society of Hispanic Professional Engineers National Conference, Kansas City, MO, 2017
- Panelist, Collaborative Action at MU, Griffiths Leadership Society for Women, University of Missouri, Columbia, MO, 2017
- Speaker, Saint Teresa’s Academy Open House Visit to MU College of Engineering, University of Missouri, Columbia, MO, 2017
- Keynote Speaker, The Importance of Women in STEM, 2017 Women in Science and Entrepreneurship, Kansas City, MO, 2017
- Panelist, Challenges and Opportunities for Women in STEM Field, 2017 Women in Science and Entrepreneurship, Kansas City, MO, 2017
- Speaker, Diverse Engineering Professionals Conference, Columbia, MO, 2017
- Speaker, Mizzou Engineering Student Council High School Day, Columbia, MO, 2017
- Panelist, Opportunities for Women in STEM: Leadership & Mentorship, 2017 Women in Science and Entrepreneurship and the Missouri Cures Education Foundation, St. Louis, MO, 2017

- Panelist, State of Engineering Education in Missouri, Missouri Society of Professional Engineers (MSPE) 2017 Annual Convention, Camdenton, MO, 2017
- Speaker, Reaching Your Highest Peak, National Society of Black Engineers' Region V Regional Leadership Conference, Hosted by the University of Missouri College of Engineering, Columbia, MO 2017
- Panelist, National Society of Black Engineers' Engineering Dean's and MEP Strategic Retention Forum, National Society of Black Engineers 43<sup>rd</sup> Annual Convention, Kansas City, MO, 2017
- Roundtable Participant, National Society of Black Engineers' Engineering Deans and MEP Strategic Retention Roundtable, National Society of Black Engineers 43<sup>rd</sup> Annual Convention, Kansas City, MO, 2017
- Keynote Speaker, Regenerative Medicine and Wound Healing Tissue Engineering & Biomaterials, Saint Teresa's Academy, Kansas City, MO, 2017
- Panelist, Hidden Figures Screening Panel Discussion of Women and Minority Women in STEM Fields, University of Missouri, Columbia, MO, 2017
- Keynote Speaker, A Tissue Engineered Life: From UCD to ASC then MIZ, University of California at Davis, Davis, CA, 2017
- Roundtable Participant, Advancing Women in Cybersecurity in Computer Science, 4<sup>th</sup> Annual Women of Influence Roundtable, Executive Women's Forum National Conference, Scottsdale, AZ, 2016
- Panelist, Women in Science and Entrepreneurship (WISE) Opportunities and Entrepreneurship Panel Discussion, Missouri Cures Education Foundation, Columbia, MO, 2016
- Speaker, What Does Your CV/Resume Say About You? Women's Leadership Forum and New Investigator Mentoring Committee Professional Advancement Session, Annual Meeting of the Orthopaedic Research Society, Orlando, FL, 2016
- Speaker, Women's Leadership Forum and New Investigator Mentoring Committee Professional Advancement Session, Orthopaedic Research Society Annual Meeting, Orlando, FL, 2016
- Panelist, Women in Engineering, Women & Minority Engineering Programs Faculty Panel, North Carolina State University, Raleigh, NC, 2015
- Mentor, multiple junior faculty in Biomedical Engineering and College of Veterinary Medicine, University of North Carolina Chapel Hill and North Carolina State University, Chapel Hill, NC and Raleigh, NC, 2012 – 2015
- Mentor, Abrams Scholars, North Carolina State University, Raleigh, NC, 2011 – 2015
- Chapter Advisor, Tau Beta Pi National Engineering Honor Society, North Carolina State University, Raleigh, NC, 2009 – 2015
- Mentor, Initiative for Maximizing Student Diversity (IMSD) scholars, North Carolina State University, Raleigh, NC, 2007 – 2015
- Mentor, Alliances for Graduate Education and the Professoriate (AGEP) scholars, North Carolina State University, Raleigh, NC, 2005 – 2015
- Mentor, Women in Science and Engineering (WISE) scholars, North Carolina State University, Raleigh, NC, 2005 – 2015
- Mentor, Park Scholars, North Carolina State University, Raleigh, NC, 2005 – 2015
- Mentor, Reaching Incoming Students Enrichment (RISE) scholars, North Carolina State University, Raleigh, NC, 2004 – 2015
- Mentor, Howard Hughes Medical Institute Summer Research Intern (HHMI SRI) scholars, North Carolina State University, Raleigh, NC, 2004 – 2015
- Invited Panelist, Careers in Academia, Duke University, Durham, NC, 2012
- Presenter, Annual Escape Summer Camp for Incoming Female Students in Engineering, North Carolina State University, Raleigh, NC, 2008 – 2011
- Mentor, Stanford Association for Women in Science, Stanford University, Stanford, CA, 1999 – 2002
- Presenter, California Forum for Diversity in Graduate Education introducing underrepresented college students to graduate programs in science and engineering, Stanford University, Stanford, CA, 2000
- Presenter, Partners in Science College Initiative (PISCI) introducing high school students to the pursuit of studies in science, Stanford University, Stanford, CA, 2000
- Panelist, Mentoring Workshop, graduate women mentoring undergraduate women on obtaining success in graduate school, Stanford University, Stanford, CA, 2000

Presenter, Expanding Your Horizons (EYH) Workshop introducing junior high school girls to science and engineering, Stanford University, Stanford, CA, 1999 – 2000  
 TransAccess (San Jose, CA) mentor to women with disabilities, Stanford University, Stanford, CA, 1999 – 2000

### **Campus and Community Involvement and Engagement**

Member, Missouri Blue Ribbon Panel on Hyperloop, State of Missouri, 2019 – 2020  
 Advisory Board, *Columbia Business Times*, 2019 – 2020  
 Board of Directors, Heart of Missouri United Way, 2018 – 2020  
 Presenter, 8<sup>th</sup> Annual Coulter Program Awards and Mixer hosted by the Patient-Centered Care Learning Center, Columbia, MO, 2019  
 Presenter, Missouri's Special Blue Ribbon Panel on Hyperloop, Columbia, MO, 2019  
 Panelist, *Inside Columbia's CEO Magazine* Roundtable Luncheon, Zimmer Radio and Marketing Group, Columbia, MO, 2019  
 Presenter, College of Engineering Annual Scholarship Dinner, University of Missouri, 2019  
 Presenter, "Lunch with the Dean," Annual Summit Conference hosted by the Office of Extension and Engagement, University of Missouri System, Columbia, MO, 2019  
 Presenter, MoExcels Proposal Presentation, "Imaging the Future: Clinical Service Engineering for Missouri," Missouri Coordinating Board for Higher Education (CBHE), University of Missouri, Columbia, MO, 2019  
 Judge, 2019 Homecoming Parade, University of Missouri, Columbia, MO, 2019

Presenter, Virgin Hyperloop One Pod co-hosted by the College of Engineering and the Office of Research and Economic Development, University of Missouri, Columbia, MO, 2019  
 Presenter, Merit Badge Day for the Great Rivers Council of the Boy Scouts of America, University of Missouri Columbia, MO, 2019  
 Presenter, "NextGen Precision Health Initiative," Columbia Chamber of Commerce, Columbia, MO, 2019  
 Co-Presenter, "NextGen Precision Health Initiative," Missouri 100 Meeting, Columbia, MO, 2019  
 Presenter, "NextGen Precision Health Initiative," MU Retirees Association Meeting, Columbia, MO, 2019  
 Presenter, "NextGen Precision Health Initiative," Central Bank of Boone County Young Executives Lunch, Columbia, MO, 2019  
 Presenter, U.S. High Performance Research Reactor Meeting, Hosted by the College of Engineering, MU Research Reactor and the National Nuclear Security Administration's Office of Material Management and Minimization, University of Missouri, Columbia, MO, 2019  
 Presenter, Groundbreaking Ceremony of the NextGen Precision Health Institute, Translational Precision Medicine Complex (TPMC), University of Missouri System, Columbia, MO, 2019  
 Presenter, Caris Life Science Visit, University of Missouri, Columbia, MO, 2019  
 Presenter, AmeriMech Symposium: Non-reciprocal and Topological Wave Phenomena in Solids and Fluids, University of Missouri, Columbia, MO, 2019  
 Commencement Speaker, May Commencement Address, Mizzou Online, University of Missouri, Columbia, MO, 2019  
 Presenter, Precision Health Initiative Reception, University of Missouri System, Columbia, MO, 2019  
 Presenter, ThermAvant Technologies Grand Opening, Columbia, MO, 2019  
 Presenter, Mizzou Jefferson Club Dinner, Columbia, MO 2019  
 Presenter, Mizzou Shamrock Society Brunch, Columbia, MO, 2019  
 Presenter, Precision Medicine Initiative Update, University of Missouri-Kansas City, Kansas City, MO, 2019  
 Keynote Speaker, Tau Sigma Transfer Student Honor Society Induction, University of Missouri, Columbia, MO, 2019  
 Presenter, "College of Engineering and the University of Missouri System's Precision Medicine Initiative," Houston Texas Tigers Chapter, Mizzou Alumni Association, Houston, TX, 2019  
 Panelist, Leadership Columbia Development and Industry Day, Columbia Chamber of Commerce, Columbia, MO, 2019



Presenter, Translational Precision Medicine Complex (TPMC), Truman Memorial VA Medical Center, Columbia, MO, 2019

Presenter, “Precision Medicine at MU: An Economic Driver for Columbia,” Sunrise Southwest Rotary, Columbia, MO, 2019

Presenter, “Translating Precision Medicine: Transforming the future of healthcare,” MU School of Medicine Research Council, University of Missouri, Columbia, MO, 2019

Showcase Exhibitor, TPMC-PMI UM System, 2019 UM System Legislative Showcase Exhibits: Workforce Development, Jefferson, MO, 2019

Presenter, “Bringing the Vision to Life: Precision Medicine Initiative Progress Update,” University of Missouri System, Columbia, MO, 2019

Keynote Speaker, Translational Precision Medicine Complex (TPMC), Regional Economic Development, Inc. (REDI) Board of Directors Meeting, Columbia, MO, 2018

Keynote Speaker, Translational Precision Medicine Complex (TPMC), Commerce Bank Regional Advisory Board, Columbia, MO, 2018

Presenter, Non-Traditional Career Exploration Day, sponsored by MU Extension, hosted by the College of Engineering, University of Missouri, Columbia, MO, 2018

Presenter, Translational Precision Medicine Complex (TPMC), MU Staff Advisory Council, University of Missouri, Columbia, MO, 2018

Presenter, Translational Precision Medicine Complex (TPMC), Advancement Divisional Meeting, University of Missouri, Columbia, MO, 2018

Presenter, Translational Precision Medicine Complex (TPMC), Missouri 100 Reception and Meeting, University of Missouri, Columbia, MO, 2018

Presenter, College of Engineering Annual Scholarship Dinner, University of Missouri, Columbia, MO, 2018

Speaker Virgin Hyperloop One Project with Black & Veatch and Virgin Hyperloop One, University of Missouri, Columbia, MO, 2018

Beyond Campus, M-I-Z in K.C. Alumni Event co-hosted by the College of Engineering and College of Arts & Sciences, University of Missouri, Columbia, MO, 2018

Honorary Co-Chair, 19<sup>th</sup> Annual Tiger Ball, Kansas City Chapter of the Mizzou Alumni Association and University of Missouri, Columbia, MO, 2018

Presenter, Mizzou Shamrock Society Brunch, Columbia, MO, 2018

Judge, Reynolds Journalism Institute Student Competition, University of Missouri, Columbia, MO, 2018

Keynote Speaker, Tau Sigma Transfer Student Honor Society Induction, University of Missouri, Columbia, MO, 2018

Presenter, Merit Badge University for the Great Rivers Council of the Boy Scouts of America, University of Missouri, Columbia, MO, 2017

Presenter, College of Engineering Annual Scholarship Dinner, University of Missouri, Columbia, MO, 2016

### **Honors and Awards**

Fellow, American Association for the Advancement of Science, 2021

Fellow, American Society of Mechanical Engineers, 2021

Fellow, National Academy of Inventors, 2019

Lloyd and Margaret Ketcham Research Professorship, 2017

*Insight into Diversity* Giving Back Award, 2017

UC Davis Distinguished Engineering Alumni Award, 2016

Fellow, American Institute for Medical and Biological Engineering (AIMBE), 2016

Fellow, Biomedical Engineering Society (BMES), 2016

Fellow, ELATE (Executive Leadership in Academic Technology and Engineering), 2015

North Carolina State University Faculty Scholar Award, 2012

North Carolina State University Chancellor’s Innovation Award, 2011

Stanford University Distinguished Alumni Scholar Award, 2010

UK-US Stem Cell Collaboration Development Award, 2009

Sigma Xi Faculty Research Award, 2009

Ralph E. Powe Junior Faculty Award, 2005

Selected Participant, Science and Engineering Education Scholars Program (19 participants accepted nationwide):  
7<sup>th</sup> Annual Conference on developing and implementing more effective teaching methodologies for  
undergraduate science and engineering, 2002

Selected Delegate, Rotary International Group Study Exchange Trip to India (declined), 2001

Jeffrey K. Lyons Award for Outstanding Service to the Stanford Community, 2000

Stanford Graduate Service Recognition Award, 2000

UC Davis Outstanding Senior of the Year, 1994 – 1995

President's Undergraduate Fellowship, 1994 – 1995

Tau Beta Pi National Engineering Honor Society, 1994 – present

Golden Key National Honor Society, 1993 – present

Phi Kappa Phi National Honor Society, 1993 – present

**Peer-Reviewed Journal Articles** (*Last author position is corresponding author unless otherwise noted.*)

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### **Book Chapters**

1. Nordberg RC, Bodle JC, **Loboa EG**. Mechanical stimulation of adipose-derived stem cells for functional tissue engineering of the musculoskeletal system via cyclic hydrostatic pressure, simulated microgravity, and cyclic tensile strain. In: *Adipose-Derived Stem Cells: Methods in Molecular Biology, vol 1773*. Bruce A. Bunnell and Jeffrey M. Gimble, Chapter 18, pp. 215-230. Humana Press, New York, NY (2018). [https://doi.org/10.1007/978-1-4939-7799-4\\_18](https://doi.org/10.1007/978-1-4939-7799-4_18). Invited submission.
2. Charoenpanich A, Bodle J, **Loboa EG**. The role of cyclic tensile strain on osteogenesis and angiogenesis in human mesenchymal stem cells. In: *The Biology and Therapeutic Application of Mesenchymal Cells*, ed. M. Kerry Atkinson, pp. 208-221. John Wiley Publishers (2016). Invited submission.
3. Wall ME, Dymant NA, Bodle J, Volmer J, **Loboa EG**, Cederlund A, Fox AM, Banes AJ. Cell signaling in tenocytes: response to load and ligands in health and disease. *Metabolic Influences on Risk for Tendon Disorders (Part of the Advances in Experimental Medicine and Biology – Volume 920)*, ed. Cham Springer, pp. 79-95. Springer International Publishing, Switzerland (2016). <https://doi.org/10.1007/978-3-319-33943-6>. Epub 2016 Aug 18.
4. Mohiti-Asli M, **Loboa EG**. Nanofibrous smart bandages for wound care. In: *Wound Healing Biomaterials, Volume 2*, ed. Magnus Agren, pp. 481-497. Elsevier Ltd. (2016). Invited submission.
5. McCullen SD, Hanson AD, Lucia LA, **Loboa EG**. Development and application of naturally-renewable scaffold materials for bone tissue engineering. In: *The Nanoscience and Technology of Renewable Biomaterials*, ed. L Lucia, O Rojas, pp. 293-306. Blackwell Publishing Ltd. (2009). Invited submission.
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10. Carter DR, **Loboa Polefka EG**, and Beaupré GS. Mechanical influences on skeletal regeneration. In: *Human Biomechanics and Injury Prevention*, ed. J Kajzer, E Tanaka, H Yamada, pp. 129-136. Springer-Verlag, Tokyo (2000).

**Submitted Articles in Review/Revision**

1. Nordberg RC, Magalhaes RS, Cervelló I, Williams JK, Lobo EG, Atala A. A biomechanical assessment of tissue-engineered polymer newo-uteri after orthotopic implanation. *Tissue Engineering*. (in review)

**Refereed Conference Proceedings**

1. Mellor LF, Nordberg RC, Huebner P, Mohiti-Asli M, Taylor MA, Efirid W, Oxford JT, Spang J, Shirwaiker RA, **Lobo EG** (Aug 2018). Investigation of multi-phasic 3D-bioplotted scaffolds for site-specific chondrogenic and osteogenic differentiation of human adipose derived stem cells for osteochondral tissue engineering application. Musculoskeletal Biology and Bioengineering Gordon Research Seminar (GRS) Frontiers of Science at Proctor Academy: Insight into Musculoskeletal Tissue Interfaces in Homeostasis and Disease. Andover, NH.
2. Bago JR, Pegna GJ, Okolie O, Mohiti-Asli M, **Lobo EG**, Hingtgen SD, Moore K, Ainslie K (Oct 2017). Biocompatible electrospun nanofibrous scaffolds enhance tumoricidal stem cell therapy in surgical model of glioblastoma resection and recurrence. 2017 Biomedical Engineering Society (BMES) Annual Meeting. Phoenix, AZ.
3. Nordberg R, Wang H, Wu Q, **Lobo EG** (Sep 2017). Corin is a key regulator of endochondral ossification and bone development via modulation of VEGF-A expression. American Society for Bone and Mineral Research (ASBMR) 2017 Annual Meeting. Denver, CO. Podium Presentation.
4. Huebner P, Spang JT, **Lobo EG**, Shirwaiker RA (May 2017). Optimizing the macro-scale geometry of 3D biofabricated osteochondral scaffolds to match the implantation characteristics of native tissue autografts. Institute of Industrial & Systems Engineers Annual Conference and Expo 2017. Pittsburgh, PA.
5. Nordberg RC, Mellor LF, Huebner P, Sonnenberg S, Taylor MA, Efirid W, Spang J, Shirwaiker RA, **Lobo EG** (Mar 2017). A novel 3D-bioplotted osteochondral scaffold for site specific human adipose stem cell differentiation. Orthopaedic Research Society (ORS) 2017 Annual Meeting. San Diego, CA.
6. Nordberg RC, Bodle JC, **Lobo EG** (Dec 2016). Primary cilia and canonical Wnt-signaling crosstalk to modulate osteogenic differentiation in human adipose stem cells in 3D loading conditions. 2016 TERMIS Americas Annual Conference and Exhibition. San Diego, CA. Podium Presentation.
7. Mohiti-Asli M, Pourdeyhimi B, **Lobo EG** (Apr 2016). In vivo evaluation of silver ion releasing scaffolds for treatment of infected wounds using a porcine model. 28<sup>th</sup> Annual Meeting of the Wound Healing Society. Atlanta, GA. Podium Presentation.
8. Mellor LF, Trevisan B, Taylor MA, Karus AR, Donahue H, Oxford JT, **Lobo EG** (Feb 2016). Sclerostin inhibition in hindlimb unloading model: good news for bone, bad news for cartilage. 2016 NASA Human Research Program IWS Meeting. Houston, TX. Podium Presentation.
9. Mohiti-Asli M, Molina C, Pourdeyhimi B, **Lobo EG** (Nov 2015). Silver releasing scaffolds for treatment/prevention of osteomyelitis. 2015 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC. Podium Presentation.
10. Steward A, Cole J, Ligler F, **Lobo EG** (Nov 2015). Cyclic tensile strain and co-culture of human MSCs with HUVECs synergistically enhance osteogenesis. 2015 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC. Podium Presentation.

11. Mohiti-Asli M, Risselada M, Jacob M, Pourdeyhimi B, **Loboa EG** (Nov 2015). In vivo evaluation of silver ion releasing scaffolds for treatment of infected wounds using a porcine model. 2015 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
12. Shaobo C, Behnam P, **Loboa EG** (Nov 2015). Additives doped PLA spunblown nonwovens for bacterial adhesion reduction and biomedical implantation. 2015 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
13. Bodle JC, Hamouda MH, **Loboa EG** (Oct 2015). Lineage specific chemo – and mechanosensitivity of primary cilia in adipose-derived stem cells. 2015 Annual Meeting of the Biomedical Engineering Society. Tampa, FL. Podium Presentation.
14. Nordberg R, Charoenpanich A, **Loboa EG** (Oct 2015). Corin is a key regulator of osteogenesis in mesenchymal stem cells via angiogenic mechanisms. 2015 Annual Meeting of the Biomedical Engineering Society. Tampa, FL.
15. **Loboa EG** (Sep 2015). Effects of Donor Age and Menopausal Status on Proliferation and Osteogenic Differentiation of Human Adipose Derived and Bone Marrow Derived Mesenchymal Stem Cells. 2015 4<sup>th</sup> TERMIS World Congress. Boston, MA.
16. Mellor LF, Mehendale SV, Sonnenberg S, Taylor MA, Heubner P, Guilak F, Shirwaiker RA, **Loboa EG** (Sep 2015). Using human adipose derived stem cells and optimized 3D bioprinted scaffolds for osteochondral tissue engineering. 2015 4<sup>th</sup> TERMIS World Congress. Boston, MA.
17. Nordberg RC, Matthew FW, Zhang J, Starly B, **Loboa EG** (Sep 2015). Age-dependent regulation of hASC osteogenesis quantified via electrical cell-substrate impedance spectroscopy. 2015 4<sup>th</sup> TERMIS World Congress. Boston, MA.
18. Sonnenberg S, Taylor MA, Mellor L, Mehendale S, Shirwaiker R, **Loboa EG** (Apr 2015). Hybrid scaffold-reinforced extracellular matrix hydrogels for cartilage tissue engineering. 2015 Annual Meeting of the Society for Biomaterials. Charlotte, NC.
19. Mohiti-Asli M, Molina C, Rietzler K, Pourdeyhimi B, **Loboa EG** (Apr 2015). Highly elastic nanofibrous scaffolds for skin tissue engineering applications. 2015 Annual Meeting of the Society for Biomaterials. Charlotte, NC.
20. Mellor LF, Mehendale S, Mohiti-Asli M, Taylor MA, Pedersen C, Shirwaiker RA, **Loboa EG** (Mar 2015). Evaluation of micro and nano-scale scaffold architectures for osteochondral tissue engineering. 2015 Annual Meeting of the Orthopaedic Research Society. Las Vegas, NV.
21. Mellor LF, Taylor MA, Baker T, Hiremath M, Oxford JT, **Loboa EG** (Jan 2015). Crosstalk between subchondral bone and articular cartilage in reduced gravity may contribute to catastrophic joint damage. NASA HRP (Human Research Project) 2015 Annual Meeting. Galveston, TX.
22. Nordberg R, Mellor L, Orndorff D, **Loboa EG** (Jan 2015). LRP receptors in canonical Wnt signaling are responsive to microgravity and regulate cartilage homeostasis. NASA HRP (Human Research Project) 2015 Annual Meeting. Galveston, TX.
23. Nordberg R, Mellor L, Orndorff D, **Loboa EG** (Jan 2015). The roles of LRP4/5/6 in the regulation of cartilage homeostasis in unloading conditions – elucidating cartilage degeneration in disuse osteoarthritis. Biomedical Engineering Society: Cellular and Molecular Bioengineering 2015 Annual Meeting. St. Thomas, USVI.

24. Mellor LF, Taylor MA, Baker T, Hiremath M, Oxford JT, **Loboa EG** (Jan 2015). Mechanotransduction of articular cartilage and subchondral bone in unloading conditions. Biomedical Engineering Society: Cellular and Molecular Bioengineering 2015 Annual Meeting. St. Thomas, USVI. Podium Presentation.
25. Sonnenberg, S, Mellor L, Taylor, MA, **Loboa EG** (Jan 2015). Thermo-responsive, injectable extracellular matrix scaffold for cartilage regeneration. Biomedical Engineering Society: Cellular and Molecular Bioengineering 2015 Annual Meeting. St. Thomas, USVI.
26. Mohiti-Asli M, Murphy S, Saha S, Pourdeyhimi B, Atala A, **Loboa EG** (Jan 2015). Commercial translation of novel biomaterials: development of analgesic, anti-inflammatory bandages and evaluation of industry standard scale-up. Biomedical Engineering Society: Cellular and Molecular Bioengineering 2015 Annual Meeting. St. Thomas, USVI. Podium Presentation.
27. Tuin SA, Pourdeyhimi B, **Loboa EG** (Jan 2015). From textiles to tissues: economical, scalable, textile industry standard nonwovens for tissue engineering applications. Biomedical Engineering Society: Cellular and Molecular Bioengineering 2015 Annual Meeting. St. Thomas, USVI. Podium Presentation.
28. Cai S, Bodle J, Mathieu PS, Hamouda M, McCarty G, **Loboa EG** (Jan 2015). Are primary cilia sensors of electric field stimulation? Biomedical Engineering Society: Cellular and Molecular Bioengineering 2015 Annual Meeting. St. Thomas, USVI.
29. Mohiti-Asli M, Saha S, Pourdeyhimi B, **Loboa EG** (Dec 2014). High throughput electrospinning of anti-inflammatory nanofibers for wound healing applications. 2014 Annual Meeting of the Tissue Engineering and Regenerative Medicine International Society (TERMIS). Washington, DC.
30. Cai S, Sheshadri P, Shirwaiker RA, **Loboa EG** (Dec 2014). Novel three dimensional polycaprolactone/hydroxyapatite scaffold with a shifted structure for bone tissue engineering applications. 2014 Annual Meeting of the Tissue Engineering and Regenerative Medicine International Society (TERMIS). Washington, DC.
31. Mellor LF, Williams J, Guilak F, Koh S, Piedrahita J, **Loboa EG** (Dec 2014). Effects of extracellular calcium in human and porcine adipose derived stem cell differentiation. 2014 Annual Meeting of the Tissue Engineering and Regenerative Medicine International Society (TERMIS). Washington, DC.
32. Tuin SA, Pourdeyhimi B, **Loboa EG** (Oct 2014). Economical, scalable, textile industry standard nonwoven manufacturing for tissue engineering. Proceedings of the 16<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Durham, NC. Podium Presentation.
33. Mellor L, Williams J, Guilak F, Koh S, Piedrahita J, **Loboa EG** (Sep 2014). Effects of extracellular calcium in human and porcine adipose derived stem cell differentiation for osteochondral tissue engineering. 2014 Annual Meeting of the American Society of Bone and Mineral Research. Houston, TX.
34. Mellor L, Baker TL, Hiremath JM, Oxford JRT, **Loboa EG** (Sep 2014). The effects of reduced gravity on subchondral bone and articular cartilage: are they good neighbors? 2014 Annual Meeting of the American Society of Bone and Mineral Research. Houston, TX.
35. Mellor LF, Baker T, Hiremath M, **Loboa EG**, Oxford JT (Apr 2014). Effects of spaceflight on subchondral bone and articular cartilage health: are they good neighbors? World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases. Seville, Spain.

36. Bodle JC, Tuin S, Charoenpanich A, McCullen S, Marvel S, **Loboa EG** (Mar 2014). Functional tissue engineering: mechanobiology of adipose derived stem cells. 18<sup>th</sup> Annual Regenerative Medicine Workshop. Hilton Head Island, SC. Podium Presentation.
37. Mellor L, Catlin L, Baker T, Hiremath M, **Loboa EG**, Oxford JT (Feb 2014). Sclerostin is up-regulated in articular chondrocytes exposed to simulated microgravity. 2014 NASA Human Research Program Investigators' Workshop. Houston, TX.
38. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Nov 2013). Skin tissue engineering for the infected wound site: evaluations of PLA nanofibers and novel approach for silver ion release in a co-culture system of keratinocytes and Staphylococcus aureus. TERMIS 2013 Annual Meeting. Atlanta, GA.
39. Teeter SD, Charoenpanich A, **Loboa EG** (Nov 2013). PDLIM4 and Corin are key regulators of hMSC osteogenesis and terminal differentiation in hypoxic conditions. TERMIS 2013 Annual Meeting. Atlanta, GA.
40. Tuin SA, Cunningham DJ, Pfeiler TW, Bernacki SH, Pourdeyhimi B, **Loboa EG** (Nov 2013). 3-D computational modeling of fluid flow over winged fibers: winged fibers enhance shear stress and Runx2 expression in hASC. Proceedings of the 2013 Annual Joint Meeting of the Materials Research Society and Materials Information Society. Raleigh, NC.
41. Mellor L, Catlin L, Baker T, Hiremath M, **Loboa EG**, Oxford JT (Oct 2013). Sclerostin is up-regulated in articular chondrocytes exposed to simulated microgravity. American Society of Bone and Mineral Research 2013 Annual Meeting. Baltimore, MD.
42. Mohiti-Asli M, Murphy S, Saha S, Pourdeyhimi B, Atala A, **Loboa EG** (Oct 2013). Anti-inflammatory nanofibers for wound healing applications. 2013 North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Winston-Salem, NC. Podium Presentation.
43. Cai S, Asli M, Yang Y, **Loboa EG** (Oct 2013). Pure (100%) soyprotein electrospun fibers for wound healing applications. 2013 North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Winston-Salem, NC.
44. Bodle J, Williams R, Atchison L, Bernacki S, **Loboa EG** (Oct 2013). The combined effects of simulated microgravity and radiation on cartilage health. 2013 NC Cartilage-Arthritis Research Alliance (NC-CARA) Meeting. Winston-Salem, NC.
45. Mellor L, Willey J, Hiremath M, **Loboa EG**, Oxford JT (Oct 2013). Effects of extracellular calcium in human and porcine adipose derived stem cell differentiation. 2013 North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Winston-Salem, NC. Podium Presentation.
46. Tuin SA, Cunningham DJ, Pfeiler TW, Bernacki SH, Pourdeyhimi B, **Loboa EG** (Oct 2013). 3-D computational modeling of fluid flow over winged fibers: winged fibers enhance shear stress and Runx2 expression in hASC. 2013 North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Winston-Salem, NC.
47. Mellor L, Williams J, Guilak F, Koh S, Piedrahita J, **Loboa EG** (Oct 2013). Effects of extracellular calcium in human and porcine adipose derived stem cell differentiation. 2013 North Carolina Tissue Engineering and Regenerative Medicine Society Conference. Winston-Salem, NC. Podium Presentation.
48. Tuin S, Miller S, Cunningham D, Pfeiler TW, Bernacki SH, Pourdeyhimi B, **Loboa EG** (Sep 2013). Winged fiber scaffolds enhance hASC proliferation, osteogenesis, and mechanosensitivity. BMES 2013 Annual Meeting. Seattle, WA. Podium Presentation.

49. Bodle JC, Williams R, Veland I, Christensen S, **Loboa EG** (Sep 2013). Primary cilia on the differentiating adipose derived stem cell: investigating regenerative mechanisms on the cell level. BMES 2013 Annual Meeting. Seattle, WA.
50. Mohiti-Asli M, Murphy S, Saha S, Pourdeyhimi B, Atala A, **Loboa EG** (Sep 2013). In vitro and in vivo investigations of poly(L-lactic acid)/ibuprofen nanofibers for skin wound healing applications. BMES 2013 Annual Meeting. Seattle, WA.
51. Mathieu PS, Bodle JC, **Loboa EG** (Sep 2013). Finite element model exploring the role of primary cilia length adaptation on hASC in response to mechanical load. BMES 2013 Annual Meeting. Seattle, WA.
52. Bodle JC, Williams RB, Rubenstein CD, **Loboa EG** (Feb 2013). Adipose stem cell primary cilia exhibit conformational changes in response to chemical and mechanical stimulation. 2013 Annual Meeting of the Nordic Cilia and Centrosome Network. Sigtuna, Sweden. Podium Presentation.
53. Tuin SA, Williams J, Mohiti-Asli M, Dent M, Kannan A, Hluck B, **Loboa EG** (Jan 2013) Osteochondral tissue engineering using human adipose derived stem cells. 2013 Annual Meeting of the Orthopaedic Research Society. San Antonio, TX.
54. Lott LQ, Mohiti-Asli M, Loboa EG (Nov 2012). Electrospinning PLA nanofibers containing ibuprofen for wound healing applications. 2012 Annual Biomedical Research Conference for Minority Students (ABRCMS).
55. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Oct 2012). Antimicrobial PLA nanofibers releasing silver ions as a skin substitute for burn wound healing applications. 2012 Annual Meeting of the Biomedical Engineering Society. Atlanta, GA. Podium Presentation.
56. Czernuszewicz T, Charoenpanich A, **Loboa EG**, Gallippi CM (Oct 2012). Nondestructive mechanical testing of human knee meniscus allografts using MSSER ultrasound. 2012 IEEE International Ultrasonics Symposium. Dresden, Germany.
57. Bodle JC, Mathieu PS, Phillips ME, Rubenstein C, Bernacki SH, **Loboa EG** (Oct 2012). Primary cilia on adipose-derived stem cells in 3D culture: what is the structure-function relationship? 2012 Annual Meeting of the Biomedical Engineering Society. Atlanta, GA. Podium Presentation.
58. Bodle JC, Phillips ME, Rubenstein C, **Loboa EG** (Sep 2012). Primary cilia: does cilium architecture predict lineage specification in adipose-derived stem cells. TERMIS World 2012 Conference. Vienna, Austria. Podium Presentation.
59. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK, Lalush DS, Dirschl DR, **Loboa EG** (Sep 2012). Microarray analysis of human MSC in 3D collagen culture: 10% uniaxial cyclic tensile strain upregulates genes associated with musculoskeletal and cardiovascular development. TERMIS World 2012 Conference. Vienna, Austria.
60. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Sep 2012). Silver releasing nanofibrous skin substitute. 2012 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Raleigh, NC.
61. Williams RB, Bodle JC, Rubenstein CD, **Loboa EG** (Sep 2012). Adipose stem cell primary cilia exhibit conformational changes in response to chemical and mechanical stimulation. 2012 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Raleigh, NC.
62. Mathieu PS, Bodle JC, **Loboa EG** (Sep 2012). Computational modeling of primary cilia of various conformation on cells exposed to 3D tensile strain. 2012 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Raleigh, NC.

63. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK, Lalush DS, Dirschl DR, **Loboa EG** (Sep 2012). Microarray analysis of human MSC from osteoporotic donors in 3D collagen culture: the effect of 10% uniaxial cyclic tensile strain. 2012 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Raleigh, NC.
64. Tuin SA, Miller SM, Ganesh V, Cunningham DJ, Pfeiler TW, Bernacki SH, Pourdeyhimi B, **Loboa EG** (Sep 2012). Pulsatile fluid flow increases Runx2 expression in human adipose derived stem cells cultured on novel three-dimensional high surface area poly(L-lactic acid) scaffolds. 2012 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Raleigh, NC.
65. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK Lalush DS, Dirschl D, **Loboa EG** (Aug 2012). Microarray analysis of human MSC from osteoporotic donors in 3D collagen culture: 10% uniaxial cyclic tensile strain upregulates genes associated with bone formation and angiogenesis. Gordon Research Conference on Musculoskeletal Biology and Bioengineering. Proctor Academy, Andover, NH.
66. Charoenpanich A, Bodle JC, McCullen SD, **Loboa EG** (Mar 2012). Biomimetic material and mechanical stimuli for functional bone tissue engineering using human adipose-derived stem cells. 2012 Hilton Head Regenerative Medicine Conference. Hilton Head Island, SC. Podium Presentation.
67. Charoenpanich A, Wall ME, Tucker CJ, Andrews D, Lalush DS, **Loboa EG** (Feb 2012). Microarray analysis of human mesenchymal stem cells in 3D collagen culture: 10% uniaxial cyclic tensile strain upregulates genes associated with differentiation of bone cell lines in the absence of soluble osteogenic inductive factors. ORS 2012 Annual Meeting. San Francisco, CA. Podium Presentation.
68. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Feb 2012). Creation of core-sheath PLA nanofibers doped with tricalcium phosphate as a controlled release system for bone tissue engineering applications. ORS 2012 Annual Meeting. San Francisco, CA.
69. Bodle JC, Rubenstein CD, Phillips ME, Charoenpanich A, Bernacki SH, **Loboa EG** (Feb 2012). Primary cilia exhibit 2D and 3D sensitivity to substrate environment: implications for adipose stem cells in musculoskeletal tissue engineering. ORS 2012 Annual Meeting. San Francisco, CA.
70. Charoenpanich A, Bodle JC, McCullen SD, Bernacki SH, **Loboa EG** (Jan 2012). Functional bone tissue engineering using human adipose derived stem cells and biomimetic physical stimuli. 2012 BMES-SPRBM Conference on Cellular and Molecular Bioengineering. San Juan, Puerto Rico. Podium Presentation.
71. Charoenpanich A, Williams J, Spang J, Bernacki SH, **Loboa EG** (Dec 2011). Proliferation and chondrogenic differentiation of human adipose-derived stem cells in a needle-punched, porous, decellularized human allograft-derived meniscus. The TERMIS North America 2011 Annual Conference & Exposition. Houston, TX.
72. Bodle JC, Williams JM, Phillips ME, SooHoo JR, Sakhare AR, Bernacki SH, **Loboa EG** (Dec 2011). Novel tensile strain bioreactor for analysis of primary cilia-extracellular matrix interactions in adipose-derived stem cells. The TERMIS North America 2011 Annual Conference & Exposition. Houston, TX.
73. Charoenpanich A, Spang J, **Loboa EG** (Nov 2011). Cell seeding, migration, proliferation and alignment of human adipose derived stem cells in a decellularized needle punched porous human allograft meniscus. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC. Podium Presentation.
74. Shi H, Charoenpanich A, Pourdeyhimi B, **Loboa EG** (Nov 2011). Human adipose derived stem cell migration and proliferation in stacked, porous, poly(L-lactic acid) scaffolds. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.



75. Williams JM, Kannan A, Dent MR, Estes BT, Moutos FT, Hluck BH, Guilak F, **Loboa EG** (Nov 2011). Elevated extracellular calcium inhibits chondrogenic differentiation of human adipose derived stem cells in pellet culture. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
76. Rubenstein CD, Bodle JC, Phillips ME, **Loboa EG** (Nov 2011). Human adipose derived stem cells exhibit changes in primary cilia conformation and lineage specification in response to varying substrate stiffness. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
77. Bodle JC, Rubenstein CD, Phillips ME, Bernacki SH, **Loboa EG** (Nov 2011). Primary cilia dynamically modulate phenotypic specification in adipose-derived stem cells. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
78. Saha S, Mohiti-Asli M, Gracz H, Pourdeyhimi B, **Loboa EG** (Nov 2011). Ibuprofen loaded PLA scaffolds for wound healing applications. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
79. Mathieu PM, Cunningham DJ, Pourdeyhimi B, **Loboa EG** (Nov 2011). Finite element analysis of fluid shear stress in spunbond poly(L-lactic acid) (PLA) scaffolds in response to varying fluid flow rates. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
80. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Nov 2011). Development of antimicrobial electrospun scaffolds for wound healing applications. 2011 Annual Meeting of the North Carolina Tissue Engineering and Regenerative Medicine Society. Winston-Salem, NC.
81. Bodle JC, Phillips ME, Rubenstein C, Charoenpanich A, Bernacki SH, **Loboa EG** (Oct 2011). Primary cilia modulate induction of osteogenic differentiation in adipose derived stem cells. 2011 Annual Meeting of the Biomedical Engineering Society. Hartford, CT. Podium Presentation.
82. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Oct 2011). Creation of porous PLA nanofibers doped with tricalcium phosphate for bone tissue engineering applications. 2011 Annual Meeting of the Biomedical Engineering Society. Hartford, CT.
83. Charoenpanich A, Spang J, **Loboa EG** (Oct 2011). Human adipose derived stem cell seeding, migration, and proliferation in a needle punched porous human allograft meniscus. 2011 Annual Meeting of the Biomedical Engineering Society. Hartford, CT.
84. Mohiti-Asli M, Saha S, Pourdeyhimi B, **Loboa EG** (Oct 2011). Incorporation of different drugs in PLA electrospun nanofibers for drug delivery applications. 2011 Annual Meeting of the Biomedical Engineering Society. Hartford, CT.
85. Bakshi S, Jiang X, **Loboa EG** (Oct 2011). Cell characterization using high frequency ultrasound. 2011 IEEE International Ultrasonics Symposium. Orlando, FL. Podium Presentation.
86. **Loboa EG** (Aug 2011). Nanofibrous and Nanocomposite Materials and Human Adipose-Derived Stem Cells: Functional Bone Tissue Engineering Applications. Nanofibers for the 3<sup>rd</sup> Millennium Conference. Raleigh, NC. Podium Presentation.
87. Charoenpanich A, Bodle JC, McCullen SD, Pfeiler TW, Bernacki SH, **Loboa EG** (Apr 2011). Human adipose derived stem cells in functional bone tissue engineering. 2<sup>nd</sup> Annual Translational Regenerative Medicine Forum. Washington, DC.
88. Charoenpanich A, Bodle JC, McCullen SD, Pfeiler TW, Bernacki SH, **Loboa EG** (Mar 2011). Functional bone tissue engineering using human adipose-derived stem cells and biomimetic physical stimuli. 15<sup>th</sup>

Annual Hilton Head Workshop: Regenerative Medicine Innovations for Clinical Applications. Hilton Head, SC. Podium Presentation.

89. Charoenpanich A, Bodle JC, McCullen SD, Pfeiler TW, Bernacki SH, **Loboa EG** (Jan 2011). Functional bone tissue engineering using human adipose-derived stem cells and biomimetic physical stimuli. 2011 Annual Meeting of the BMES-SPRBM Society. Miami, FL.
90. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK, Lalush DS, **Loboa EG** (Dec 2010). Microarray analysis of human adipose-derived stem cells in 3D collagen scaffolds undergoing osteogenic differentiation in the presence and absence of cyclic tensile strain. The TERMIS North America 2010 Annual Conference & Exposition. Orlando, FL. Finalist student poster competition.
91. Bodle JC, Rubenstein CD, Phillips ME, Bernacki SH, **Loboa EG** (Dec 2010). The primary cilium: a receptor mediator of osteogenesis in human adipose derived stem cells? The TERMIS North America 2010 Annual Conference & Exposition. Orlando, FL.
92. Mohiti-Asli M, Pourdeyhimi B, **Loboa EG** (Nov 2010). Manufacturing core-sheath nanofiber scaffolds containing silver nanoparticles for tissue engineering applications. Proceedings of the 12<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC. Podium Presentation.
93. Kannan A, Cunningham DJ, Bodle JC, Charoenpanich A, Miller P, Narayan R, Bernacki SH, **Loboa EG** (Nov 2010). The effect of cyclic hydrostatic pressure on chondrogenic gene expression of hASC seeded in novel 3D PLA constructs. Proceedings of the 12<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC.
94. Cunningham DJ, Jin E, Pfeiler WT, Bodle JC, Charoenpanich A, Bernacki SH, Pourdeyhimi B, **Loboa EG** (Nov 2010). Viability and differentiation of mixed donor human adipose-derived stem cells (hASC) in a fluid shear stress environment. Proceedings of the 12<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC.
95. Hardin JW, Bodle JC, Charoenpanich A, Bernacki SH, **Loboa EG** (Nov 2010). Evaluation of age-related effects on human adipose-derived stem cells osteogenic potential using age-matched superlots. Proceedings of the 12<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC.
96. Charoenpanich A, Spang J, **Loboa EG** (Nov 2010). hASC seeding, migration, and proliferation in a porous allograft-derived meniscus scaffold. Annual Proceedings of the 12<sup>th</sup> North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC.
97. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK, Lalush DS, **Loboa EG** (Nov 2010). Microarray analysis of hASC in 3D collagen culture: 10% uniaxial cyclic tensile strain causes upregulation of angiogenic factors. Annual Proceedings of the 12<sup>th</sup> North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC.
98. Bodle JC, Rubenstein CD, Phillips ME, Bernacki SH, **Loboa EG** (Nov 2010). Primary cilia critically modulate human adipose derived stem cell (hASC) proliferation and differentiation signaling. Annual Proceedings of the 12<sup>th</sup> North Carolina Tissue Engineering and Regenerative Medicine Conference. Raleigh, NC.
99. Bodle JC, Sakhare AR, Qi J, Bernacki SH, Banes AJ, **Loboa EG** (Oct 2010). The primary cilium: a potential receptor antenna in human adipose derived stem cells? Proceedings of the BMES 2010 Annual Meeting. Austin, TX. Podium Presentation.

100. **Loboa EG** (Aug 2010). Nanofibrous and nanocomposite materials for functional bone tissue engineering using human adipose derived stem cells. Proceedings of Nanofibers for the 3<sup>rd</sup> Millennium: A Summit of the World's Leaders in Nanofibers. Raleigh, NC.
101. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK, Lalush DS, **Loboa EG** (Mar 2010). Microarray Analysis of Human Adipose-Derived Adult Stem Cells in 3D Collagen Scaffolds Undergoing Osteogenic Differentiation in the Presence and Absence of Cyclic Tensile Strain. Proceedings of the 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. New Orleans, LA.
102. McCullen SD, Bernacki SH, **Loboa EG** (Mar 2010). Elevated Ca<sup>2+</sup> greatly increases human adipose-derived stem cell mineralization in the absence and presence of osteogenic supplements. Proceedings of the 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. New Orleans, LA.
103. Bodle JC, Sakhare AR, Vidt ME, SooHoo JR, Haslauer CM, McCulloch RC, **Loboa EG** (Mar 2010). Novel tensile strain bioreactor for culture of three-dimensional tissue-engineered constructs. Proceedings of the 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. New Orleans, LA.
104. McCullen SD, Miller PR, Narayan RJ, **Loboa EG** (Mar 2010). Assembly of laser structured electrospun scaffolds for bone tissue engineering. Proceedings of the 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. New Orleans, LA.
105. Haslauer CM, Pourdeyhimi B, **Loboa EG** (Mar 2010). Islands-in-the-sea fibers with interconnected micropores for bone tissue engineering. Proceedings of the 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. New Orleans, LA.
106. McCullen SD, McQuilling JP, Grossfeld RM, Clarke LI, **Loboa EG** (Mar 2010). AC electric field exposure of 1 V/cm at 1 Hz accelerates and increases osteogenesis of human adipose-derived stem cells. Proceedings of the 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. New Orleans, LA. Podium Presentation.
107. Haslauer CM, Pourdeyhimi B, **Loboa EG** (Mar 2010). Validation Of Nanoporous Hollow Fiber Scaffolds for Bone Tissue Engineering Using hASCs. Proceedings of the 14<sup>th</sup> Annual Hilton Head Workshop: "Regenerative Medicine: Advancing to Next Generation Therapies." Hilton Head, SC. Podium Presentation.
108. McCullen SD, Miller PR, Gittard SD, Pourdeyhimi B, Narayan RJ, **Loboa EG** (Nov 2009). In situ collagen polymerization of layered cell-seeded electrospun scaffolds. Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC. Podium Presentation.
109. Marvel S, Okrasinski S, Bernacki S, Dayton PA, **Loboa EG** (Nov 2009). Functional bone tissue engineering of adult stem cells aided by low intensity pulsed ultrasound. Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC.
110. Miller PR, McCullen SD, Gittard SD, **Loboa EG**, Narayan RJ (Nov 2009). Assembly of laser structured electrospun scaffolds for bone tissue engineering. Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC.
111. Bodle JC, Sakhare AR, Qi J, Bernacki SH, Banes AJ, **Loboa EG** (Nov 2009). Primary cilia: potential mechanotransducers in human adipose derived stem cells? Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC.
112. Charoenpanich A, Wall ME, Tucker CJ, Andrews DMK, **Loboa EG** (Nov 2009). Upregulation of corin during osteogenic differentiation of human adipose derived adult stem cells in 3D collagen gel culture. Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC.

113. McQuilling JP, McCullen SD, Gorga RE, Grossfeld RM, Lubischer JL, Clarke LI, van Aalst JA, **Loboa EG** (Nov 2009). Electrical stimulation and ATP increase Cytoplasmic  $Ca^{2+}$  in adult human adipose derived stem cells. Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC.
114. McCullen SD, Onorato ML, Bernacki SH, **Loboa EG** (Nov 2009). Effect of varied extracellular  $Ca^{2+}$  on human adipose derived stem cell mineral formation. Proceedings of the 11<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine Conference. Winston-Salem, NC.
115. Lim JH, McCullen SD, **Loboa EG**, Olby NJ (Oct 2009). Effects of Extremely Low Frequency Electric Fields on Fetal Porcine Neural Progenitor Cells. Proceedings of Neuroscience 2009, Society for Neuroscience 39<sup>th</sup> Annual Meeting. Chicago, IL. Podium Presentation.
116. Marvel S, **Loboa EG**, Dayton PA (Sep 2009). Applications of low intensity pulsed ultrasound for functional bone tissue engineering using adult stem cells. Transactions of the IEEE International Ultrasonics Symposium. Rome, Italy. Podium Presentation.
117. Haslauer CM, Springer JC, Marcellin-Little DJ, Harrysson O, **Loboa EG** (Feb 2009). In vitro response of human adipose-derived adult stem cells to EBM-processed titanium implants. Proceedings of the 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. Las Vegas, NV.
118. McCullen SD, McQuilling JP, Gorga RE, Grossfeld RM, Clarke LI, **Loboa EG** (Feb 2009). Electric field exposure induces magnitude-dependent  $Ca^{2+}$  oscillations in human adipose-derived adult stem cells. Proceedings of the 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. Las Vegas, NV.
119. McCullen SD, Zhu Y, Gorga RE, **Loboa EG** (Feb 2009). Effect of electrospun PLA/TCP scaffolds on osteogenesis of human adipose-derived adult stem cells. Proceedings of the 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. Las Vegas, NV.
120. Pfeiler TW, Sumanasinghe RD, **Loboa EG** (Feb 2009). Computational and experimental analyses of effects of varied tensile strains on calcium production by human adipose-derived adult stem cells. Proceedings of the 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. Las Vegas, NV.
121. Puetzer JL, Finger AR, Bernacki SH, **Loboa EG** (Feb 2009). Chondrogenic effects of cyclic hydrostatic pressure on human adipose derived stem cells in 3-D agarose constructs. Proceedings of the 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. Las Vegas, NV.
122. McCullen SD, McQuilling JP, Gorga RE, Grossfeld RM, Clarke LI, van Aalst JA, **Loboa EG** (Nov 2008). Electric Field Exposure Induces Frequency-Dependent  $Ca^{2+}$  Oscillations in Human Adipose-Derived Adult Stem Cells. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC. Podium Presentation.
123. Bodle JC, Vidt ME, SooHoo JR, Haslauer CM, McCulloch RC, **Loboa EG** (Nov 2008). Tensile Strain Bioreactor with Force Feedback and Custom Incubator for Straining Cells in Three-Dimensional Culture. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC.
124. Charoenpanich A, Puvanesarajah V, Goicoechea G, Bernacki SH, Otey CA, van Aalst JA, **Loboa EG** (Nov 2008). Palladin Expression of Human Adipose-Derived Adult Stem Cells in 3D Collagen Gel Culture. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC.
125. Haslauer CH, Pourdeyhimi B, **Loboa EG** (Nov 2008). Nonwoven Structures with Interconnected Pore Configuration for Bone Tissue Engineering. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC.

126. Pfeiler TW, Sumanasinghe RD, **Loboa EG** (Nov 2008). Effects of Varied Cyclic Tensile Strain Magnitudes on hMSC Calcium Deposition in 3D Collagen Culture. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC.
127. Puetzer JL, Finger AR, Bernacki SH, van Aalst J, **Loboa EG** (Nov 2008). Effects of Cyclic Hydrostatic Pressure on Human Adipose and Bone Marrow Derived Stem Cells in 3-D Agarose Constructs. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC. Podium Presentation.
128. Springer JC, Haslauer C, Harrysson OL, **Loboa EG**, Marcellin-Little D (Nov 2008). Approach to Improving the Tissue Interfact for Load Bearing Osseointegrated Prosthesis via Cellular Response Analysis. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference. Raleigh, NC.
129. Reed CR, Han L, Caballero M, Andrady T, Saba SC, **Loboa EG**, van Aalst JA (Nov 2008). Comparison of Fat- and Umbilical Cord-Derived Mesenchymal Stem Cell Osteoinduction and Polycaprolactone and Poly(lactic-co-glycolytic) Acid Nanofibers. Proceedings of the 10<sup>th</sup> Annual North Carolina Tissue Engineering and Regenerative Medicine (NCTERM) Conference, Raleigh, NC. Podium Presentation.
130. McCullen SD, Hanson AD, Ramirez M, Cao X, **Loboa EG**, Lucia LA (Aug 2008). Renewable Biomedical Scaffolds for Tissue Augmentation. Amazon Meeting on Green Materials and Processes, Universidade Federal do Amazonas (UFAM), Manaus – Amazonas.
131. Reed CR, Han Li, Andrady A, Caballero M, Jack MC, Collins JB, Saba SC, **Loboa EG**, van Aalst JA (July 2008). Composite Tissue Engineering on Polycaprolactone Nanofiber Scaffolds. Proceedings of the 51<sup>st</sup> Annual Meeting of the Southeastern Society of Plastic and Reconstructive Surgeons, Boca Raton, FL. Podium Presentation.
132. Parsons GN, Hyde KG, McCullen SD, **Loboa EG** (June-July 2008). Atomic Layer Deposition for Biocompatible Coating and Bio-Functionalization of Fibrous Materials. Proceedings of the AVS Topical Conference on Atomic Layer Deposition (ALD 2008). Bruges, Belgium. Podium Presentation.
133. Pfeiler TW, Sumanasinghe RD, Banes AJ, **Loboa EG** (Mar 2008). Finite Element Modeling of 3D Human Mesenchymal Stem Cell-Seeded Collagen Matrices. Proceedings of the 54<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. San Francisco, CA.
134. Hanson AD, Marvel SW, Bernacki SH, Banes AJ, **Loboa EG** (Mar 2008). Mechanical Loading of Adipose-Derived Adult Stem Cells Enhances Osteogenesis. Proceedings of the 54<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. San Francisco, CA.
135. Sumanasinghe, RD, Qi, J, Wang, J, Tsuzaki, M, Wall, M, Pfeiler, W, **Loboa EG**, Banes, AJ (Mar 2008). Cell Orientation and Local Strain Distribution in an *In vitro* Achilles Tendon Tissue Engineering Model. Proceedings of the 54<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. San Francisco, CA.
136. Pfeiler TW, Sumanasinghe RD, **Loboa EG** (Mar 2008). Comparison of applied vs. local strains in human mesenchymal stem cell seeded 3D collagen gels. Proceedings of the 2008 Annual Meeting, Institute of Biological Engineering. Chapel Hill, NC.
137. Vidt ME, SooHoo JR, Haslauer CM, McCulloch RC, **Loboa EG** (Mar 2008). Tensile strain bioreactor with force feedback and custom incubator for straining cells in three-dimensional culture. Proceedings of the 2008 Annual Meeting, Institute of Biological Engineering. Chapel Hill, NC.
138. Puetzer JL, Finger AR, Bernacki SH, **Loboa EG** (Mar 2008). Effects of cyclic hydrostatic pressure on chondrogenesis of human adipose-derived adult stem cells. Proceedings of the 2008 Annual Meeting, Institute of Biological Engineering. Chapel Hill, NC.

139. Haslauer CM, Moghe AK, Gupta BS, **Loboa EG** (Mar 2008). Evaluation of collagen coated PCL electrospun scaffold for bone tissue engineering using human adipose-derived adult stem cells. 2008 Annual Meeting, Institute of Biological Engineering. Chapel Hill, NC.
140. McCullen SD, Young DA, SooHoo JR, Walker GM, **Loboa EG** (Mar 2008). A novel microfluidic platform for application of fluid shear stresses to cells in 3D culture. Proceedings of the 2008 Annual Meeting, Institute of Biological Engineering. Chapel Hill, NC.
141. Maudlin FW, Davis OB, Haider MA, **Loboa EG**, Pfeiler TW, Gallippi CM (Oct 2007). On the potential of combined ARFI and elastography to improve differentiation of material structure in viscoelastic tissue. 2007 IEEE Ultrasonics Symposium Proceedings. Vol(1-6): 2040-2045. Transactions of the IEEE Ultrasonics Symposium. New York, NY. Podium Presentation.
142. Pfeiler TW, Sumanasinghe RD, Banes AJ, **Loboa EG**. (Sep 2007). Anchor design for an improved three dimensional tensile strain bioreactor. Proceedings of the Annual Meeting of the Biomedical Engineering Society. Los Angeles, CA.
143. Hanson AD, Wall ME, Pourdeyhimi B, **Loboa EG**. (Sep 2007). Effects of oxygen plasma treatment on adipose-derived adult stem cell adherence. Proceedings of the Annual Meeting of the Biomedical Engineering Society. Los Angeles, CA.
144. Haslauer CM, Rouse J, **Loboa EG**, Monteiro-Riviere NA. (Sep 2007). Effects of strain on quantum dot nanoparticle uptake by human epidermal keratinocytes. Proceedings of the Annual Meeting of the Biomedical Engineering Society. Los Angeles, CA.
145. Purser M, Cansizoglu O., Haslauer CM, Harrysson OLA, **Loboa EG**, (Aug 2007). The Use of Layered Freeform Fabrication Technologies to Produce Tissue Engineering Scaffolds for Skull Patches. Proceedings of the Solid Freeform Fabrication Symposium. Austin, TX.
146. Hromadka M, Collins JB, Andrady T, Han L, Kolappa KK, Bernacki S, **Loboa EG**, van Aalst JA (June 2007). Fibroblast Incorporation into Nanofiber Scaffolds for Tissue Engineering. Proceedings of the Annual Meeting of Southeastern Society of Plastic and Reconstructive Surgeons. Westin, FL. Podium Presentation.
147. Yan D, Wright M, Holland D, Pfeiler TW, **Loboa EG**, Everett ET (Mar 2007). Genetic background modifies the effects of fluoride on bone quality. Proceedings of the IADR/AADR/CADR 85<sup>th</sup> General Session and Exhibition. New Orleans, LA. Podium Presentation.
148. Hardy A, Cairns B, Hultman CS, Kidd M, **Loboa EG**, van Aalst JA (Mar 2007). Patterns of Heterotopic Ossification in Burn Patients. American Burn Association. San Diego, CA.
149. Sumanasinghe RD, **Loboa EG** (Feb 2007). Mesenchymal stem cell seeded collagen matrices for bone repair: effects of cyclic tensile strain on osteogenesis and tensile properties. Proceedings of the 53<sup>rd</sup> Annual Meeting of the Orthopaedic Research Society. San Diego, CA.
150. Wall ME, Bernacki SH, **Loboa EG** (Dec 2006). Growth and differentiation potential of adipose-derived hMSCs after subculture. Proceedings of the American Society for Cell Biology 46<sup>th</sup> Annual Meeting. San Diego, CA.
151. Losken HW, **Loboa EG**, van Aalst JA (Oct 2006). Stem Cell Research for Constructing Facial and Skull Bones. Proceedings of the South African Plastic Surgery Congress. Drakensburg, South Africa. Podium Presentation.
152. Hardy A, **Loboa EG**, Carins, B, CS Hultman, Kidd M, van Aalst JA (Aug 2006). Stem Cell Solutions to Heterotopic Ossification in Burn Patients. North Carolina Plastic Surgery Society. Pinehurst, NC. Podium Presentation.

153. Kolappa KK, **Loboa EG**, Losken HW, van Aalst JA (Aug 2006). Tissue Engineered Bone for Habilitation of the Alveolar Cleft. Proceedings of the North Carolina Plastic Surgery Society. Pinehurst, NC. Podium Presentation.
154. Kwan MD, Wan DC, **Loboa EG**, Fang TD, Longaker MT (June 2006). Murine models of mandibular distraction osteogenesis: towards defining the mechanical environment and the role of angiogenesis. Proceedings of the 5<sup>th</sup> International Congress of Maxillofacial and Craniofacial Distraction. Paris, France. Podium Presentation.
155. van Aalst JA, **Loboa EG** (Apr 2006). Tissue engineering bone for habilitation of the alveolar cleft. Proceedings of the 63<sup>rd</sup> Annual Meeting of the American Cleft Palate-Craniofacial Association. Translational Ideas: From Basic Science to Evidence Based Practice. Vancouver, British Columbia. Podium Presentation.
156. Pfeiler TW, Lalush DS, **Loboa EG** (Mar 2006). Comparison of CT-to-FEA Methods for Predicting Strains in a Long Bone. Proceedings of the 52<sup>nd</sup> Annual Meeting, Orthopaedic Research Society. Chicago, IL.
157. Sumanasinghe RD, Bernacki SH, **Loboa EG** (Sep 2005) Effect of mechanical stimulation on osteogenic differentiation of mesenchymal stem cells in 3D matrices. Proceedings of the 2005 Biomedical Engineering Society meeting. Baltimore, MD. Podium Presentation.
158. Finger AR, Bernacki SH, **Loboa EG** (Sep 2005) Application of Cyclic Hydrostatic Pressure to Promote Chondrogenesis in Human Mesenchymal Stem Cells. Proceedings of the 2005 Biomedical Engineering Society meeting. Baltimore, MD.
159. Wall ME, Otey C, **Loboa EG** (June 2005). Human mesenchymal stem cells express palladin. Proceedings of the ASME 2005 Summer Bioengineering Conference. Vail, CO. Podium Presentation.
160. Sumanasinghe RD, Bernacki SH, **Loboa EG** (June 2005). Effects of uniaxial cyclic tensile strain on osteogenic differentiation of human mesenchymal stem cells. Proceedings of the ASME 2005 Summer Bioengineering Conference. Vail, CO. Podium Presentation.
161. Pfeiler TW, Finley CW, Lalush DS, **Loboa EG** (June 2005). Comparison of semi-automated generation methods for finite element analysis of canine radius. Proceedings of the ASME 2005 Summer Bioengineering Conference. Vail, CO.
162. Hanson AD, Walker G, Sumanasinghe RD, Wall ME, **Loboa EG** (June 2005). Seeding of human mesenchymal stem cells onto poly-l-lactic acid (PLLA) scaffolds in a flow perfusion microfluidic chamber. Proceedings of the ASME 2005 Summer Bioengineering Conference. Vail, CO.
163. Sumanasinghe RD, Bernacki SH, King MW, **Loboa EG** (Apr 2005). Human mesenchymal stem cell seeded 3D collagen matrices for bone tissue engineering: effects of uniaxial cyclic tensile strain, cell density and media conditions on matrix contraction. Proceedings of the 30<sup>th</sup> Annual Meeting of the Society for Biomaterials. Memphis, TN.
164. Wang J, Kheradpir K, Qi J, **Loboa EG**, Grant E. Banes A (Apr 2005). Novel bioreactor system for long-term vascular graft culture. Proceedings of FASEB Experimental Biology 2005. San Diego, CA.
165. Sumanasinghe RD, Bernacki SH, **Loboa EG** (Feb 2005). Tensile strain induced osteogenic differentiation of mesenchymal stem cells in linear 3D matrices in vitro: effects of cell density, media, & duration of strain. Transactions of the 51<sup>st</sup> Annual Meeting of the Orthopaedic Research Society. Washington DC.
166. Yeago CA, Dulaney KO, Bernacki SH, **Loboa EG** (Feb 2005). Both ramp and steady applications of cyclic hydrostatic pressure cause a positive chondrogenic response in human mesenchymal stem cells in agarose

- constructs. Transactions of the 51<sup>st</sup> Annual Meeting of the Orthopaedic Research Society. Washington DC.
167. McCord MG, Blanchard SM, **Loboa EG**, Mente PL. Putting the “Engineering” into tissue engineering: Development of undergraduate tissue engineering course materials and laboratory experiments. Proceedings of the 2004 Annual Conference of the American Association for Engineering Education, Session 2109. Salt Lake City, UT. Podium Presentation.
  168. Blanchard SM, McCord MG, Mente PL, Lalush DS, Abrams CF, **Loboa EG**, Nagle HT. Rubrics cubed: tying grades to assessment to reduce faculty workloads. Proceedings of the 2004 Annual Conference of the American Association for Engineering Education, Session 1609. Salt Lake City, UT. Podium Presentation.
  169. Morgan EF, **Loboa EG**, Fang TD, Longaker MT, Carter DR (Sep 2003). Temporal variations in mechanical stimuli during mandibular distraction osteogenesis. Proceedings of the International Society for Craniofacial Surgery, Xth International Congress. Monterey, CA.
  170. Fong KD, Warren SM, **Loboa EG**, Henderson JH, Fang TD, Nacamuli RP, Carter DR, Longaker MT (Sep 2003). Mechanical strain effects on dura mater biology: implications for understanding immature calvarial healing. Proceedings of the International Society for Craniofacial Surgery, Xth International Congress. Monterey, CA. Podium Presentation.
  171. Fong KD, **Loboa EG**, Nacamuli RP, Song HM, Fang TD, Salim A, Shi YY, Longaker MT (Sep 2003). Calvarial osteoblast response to mechanical tensile strain. Proceedings of the International Society for Craniofacial Surgery, Xth International Congress. Monterey, CA.
  172. **Loboa EG**, Fang TD, Parker DW, Warren SM, Fong KD, Longaker MT, Carter DR (Feb 2003). Mechanobiology of Mandibular Distraction Osteogenesis – Finite Element Analyses with a Rat Model. Proceedings of the 49<sup>th</sup> Annual Meeting, Orthopaedic Research Society. New Orleans, LA.
  173. **Loboa EG**, Fang TD, Warren SM, Fong KD, Carter DR, Longaker MT (Oct 2002). Mechanobiology of Distraction Osteogenesis. Proceedings of the Surgical Forum at the 2002 Clinical Congress. San Francisco, CA. Podium Presentation.
  174. Fong KD, Warren SM, Fang TD, Cowan CM, **Loboa EG**, Carter DR, Longaker MT (Oct 2002). The Effects of Mechanical Strain on Dura Mater Biology: Implications for Immature Calvarial Healing. Proceedings of the Surgical Forum at the 2002 Clinical Congress. San Francisco, CA.
  175. **Loboa EG**, Fang TD, Warren SM, Fong KD, Pierre JB, Longaker MT, Carter DR (Apr 2002). Mechanical Stresses Imposed during Rat Mandibular Distraction Osteogenesis. Proceedings of the 47<sup>th</sup> Annual Meeting, Plastic Surgery Research Council. Boston, MA.
  176. Song HM, Fong KD, Warren SM, Fang TD, Cowan CM, Gonzalez O, **Loboa EG**, Carter DR, Longaker MT (Apr 2002). Equibiaxial Strain Affects Dura Mater Biology. Proceedings of the 47<sup>th</sup> Annual Meeting, Plastic Surgery Research Council. Boston, MA.
  177. **Loboa EG**, Wren TAL, Beaupré GS, Carter DR (Mar 2002). Mechanobiology of Cartilage, Fibrocartilage, and Fibrous Tissue Regeneration. Stanford University Bio-X Sponsored Symposium on Cartilage Tissue Engineering. Stanford, CA.
  178. **Loboa EG**, Wren TAL, Carter DR (Feb 2002). Mechanobiology of Soft Skeletal Tissue Regeneration. Proceedings of the 48<sup>th</sup> Annual Meeting, Orthopaedic Research Society. Dallas, TX. Podium Presentation.
  179. **Loboa EG**, Wren TAL, Beaupré GS, Carter DR (Oct 2001). Mechanobiology of Soft Skeletal Tissue Regeneration: A Mathematical Approach for Describing Material Property Changes during Soft Skeletal Tissue Formation. Biomedical Computation at Stanford. Stanford, CA. Winner, Best Poster Award.



180. Bouletreau PJ, Warren SM, Paccione MF, Greenwald JA, Nijher NS, Kummer FJ, LeGeros RZ, Grayson BH, McCarthy JG, **Loboa EG**, Carter DR, Longaker MT (June 2001). New Developments in Craniofacial Distraction. Proceedings of the 3<sup>rd</sup> International Congress of Craniofacial and Maxillofacial Distraction. Paris, France. Podium Presentation.
181. **Loboa Polefka EG**, Beaupré GS, Carter DR (Mar 2000). Stress and strain distributions are correlated with pseudarthrosis development. Proceedings of the 46<sup>th</sup> Annual Meeting of the Orthopaedic Research Society. Orlando, FL.
182. **Loboa Polefka EG**, Beaupré GS, Carter DR (Feb 2000). Mechanobiology of delayed fracture healing. Proceedings of the 2<sup>nd</sup> National Rehabilitation Research & Development Conference. Arlington, VA.
183. Carter DR, **Loboa Polefka EG**, Beaupré GS (Dec 1999). Mechanical influences on skeletal regeneration. Proceedings of the Toyota International Symposium on Human Life Support Biomechanics. Nagoya, Japan. Podium Presentation.
184. Carter DR, **Loboa Polefka EG**, Beaupré GS (Dec 1999). Mechanical influences on skeletal regeneration and bone resorption. Bone Engineering Workshop. Toronto, Canada. Podium Presentation.
185. **Loboa EG**, Sarin VK, Beaupré GS, Kiratli BJ, Carter DR, van der Meulen MCH (Aug 1997). Fracture risk predictions using DXA imaging. National Bioengineering Career Symposium. Seattle, WA.

### Patents Issued

1. U.S. Patent No. 9,043,156. Methods, systems and computer readable media for monitored application of mechanical force to samples using acoustic energy and mechanical parameter value extraction using mechanical response models. May 26, 2015.

### Patents/Disclosures Filed

1. NCSU Disclosure No. 15069. Biodegradable nanofibers for delivery of stem cells in treatment of glioblastoma. Sept. 5, 2014.
2. NCSU Disclosure No. 15062. Fabrication of 100% pure soy protein nonwovens at large industrial scale by solution blowing technology. Aug. 25, 2014.
3. NCSU Disclosure No. 14246. Manufacture of lightweight, low density hollow mushroom-gilled fibers. Aug. 18, 2014.
4. NCSU Disclosure No. 14233. Multifunctional nanofibrous wound dressings. May 22, 2014.
5. U.S. Patent Application Serial No. 14/437,624. Nonwoven fiber materials. Nov. 21, 2012.
6. U.S. Patent Application Serial No. 12/607,986. Methods, systems and computer readable media for monitored application of mechanical force to samples using acoustic energy and mechanical parameter value extraction using mechanical response models. Oct. 28, 2009.
7. NCSU Disclosure No. 08097. Tensile strain bioreactor with force feedback and custom incubator for applying tensile strain to cell-seeded three-dimensional scaffolds. Mar. 17, 2008.
8. NCSU Disclosure No. 07050. Mold, inverted transwell, and reservoirs for novel fluid shear/flow perfusion bioreactor. Nov. 2, 2006.
9. NCSU Disclosure No. 07020. Selectively porous bicomponent fibers & fabrics. Oct. 10, 2006.
10. NCSU Disclosure No. 06114. Tensile strain bioreactor for applying tensile strain to cell-seeded three-dimensional scaffolds. Mar. 15, 2006.
11. U.S. Patent Application Serial No. 11/741,390. Bioreactor device for exposing a cell culture to a fluid shear force imparted by a laminar fluid flow. Oct. 1, 2005.

**Current Research Grants and External Funding**

1. NSF/CBET 1702841 Loboa (PI) 09/01/17 – 08/31/21  
Collaborative Research: 3D-Biofabrication of hASC-based Biomimetic Osteochondral Tissue and the Role of Extracellular Calcium Receptor.  
Role: PI \$396,359 (Loboa Direct and Indirect costs) Total Project = \$600,000
2. Missouri Department of Higher Education Loboa (PI) \*\*07/01/20 – Current  
Imaging the Future - Clinical Service Engineering for Missouri  
Role: PI \$5,114,444 (Direct & Indirect Costs; Request & Cost Share)  
\*\* Recommended to Governor by the Missouri Board of Higher Education for state funding in FY20 and approved and awarded. Funding was withheld until FY22 due to Covid-19 budget cuts. Due to SMU Provost appointment, all funding and research maintained and overseen by MU.

**Past Research Grants and External Funding**

1. NIH SBIR 1R43OD026279 CryoCrate (PI) 09/01/18 – 08/31/19  
In-Situ Cryopreservation without Cryoprotectants  
Role: Co-I (Academic PI) \$90,113.00 (Loboa Direct & Indirect costs)
2. UNC GA Research Opportunities Initiative Award Jay/Ligler (PI) 07/01/15 – 06/31/18  
Integrating engineering with pharmaceutical sciences to improve the delivery of therapeutic and diagnostic agents  
Role: Co-PI on Project 3 \$1,830,000
3. OREF 15-059 Spang (PI) 07/01/15 – 06/30/18  
Development of a functional osteochondral replacement graft: 3D tissue engineering and biomimetic stem cell guidance.  
Role: Co-PI \$250,000 (Direct and Indirect costs)
4. NCSU Chancellor's Faculty Excellence Program Ghashghaei (PI) 08/15/15 – 07/31/18  
Faculty cluster hire in quantitative and computational developmental biology  
Role: College of Engineering Lead (*until took position as MU COE Dean*) \$4-6 million
5. NWI 14-160 Loboa (PI) 01/05/15 – 01/14/18  
Structure-Process-Property Relationship of Additive Loaded SpunBlown Nonwovens.  
Role: PI \$150,000 (Direct costs)
6. NIH/NIA 1-F30-AG040868-01 O'Connor (PI) 07/01/11 – 05/31/16  
Osmotic Signaling in Chondrocyte Aging & Osteoarthritis  
Mentor to MD/PhD candidate Chris O'Connor for graduate research in osteoarthritis.  
Role: Co-I and UNC Advisor \$161,689
7. NIH R37AR049003 Loeser (PI) 04/01/15 – 03/31/16  
Integrins and Mechanotransduction in Cartilage  
Role: Co-I \$152,000
8. Dick & Marlene Daugherty Entrepreneurialism Endowment Loboa (PI) 04/01/15 – 03/31/16  
Precision Diagnostics/PrecisiBand start-up endeavors  
Role: Company Founder & PI \$3,500 (Direct costs)

9. NSF/CBET 1133427 Loboa (PI) 01/15/12 – 01/14/16  
 IDR: Primary Cilia as Sensors of Electric Field during Electrical Stimulation Induced hASC Osteogenesis  
 Investigation of role of primary cilia as mechanotransduction mechanism of AC electric fields during  
 electric field stimulation of hASC osteogenic differentiation.  
 Role: PI \$594,210
  
10. NSF CMMI/BMMB: Conference Support Award Loboa (PI) 01/06/15 – 01/05/16  
 2015 Cellular and Molecular Bioengineering (CMBE) Conference  
 The major goal of this project is to provide funding for students, trainees, and young faculty to attend  
 and present work at the 2015 BMES Cell and Molecular Bioengineering Conference.  
 Role: PI \$15,000 (Direct costs)
  
11. NIH/NIBIB/NCI/NICHHD R13 Loboa (PI) 01/06/15 – 01/05/16  
 2015 CMBE Conference: From Womb to Tomb: Mechanobiology of Generation, Regeneration and  
 Degeneration  
 The major goal of this project is to provide funding for students, trainees, and young faculty to attend  
 and present work at the 2015 BMES Cell and Molecular Bioengineering Conference.  
 Role: PI \$15,000 (Direct costs)
  
12. William R. Kenan Jr. Institute for Engineering, Loboa (PI) 01/03/15 – 01/02/16  
 Technology and Science  
 The Angiogenic and Osteogenic Effects of Cyclic Tensile Strain on a Co-culture of Adipose-Derived  
 Stem and Endothelial Cells  
 Investigation of mechanical effects on paracrine signaling between adipose stem cells and endothelial  
 cells for enhanced bone formation  
 Role: PI \$15,000 (Direct costs)
  
13. National Space Biomedical Research Institute Mellor (PI) 12/01/14 – 11/30/15  
 Crosstalk between subchondral bone and articular cartilage in reduced gravity may contribute to  
 catastrophic joint damage.  
 Role: PI to Liliana Mellor, Research Assistant Professor in my lab \$50,000
  
14. University Faculty Scholars Program Loboa 08/15/12 – 10/15/15  
 University Faculty Scholar Award  
 Recognition of emerging academic leaders. Awarded title from university to include annual supplement  
 of \$10,000/year for 5 years toward supplemental salary or programmatic support.  
 Role: Awardee \$50,000 (Direct costs)
  
15. NIH CTSA 550KR71418 Loboa (PI) 10/01/14 – 09/31/15  
 Biocompatible, Biodegradable Controlled Release Smart Bandages for Regenerating Skin and Healing  
 Infected Wounds  
 Investigation of controlled-release degradable bandages for healing infected wounds.  
 Role: PI \$50,000 (Direct costs)
  
16. 2013-CFG-8008 Loboa (PI) 10/01/13 – 09/31/15  
 NC Biotechnology Center/DOW Chemical  
 Development and Translation of Controlled Release Smart Bandages for Antimicrobial, Antibacterial,  
 and Anti-Inflammatory Wound Healing Applications  
 Role: PI \$120,000 (Direct costs)

17. William R. Kenan Jr. Institute for Engineering, Technology & Science  
Translational Regenerative Medicine Initiative Piedrahita (PI) 08/16/14 – 08/15/15  
Role: Co-PI \$80,000 (Direct costs)
18. NSF Graduate Research Diversity Supplement Loba (PI) 08/15/12 – 08/14/15  
Supplement to NSF/CBET IDR 1133427  
Supplement to current funded NSF grant to broaden participation of underrepresented students in PhD programs in engineering.  
Role: PI \$41,000
19. NIH CTSA 550KR61325 Loba (PI) 07/01/14 – 06/30/15  
Fiber-Reinforced Extracellular Matrix Hydrogels for Skeletal Muscle Regeneration  
Investigation of synthetic polymeric fibrous systems for reinforcement of ECM derived hydrogels to regenerate skeletal muscle  
Role: PI \$50,000 (Direct costs)
20. NWI 11-136 Loba (PI) 05/16/12 – 05/15/15  
Interconnected Micropores in Hollow Nonwoven Fibers  
Creation and scale up of hollow nonwoven fibers with enhanced diffusion capabilities for tissue engineering and regenerative medicine applications.  
Role: PI \$132,000 (Direct costs)
21. NSF CBET-1358349: Conference Support Award Mauck (PI) 12/01/13 – 11/30/14  
2014 Cellular and Molecular Bioengineering (CMBE) Conference  
The major goal of this project is to provide funding for students, trainees, and young faculty to attend and present work at the 2014 BMES Cell and Molecular Bioengineering Conference.  
Role: Co-PI \$15,000 (Direct costs)
22. NIH/NIBIB 1R13 EB0818181 Mauck (PI) 09/30/13 – 08/31/14  
2014 Cellular and Molecular Bioengineering (CMBE) Conference  
The major goal of this project is to provide funding for students, trainees, and young faculty to attend and present work at the 2014 BMES Cell and Molecular Bioengineering Conference.  
Role: Co-PI \$10,000 (Direct costs)
23. CCMTR Translational Research Grant Loba (PI) 07/01/13 – 06/30/14  
Improving Osteochondral Tissue Engineering in a Large Animal Model  
Comparing and optimizing osteochondral tissue engineering in a porcine model using adipose derived stem cells and chondrocytes for improved large animal model investigations of human pathologies.  
Role: PI \$15,000 (Direct costs)
24. Orthopaedic Trauma Association Ostrum (PI) 01/01/13 – 12/31/13  
Human Adipose Derived Stem Cells for Nonunion Bone Regeneration.  
Pilot study funds to investigate novel bone regeneration approaches for nonunion in a murine model.  
Role: Co-PI \$25,000
25. NCRC 10-128 Loba (PI) 08/01/10 – 08/31/13  
Controlled Release Systems using Core-Sheath Nanofibers for Wound Healing and Tissue Engineering Applications  
Development and application of core-sheath technologies for controlled release systems.  
Role: PI \$150,000 (Direct costs)
26. NIH/NIBIB 1R03EB008790 Loba (PI) 02/01/10 – 01/31/13  
Tensile Strain-Induced Osteogenesis of Human Mesenchymal Stem Cells in 3D Culture

- Investigation of tensile strain effects on osteogenesis of human adipose derived adult stem cells in 3D collagen culture.  
Role: PI \$144,226
27. Chancellor's Innovation Fund Loba (PI) 07/01/11 – 01/01/13  
Commercial Development of Hollow, Porous, Nonwoven Fibers as Controlled Release Systems for Wound Healing, Tissue Engineering, and Regenerative Medicine Applications  
Role: PI \$85,000 (Direct costs)
28. NIH/NCRR 10KR51023 Loba (PI) 02/01/10 – 01/31/11  
Controlled AC Electric Fields for Osteogenesis of Human Adipose Derived Stem Cells  
Investigation of the role of physiologic AC electric fields on bone formation by hASCs using custom interdigitated electrodes.  
Role: PI \$10,000 (Direct costs)
29. North Carolina Biotechnology Center MRG Loba (PI) 08/01/07 – 07/31/10  
The Role of Palladin in the Mechanobiology of Human Mesenchymal Stem Cells  
Investigation of the role that cytoskeletal protein palladin plays in mechanotransduction of hMSCs during tensile strain induced osteogenic differentiation of hMSCs.  
Role: PI \$275,000 (Direct costs)
30. UK-US Stem Cell Collaboration Development Award Loba (PI) 12/01/09 – 03/15/10  
Travel funds for visit and presentation at Imperial College, London on Loba lab research and to develop collaboration with Prof. Molly Stevens (Materials Dept., Imperial College) regarding stem cell based approaches to functional bone tissue engineering.  
Role: PI £3860 (~\$6,600) (Direct costs)
31. Nonwovens Cooperative Research Center Loba (PI) 08/15/05 – 08/15/09  
Hollow Fiber Nonwoven Structures with Interconnected Pore Configuration  
Studies to determine means to create hollow fibers with interconnected pores for use in tissue engineering applications.  
Role: PI \$135,000 (Direct costs)
32. Center for Comparative Medicine and Translational Research Loba (PI) 07/01/08 – 06/31/09  
Effects of Electrical Stimulation on Neuronal and Glial Differentiation of Fetal Porcine Neural Stem Cells Seeded in Three-Dimensional Poly-L-Lactic Acid Scaffolds  
Investigation of electrical stimulation to control differentiation of neural stem cells.  
Role: PI \$25,000 (Direct costs)
33. Veterinary Practice Plan, CVM, NCSU Marcellin (PI) 04/01/08 – 03/31/09  
In Vitro Response to TiAl6V4 and EBM made Titanium on Human Adipose Derived Stem Cell Culture  
Determination of titanium processing on viability and proliferation of adipose-derived adult stem cells.  
Role: Co-PI \$15,000 (Direct costs)
34. National Textile Center Gupta (PI) 05/01/05 – 03/31/09  
Electrospun Core-Sheath Fibers for Soft Tissue Engineering  
Project to create and utilize novel bi-axial syringe to electrospin scaffolds for tissue engineering cartilage and other soft tissues.  
Role: Co-I \$318,488
35. Veterinary Practice Plan, CVM, NCSU Marcellin (PI) 01/01/08 – 12/31/08  
In vitro response of human adipose-derived adult stem cells to EBM-made titanium implants  
Analyses of titanium processing on viability and proliferation of adipose-derived adult stem cells.  
Role: Co-PI \$4,000 (Direct costs)
36. UNC-CH/NCSU BME Research Initiation Project Loba (PI) 09/1/07 – 06/30/08

Functional Bone Tissue Engineering via Electrical Stimulation of Adipose-Derived Human Mesenchymal Stem Cells using Conductive, Electrospun, Nanocomposite Scaffolds

Use of electrospun nanocomposite conductive scaffolds (multi-walled carbon nanotubes embedded within PLA fibers) to investigate electrical stimulation of adipose-derived adult stem cells to initiate osteogenesis.

Role: PI \$50,000 (Direct costs)

37. UNC-CH/NCSU BME Research Initiation Project Banes (PI) 09/01/07 – 06/30/08  
Fabrication of a Venous Valve Replacement Device (VVRD)  
Development of device to correct venous valvular insufficiencies.  
Role: Co-I \$50,000 (Direct costs)
38. NCSU Internal Mini Grant – Wood and Paper Science Lucia (PI) 08/01/06 – 07/31/07  
Novel fibrous biomaterial scaffolds for tissue engineering using human adipose-derived adult stem cells  
Investigation of cellulose as potential substrate for tissue engineering with human adipose derived adult stem cells.  
Role: Co-PI \$15,000 (Direct costs)
39. National Institutes of Health Banes (PI) 11/01/05 – 04/31/07  
Bioreactor for Engineered Bioartificial Tissues  
Analysis and revamp of Flexcell TissueTrain system with finite element analysis of new anchor designs.  
Role: Co-PI \$100,000 (*Phase I STTR: Loba academic lead; Banes (Flexcell) industry lead*)
40. NCSU Multi-Disciplinary FRPD Lucia (PI) 03/01/06 – 2/28/07  
Novel Fibrous Biomaterial Scaffolds for Tissue Engineering using Human Adipose-Derived Adult Stem Cells  
Investigation of cellulose as potential substrate for tissue engineering with hASCs.  
Role: Co-PI \$5,333 (Direct costs)
41. Ralph E. Powe Junior Faculty Award Loba (PI) 05/01/05 – 04/30/06  
Tissue Engineering Bone using Osteoporotic Mesenchymal Stem Cells  
Project to promote osteogenesis of mesenchymal stem cells from osteoporotic patients.  
Role: PI \$10,000 (Direct costs)
42. North Carolina Biotechnology Center IDG Loba (PI) 03/01/05 – 02/28/06  
Tissue Mechanics Laboratory for Enhancing Biotechnology in North Carolina  
Equipment and facilities upgrade grant to obtain and install MTS 858 axial torsional test system for Tissue Mechanics Laboratory at NCSU.  
Role: PI \$200,015 (Direct costs)
43. NCSU Multi-Disciplinary FRPD Loba (PI) 03/01/04 – 02/28/05  
Noninvasive Pre-Surgical Planning for Mandibular Reconstruction in a Canine Model using a Computed Tomography-Finite Element Analysis Approach  
Project to arrive at a semi-automated means to convert CT image data into functional finite element models for pre-surgical planning prior to initiating mandibular distraction osteogenesis procedures.  
Role: PI \$20,000 (Direct costs)

### **Granting Agency Reviewer**

Army Research Office, Multidisciplinary University Research Initiative (ARO-MURI), 2014 - 2020

South Carolina EPSCoR/IDeA, 2013 – 2020

National Institutes of Health (NIH) P41 Site Visit Team, 2012 – 2020

American Institute of Biological Sciences, 2011 – 2020

Orthopaedic Research UK (previously Furlong Foundation), 2011 – 2020

National Science Foundation Engineering Research Center (NSF ERC) Site Visit Teams, 2009 – 2020

Pennsylvania Department of Health, 2009 – 2020

National Institutes of Health (NIH), 2008 – 2020  
 New York State Stem Cell Science (NYSTEM) and the Empire State Stem Cell Board, 2008 – 2020  
 Canada Foundation for Innovation, 2006 – 2020  
 National Science Foundation (NSF), 2005 – 2020

### Teaching Experience

PROFESSOR, JOINT DEPARTMENT OF BIOMEDICAL ENGINEERING AT UNC-CHAPEL HILL AND NC STATE UNIVERSITY & MATERIALS SCIENCE & ENGINEERING AT NC STATE UNIVERSITY, RALEIGH, NC

Spr 2015 BME 302 Human Physiology for Engineers II  
 Spr 2015 BME 802/BMME 890 Coulter Seminar Series

ASSOCIATE PROFESSOR, JOINT DEPARTMENT OF BIOMEDICAL ENGINEERING AT UNC-CHAPEL HILL AND NC STATE UNIVERSITY & MATERIALS SCIENCE & ENGINEERING AT NC STATE UNIVERSITY, RALEIGH, NC

Spr 2014 BME 302 Human Physiology for Engineers II  
 Spr 2014 BME 802/BMME 890 Coulter Seminar Series  
 Spr 2013 BME 302 Human Physiology for Engineers II  
 Spr 2012 BME 302 Human Physiology for Engineers II  
 Fall 2011 BME/MSE 790 Mechanobiology of Skeletal Regeneration  
 Spr 2011 BME 302 Human Physiology for Engineers II  
 Spr 2010 BME 302 Human Physiology for Engineers II

ASSISTANT PROFESSOR, JOINT DEPARTMENT OF BIOMEDICAL ENGINEERING AT UNC-CHAPEL HILL AND NC STATE UNIVERSITY, RALEIGH, NC

Spr 2009 BME 302 Human Physiology for Engineers II  
 Spr 2008 BME 302 Human Physiology for Engineers II  
 Spr 2007 BME 302 Human Physiology for Engineers II  
 Spr 2005 BME 302 Human Physiology for Engineers II  
 Spr 2004 BAE382 Biomedical Engineering Applications

GUEST LECTURER, UNC-CHAPEL HILL, CHAPEL HILL, NC

2014 MOPH 864: Nanomedicine  
 2013 MOPH 864: Nanomedicine  
 2012 MOPH 864: Nanomedicine  
 2009 BMME 400: Introduction to Biomedical Engineering  
 2007 Phys 625/Phys 755 Stem Cells and Maturational Lineage Biology Seminar Series  
 2005-2007 BMME 400: Introduction to Biomedical Engineering  
 2006 ABC Fellows, Orthopaedic Grand Rounds, June 10, 2006  
 2005 MTSC 200: Principals of Tissue Engineering  
 2004, 2005 BMME 100: Introduction to Biomedical Engineering  
 2004 BME 251: From Genes to Tissues

GUEST LECTURER, NC STATE UNIVERSITY, RALEIGH, NC

2004 Biomathematics Seminar

ACTING ASSISTANT PROFESSOR, STANFORD UNIVERSITY, STANFORD, CA

2002-2003 ME80 Stress, Strain, and Strength

GUEST LECTURER, STANFORD UNIVERSITY, STANFORD, CA

2002 ME288 Bioengineering & Biodesign Seminar  
 2001 ME281 Orthopaedic and Cardiovascular Bioengineering and Medicine

## Students and Post-Doctoral Fellows Supervised

### Previous Master's Students – Chair

1. 2004-07 *Ariel Hanson*, M.S., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
2. 2005-06 *Seth McCullen*, M.S., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
3. 2007-9 *Adisri Charoenpanich*, M.S., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
4. 2006-9 *Skylar Marvel*, M.S., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
5. 2010-12 *John Williams*, M.S., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
6. 2010-14 *Pattie Mathieu*, MS, Joint Dept. of Biomedical Eng., UNC-CH/NCSU

### Previous Master's Students – Co-Chair

1. 2005-7 *Jillian Rouse*, M.S., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
2. 2007-10 *Magaly Ramirez*, M.S., Forest Biomaterials, NCSU

### Previous Ph.D. Students – Chair

1. 2003-6 *Ruwan Sumanasinghe*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
2. 2004-9 *T. Wayne Pfeiler*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
3. 2005-9 *Carla Haslauer*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
4. 2005-9 *Seth McCullen*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
5. 2009-13 *Adisri Charoenpanich*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
6. 2010-13 *Mahsa Mohiti-Asli*, Ph.D., Textile Eng., NCSU
7. 2008-14 *Josephine Bodle*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
8. 2009-16 *Christopher O'Connor*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
9. 2011-16 *Stephen Tuin*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
10. 2013-17 *Rachel Nordberg*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
11. 2013-18 *Shaobo Cai*, Ph.D., Materials Science & Eng., NCSU

### Previous Ph.D. Students – Co-Chair

1. 2002-5 *Gwanseob Shin*, Ph.D., Industrial Eng., NCSU
2. 2004-8 *Nilesh Ingle*, Ph.D., Fiber & Polymer Science, College of Textiles, NCSU and Joint Dept. of Biomed. Eng., UNC-CH/NCSU
3. 2006-10 *Meghan Samberg*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU
4. 2007-11 *Oswaldo Lazoya*, Ph.D., Joint Dept. of Biomedical Eng., UNC-CH/NCSU

### Post-doctoral Research Fellows Supervised

1. 2004-6 *Michelle Wall*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
2. 2008-9 *Xiaodong Cao*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU and Forest Biomaterials, NCSU
3. 2009-10 *Carla Haslauer*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
4. 2013-16 *Liliana Mellor*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
5. 2013-16 *Mahsa Mohiti-Asli*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
6. 2013-15 *Sonya Sonnenberg*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
7. 2014-16 *Andrew Steward*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
8. 2015-16 *Josephine Bodle*, Ph.D., Postdoctoral Fellow, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
9. 2017-18 *Rachel Nordberg*, Ph.D., Postdoctoral Fellow, College of Engineering, UM-Columbia
10. 2019 *Rasoul Seyedmahmoud*, Ph.D., Postdoctoral Fellow, College of Engineering, UM-Columbia

### Doctoral and Master's Committee Memberships

1. 2003-7 *Ray Yao*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
2. 2003-7 *Ann Marie Fox*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
3. 2005-9 *Ajit Moghe*, Ph.D. Candidate, Fiber and Polymer Science, NCSU



4. 2005-9 *Avanika Mahajan*, Ph.D. Candidate, Animal Science, NCSU
5. 2005-9 *Richard Shoge*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
6. 2006-10 *Ben Moody*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
7. 2006-10 *Jessica Springer*, Ph.D. Candidate, Dept. of Industrial Eng., NCSU
8. 2006-10 *Russ Behler*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
9. 2006-11 *Brandon Conover*, Ph.D. Candidate, Dept. of Electrical and Computer Eng., NCSU
10. 2007-11 *Rachael Turner*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
11. 2007-11 *Fatih Canbolat*, Ph.D. Candidate, Fiber and Polymer Science, NCSU
12. 2008-9 *Maria Ina*, M.S. Candidate, Textile Eng., NCSU
13. 2008-10 *Aaron Richardson*, M.S. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
14. 2008-12 *Mallory Scola*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
15. 2008-13 *Joao Ferreira*, Ph.D. Candidate, Dental School, UNC-Chapel Hill
16. 2009-14 *Shoeb Ahmed*, Ph.D. Candidate, Chemical and Biomolecular Eng., NCSU
17. 2009-14 *Ben Roberston*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
18. 2009-14 *Jacob Thomas*, M.S. Candidate, Dept. of Physiology, NCSU
19. 2009-14 *Bruce Wiggan*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
20. 2010-14 *Saurabh Bakshi*, M.S. Candidate, Dept. of Mechanical Eng., NCSU
21. 2010-15 *Ariel Hanson*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
22. 2012-15 *Avinav Nandgaonkar*, Ph.D. Candidate, Fiber and Polymer Science, NCSU
23. 2012-15 *Robert Soto*, Ph.D. Candidate, Chemistry, UNC-Chapel Hill
24. 2012-16 *Astor Liu*, Ph.D. Candidate, Chemical & Biomolecular Eng., NCSU
25. 2012-17 *Asad Ahmad*, Ph.D. Candidate, Joint Dept. of Biomedical Eng., UNC-CH/NCSU
26. 2015-16 *Michael Collier*, Ph.D. Candidate, Pharmaceutical Sciences, UNC-Chapel Hill
27. 2013-18 *Rahim Jindani*, Ph.D. Candidate, Fiber & Polymer Science & Biomedical Eng., NCSU

#### Undergraduates Supervised in Laboratory Research

1. 2003-6 *Carolyn Yeago*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
2. 2004-5 *Ethan Azargoon*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
3. 2004-5 *Stephanie Coates*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
4. 2004-5 *Penney Martin*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
5. 2004-5 *Amanda Walls*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
6. 2004-5 *Sarah Brumbaugh*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
7. 2004-6 *Katherine Dulaney*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
8. 2004-7 *Jennifer Jassawalla*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
9. 2004-7 *Tabitha Staniszewski*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
10. 2004-7 *Eric Rush*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
11. 2004-7 *Neil Shah*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
12. 2004-7 *Jillian Rouse*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
13. 2004-8 *Allison Finger*, HHMI SRI intern and Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
14. 2005-7 *Catherine Ward*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
15. 2006-8 *Ben Shillinglaw*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
16. 2006-8 *Meghan Vidt*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
17. 2006-7 *Weldon Whitener*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
18. 2006-9 *Jennifer Puetzer*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
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49. 2012-15 *Taylor Cook*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
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51. 2013-14 *Samuela Fernandes*, Candidate for B.S., Dept. of Biology, NC State Univ.
52. 2014-16 *Michael Taylor*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
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55. 2014-15 *Devin Orndorff*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
56. 2014-15 *Christian Pedersen*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.
57. 2015-16 *Brady Trevisan*, Candidate for B.S., Dept. of Biomedical Eng., NC State Univ.

### **Service to the Profession: Professional Society Memberships**

American Institute for Medical and Biological Engineering, 2015 – present  
 American Association for the Advancement of Science, 2015 – present  
 London Regenerative Medicine Network, 2010 – present  
 Tissue Engineering and Regenerative Medicine International Society, 2010 – present  
 Society for Physical Regulation in Biology and Medicine, 2007 – present  
 Biomedical Engineering Society, 2004 – present  
 Orthopaedic Research Society, 2004 – present  
 American Society of Mechanical Engineers, 2004 – present  
 Sigma Xi Scientific Research Society, 2004 – present  
 American Society for Engineering Education, 2003 – present  
 Association for Women in Science, 2002 – present

### **Service to the Profession: Journal Reviewer**

1. *Acta Biomaterialia*
2. *Advanced Biomaterials*
3. *Annals of Biomedical Engineering*
4. *Biomacromolecules*
5. *Biomaterials*
6. *Biomechanics and Modeling in Mechanobiology*
7. *Biomedical Materials*
8. *Biophysical Reviews*
9. *BioResources*
10. *BioTechniques*
11. *Biotechnology and Bioengineering*
12. *BMC Biotechnology*
13. *Bone*
14. *Cartilage*
15. *Cells, Tissues, Organs*
16. *Cellulose*
17. *Journal of Biomaterials Science – Polymer Edition*
18. *Computer Methods in Biomechanics and Biomedical Engineering*
19. *Journal of Biomechanical Engineering*
20. *Journal of Biomechanics*
21. *Journal of Biomedical Materials Research, Part A*
22. *Journal of Biomedical Materials Research, Part B*
23. *Journal of Bone and Joint Surgery*
24. *Journal of Bone and Mineral Research*
25. *Journal of Cellular Biochemistry*
26. *Journal of Dental Research*
27. *Journal of Materials Research*
28. *Journal of Orthopaedic Research*
29. *Journal of Tissue Engineering and Regenerative Medicine*
30. *Medical and Biological Engineering and Computing*
31. *Nature Materials*
32. *PLoS One*
33. *PNAS*
34. *Stem Cells*
35. *Stem Cell Reports*
36. *Stem Cell Research & Therapy*
37. *The Open Orthopaedic Journal*
38. *Tissue Engineering*

**References Available Upon Request**