## MICHAEL JEROME YASZEMSKI, M.D., PH.D.

September 2018

### PERSONAL INFORMATION

Specialty: Orthopedic Surgery

Chemical Engineering

Medical Secretary: Mrs. Linda S. Simonson: (507) 266-5262

Research Administrative

Assistant: Mrs. Shelly R. Gochnauer: (507) 284-2267

Mayo Histomorphometry

Core Lab Supervisor: Mr. James L. Herrrick, MSA: (507) 538-4300

**Research Operations** 

Coordinator: Ms. Suzanne L. Glass, MBA: (507) 202-6050

### **CURRENT POSITION**

- 1. John and Posy Krehbiel Endowed Professor of Orthopedic Surgery and Biomedical Engineering, Mayo Clinic College of Medicine
- 2. Director, Tissue Engineering and Biomaterials Research Laboratory.
- 3. Director, Mayo Clinic Core cGLP (Current Good Laboratory Practice) and cGMP (current Good Manufacturing Practice) Histomorphometry and Biomaterials Characterization/Fabrication Laboratory
- 4. Deputy Director for Affiliations, Mayo Clinic Center for Regenerative Medicine

# **EDUCATION**

- 1. Lehigh University, Bethlehem, PA; Major: Chemical Engineering, Bachelor of Science with High Honors, May 29, 1977
- 2. Lehigh University, Bethlehem, PA; Major: Chemical Engineering, Master of Science with High Honors. Thesis: The Preparation and Characterization of a Vinyl Acetate- Diallylamine Copolymer Latex to be used as an Immunological Reagent. Thesis Advisors: Leonard A. Wenzel, Ph.D., Mohamed S. El-Aasser, Ph.D., Gary Poehlein, Ph.D., and John Vanderhoff, Ph.D., October 8, 1978
- 3. Georgetown University School of Medicine, Washington, DC, Doctor of Medicine, May 28, 1983
- 4. Massachusetts Institute of Technology, Cambridge, MA; Major: Chemical Engineering, Doctor of Philosophy. Thesis: A Temporary Replacement for Trabecular Bone: The Design, Synthesis, and Evaluation of a Novel Degradable Polymeric Biomaterial. Thesis Advisor: Robert Langer, Sc.D. Thesis Committee Members: Wilson C. (Toby) Hayes, Ph.D., Augustus A. White III, M.D., Ph.D., Edward W. Merrill, Ph.D., and Myron Spector, Ph.D., June 9, 1995
- 5. Wilford Hall U.S. Air Force Medical Center, Lackland Air Force Base, San Antonio, TX; Intern, General Surgery, July 1, 1983 June 30, 1984

- 6. Wilford Hall U.S. Air Force Medical Center, Lackland Air Force Base, San Antonio, TX; Resident, Orthopaedic Surgery, July 1, 1985 June 30, 1989
- 7. Department of Orthopaedic Surgery and Orthopaedic Biomechanics Laboratory, Beth Israel Hospital, Harvard Medical School, Boston, MA; Clinical Fellow, Spine Surgery; Director: Augustus A. White, III, M.D., Ph.D.; Research Fellow, Orthopaedic Biomechanics; Director: Wilson C. Hayes, Ph.D., July 1, 1989 June 30, 1991

### **BOARD CERTIFICATIONS**

- 1. Certification (Engineering): Passed Engineer-in-Training Examination, May 1977
- 2. Certification: National Board of Medical Examiners, Certificate #283535, July 2, 1984
- 3. Certification: Diplomat of American Board of Orthopaedic Surgery, July 9, 1993 through December 31, 2003
- 4. Re-certification: American Board of Orthopaedic Surgery, January 1, 2004 through December 31, 2013
- 5. Re-certification: American Board of Orthopaedic Surgery, January 1, 2014 through December 31, 2023

# **MEDICAL LICENSURE**

- 1. New Jersey Medical License #47112, effective November 15, 1985, inactive as of 1989.
- 2. Massachusetts Medical License #60564, Serial #1012654, effective November 16, 1988; inactive as December 13, 1993
- 3. Maine Medical License #013130, effective June 27, 1991, inactive as of December 31, 1997.
- 4. Arkansas Medical License # N-8329, effective December 11, 1992, inactive as of March 1, 1996
- 5. Texas Medical License #J5522, effective March 4, 1994, inactive as of March 1, 1997.
- 6. North Carolina Medical License #95-00778, effective May 20, 1995, inactive as of December 31, 1996
- 7. Minnesota Medical License #39283, effective September 14, 1996, expiration: December 31, 2016
- 8. Florida Medical License AC#4346246 (ME-0072258), effective January 14, 1997, expiration: January 31, 2017

# **HONORS & AWARDS**

### To Dr. Yaszemski:

- 1. Tau Beta Pi, National Engineering Honor Society, elected December 3, 1975
- 2. Lehigh University Class of 1906 Scholar-Athlete Award 1975
- 3. Lehigh University Male Student Leadership Award, Football, 1976
- 4. National Collegiate Athletic Association Postgraduate Scholarship Award, 1977
- 5. Lehigh University Beta Theta Pi Cup, Outstanding Scholar-Athlete, 1977
- 6. National Football Foundation and Hall of Fame Scholar-Athlete Award, 1977
- 7. Lehigh University Football Team:
  - a. Starting Offensive Tackle, 1975 and 1976 seasons

- b. Unsung Hero Trophy, 1976
- c. N.C.A.A. Division II Quarterfinalist Team 1975
- d. Lambert Cup 1975, Top Eastern Division II Team
- e. Graduate Assistant Coach, N.C.A.A. Division I-AA National Championship Team, 1977
- 8. Vice-President, Delta Upsilon Fraternity, 1975
- 9. Outstanding Young Men of America, elected 1980
- 10. American Medical Association Physician Recognition Award.:
  - a. April 1, 1985 April 1, 1988
  - b. September 1, 1988 June 30, 1991
  - c. July 1, 1991 June 30, 1994
  - d. July 1, 1994 June 30, 1997
  - e. July 1, 1997 June 30, 2000
  - f. July 1, 2000 June 30, 2003
  - g. July 1, 2003 June 30, 2006
- 11. First Alternate, American Orthopaedic Association John J. Fahey North American Traveling Fellowship, 1990
- 12. West's Who's Who in Health and Medicine, elected 1990
- 13. Sigma Xi, Scientific Research Honor Society, M.I.T. Chapter, elected April 1991; transferred to Mayo Chapter 1997
- 14. Norman T. Kirk Award, Best Scientific Paper, 34th Annual Meeting of the Society of Military Orthopaedic Surgeons, December, 1992
- 15. Eugene J. Nordby Research Award, Best Presentation at the Annual Meeting of the International Intradiscal Therapy Society, Aberdeen, Scotland, May 24, 1994
- 16. Massachusetts Institute of Technology, Department of Chemical Engineering, Outstanding Seminar in Chemical Engineering for Spring 1994 term.
- 17. Marquis' Who's Who in Science and Engineering, 1995
- 18. Herschel M. Rich Invention Award for Outstanding Patent, Rice University, April 22, 1995: Poly (Propylene Fumarate-co-Ethylene Oxide)
- 19. Surgeon General's Award, Best Orthopaedic Scientific Presentation, Society of Air Force Clinical Surgeons 42nd Annual Meeting, April 1995
- 20. Honorable Mention Poster Award, Fourteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 16, 1996
- 21. Hershel M. Rich Invention Award for Outstanding Patent, Rice University, Laura Suggs, Richard Payne, Michael J. Yaszemski, Antonios Mikos: Poly (Propylene Fumarate-Co-Ethylene Oxide) A Novel Biodegradable Copolymer System for Use in Vascular Surgery Applications, 1997
- 22. Norman T. Kirk Award for Best Scientific Paper, 39<sup>th</sup> Annual Meeting of the Society of Military Orthopaedic Surgeons. Palmer C, Murray P, Snearly W, Yaszemski M: The Mechanism of Ulnar-Sided Peri-Lunar Instability of the Wrist. Lake Placid, NY, October 8, 1997
- 23. 1998 Austrian, Swiss, German (ASG) Exchange Traveling Fellow of the American Orthopaedic Association (AOA)
- 24. First Place, The Roy Davis Scientific Paper Competition. Palmer C, Murray P, Snearly W, Yaszemski M: The Mechanism of Ulnar-Sided Perilunar Instability of the Wrist.

- Department of Orthopaedic Surgery, University of Texas Health Science Center at San Antonio, May 8, 1998
- 25. Marquis' Who's Who in the World, 1999
- 26. Best Residents and Fellows Paper. Palmer C, Murray P, Snearly W, Yaszemski M: The Mechanism of Ulnar-Sided Perilunar Instability of the Wrist. The Annual Meeting of the American Association for Surgery of the Hand, Waikoloa, HI, January 16, 1999
- 27. Fellow, American Institute of Medical and Biological Engineering, Elected to Class of 2000
- 28. Hershel M. Rich Invention Award for Outstanding Patent, Rice University, Peter SJ, Yaszemski MJ, and Mikos AG: Bone Replacement Compound Comprising Poly(Propylene Fumarate), 2000
- 29. First prize for the session of Case Reports-Pain, Midwest Anesthesia Residents Conference (MARC), Omaha, NE, for the presentation: Ghaleb AH, Brower MC, Wong GY, Huntoon MA, Ross, SR, and Yaszemski MJ: Quadratus Femoris Muscle Injection for Chronic Left Hip/Buttock Pain, March 8-10, 2002
- 30. Congress of Neurological Surgeons Best Research in Spinal Cord Injury Award at the 2003 Annual Meeting, for the presentation: Friedmann JA, Lewellyn EB, Moore MJ, Schermerhorn TC, Knight AM, Currier BL, Yaszemski MJ, Ameenuddin S, and Windebank AJ: Robust Axon Regeneration following Surgical Repair of the Injured Spinal Cord with a Novel Biodegradable Polymer Implant
- 31. Medical Imaging 2004 Symposium, Honorable Mention Poster Award for the poster: Rajagopalan S, Yaszemski MJ, and Robb R: Evaluation of thresholding techniques for segmenting scaffold images in tissue engineering. Medical Imaging 2004, Symposium of the International Society for Optical Engineering, San Diego, CA, February 18, 2004
- 32. Mayo Clinic College of Medicine Clinician Investigator, effective September 16, 2004
- 33. American Society for Testing and Materials (ASTM) 2005 Joseph Barr Award for contributions to the development of medical device and material standards, May 19, 2005
- 34. President, Minnesota Orthopaedic Society, 2006-2007 and 2007-2008
- 35. Mayo Clinic's Award for Excellence, Excellence in Leadership Award, December 19, 2007
- 36. Mayo School of Continuing Medical Education: Course Director of the Year Award, 2<sup>nd</sup> Annual Mayo Clinic International Spine Symposium, Kona, Hawaii, January 2007
- 37. American Academy of Orthopaedic Surgeons Kappa Delta Elizabeth Winston Lanier Award, Feb. 25, 2009
- 38. Consumer's Research Council of America's Guide to America's Top Orthopedists, 2009 Edition
- 39. Society for Biomaterials 2010 Clemson Award for Applied Research
- 40. American Academy of Orthopaedic Surgeons' Achievement Award Recipient 2010, American Academy of Orthopaedic Surgeons' Annual Meeting, March 10-23, 2010, New Orleans, LA
- 41. Recipient of the John and Posy Krehbiel Endowed Professorship in Orthopedics Honoring Bernard F. Morrey, M.D., Mayo Clinic, Rochester, MN, August 11, 2011
- 42. American Academy of Orthopaedic Surgeons 2013 William W. Tipton, Jr. Leadership Award, 2013 Annual AAOS Meeting, Chicago, IL, March 19-23, 2013
- 43. President, Mayo Clinic Staff, 2013-2014

- 44. American Society for Testing and Materials (ASTM) 2014 Leroy Wyman Award to an engineer for contributions to the development of medical device and material standards, May, 2014
- 45. Fellow, National Academy of Inventors, elected to Class of 2015
- 46. National Academy of Medicine (NAM), 2016
- 47. President, Mayo Foundation Chapter of Sigma Xi, March 2018-2019

### To Mentees of Dr. Yaszemski:

- 1. Thesis Committee member to recipient, 1997 Ph.D. Student Award for Outstanding Research of the Society for Biomaterials, Awarded to Susan Lynn Ishaug-Riley for the manuscript Ishaug-Riley SL, Crane GM, Gurlek A, Miller MJ, Yasko AW, Yaszemski MJ, Mikos AG: Ectopic Bone Formation by Marrow Stromal Osteoblast Transplantation Using Poly (DL-Lactic-Co-Glycolic Acid) Foams Implanted into the Rat Mesentery
- 2. Thesis Committee member to recipient, Ralph Budd Award, Rice University, for best engineering Ph.D. thesis, Susan Lynn Ishaug-Riley: Bone Formation by Three-Dimensional Osteoblast Culture in Biodegradable Poly (α-Hydroxy Ester) Scaffolds, 1997
- 3. Research Committee member to recipient, James S. Waters Award for undergraduate creativity, Daniel J. Kim: Fabrication and Evaluation of a Biodegradable Composite Material for Orthopaedic Applications, Rice University, 1997
- 4. Thesis Committee member to recipient, (R. G. Payne): 1999 Annual Chemical Engineering Department Graduate Research Poster Contest, Rice University, Houston, TX: Payne RG, Sivaram SA, Babensee JE, Yasko AW, Yaszemski MJ, and Mikos AG: Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres
- 5. Faculty advisor to recipient, D.H.R. Kempen, Society for Biomaterials Student Travel & Professional Development Award, 2002
- 6. Thesis committee member to recipient, Ralph Budd Award, Rice University, for best engineering Ph.D. thesis, Richard G. Payne: Development of an Injectable, *In Situ* Crosslinkable, Degradable Polymeric Carrier for Osteogenic Populations, 2002
- 7. Thesis advisor to recipient, Society for Biomaterials Graduate Student Travel Award to 2003 Annual Meeting, Michael J. Moore, May, 2003
- 8. Faculty advisor to recipient, Distinguished Student Poster Award, for the poster: Kempen DHR, Kim CW, Lu L, Dhert WJA, Currier BL, and Yaszemski MJ: Controlled release from poly(lactic-co-glycolic acid) microspheres embedded in an injectable, biodegradable scaffold for bone tissue engineering. International Conference on Processing & Manufacturing of Advanced Materials, Thermec Conference, Madrid, Spain, 2003
- 9. Faculty advisor to recipient, Society for Biomaterials Graduate Student Travel Award to 2003 Annual Meeting, Heather M. Argadine, May, 2003
- 10. Ph.D. Thesis advisor to recipient, NIH National Research Service Award, National Institute of Neurological Disorders and Stroke, 1 F31 NS045544-01, Integrative Tissue Engineering in the Spinal Cord, Michael J. Moore, June, 2003
- 11. Ph.D. Thesis Co-Principal Advisor (with Wouter Dhert, Ph.D.) to recipient, Diederik Kempen, 1<sup>st</sup> Place awardee of AGIKO grant for Ph.D. thesis project on bone tissue engineering, granted by the Netherlands government, 2005

- 12. Ph.D. Thesis Co-Principal Advisor to recipient, Society for Biomaterials 2005 Annual Meeting, Honorable Mention Student Professional Award, to Srinivasan Rajagopalan for the podium presentation: Rajagopalan S, Lu L, Robb R, and Yaszemski M
- 13. Thesis Co-Principal Advisor to recipient, Dr. Srinivasan Rajagopalan, Society for Medical Image Processing and Computer Assisted Intervention's student award, new applications category, for the Schwarz meets Schwann: Design and fabrication of biomorphic tissue engineering scaffolds, 2005
- 14. Master of Science thesis advisor to recipient, Dr. Rapin Phimosarnti, M.D., American Orthopaedic Association's C. Howard Hatcher Pathology Fellowship Award, 2006
- 15. Postdoctoral fellowship advisor to Brett Runge, Ph.D., recipient of postdoctoral award from National Institute of Arthritis and Musculoskeletal and Skin Diseases' 1T32AR056950 training grant, May 2009
- 16. Faculty advisor to recipient, Matthias Plumberger, Northeast Bioengineering Conference, Student Travel Award, Boston, MA. 2009
- 17. Postdoctoral fellowship advisor to Brett Runge, M.D., recipient of the National Institutes of Health (NIH) Clinical Loan Repayment Program (LRP), approved for funding by the National Institute of Neurological Disorders and Stroke (NINDS), July 2009-July 2011
- 18. Faculty advisor to recipient, Biomedical Engineering Society Graduate Student Travel Award, Zen Liu, Biomedical Engineering Society Annual Meeting, Pittsburgh, PA, October 9, 2009
- 19. Faculty advisor to recipient, Matthias Plumberger, Wilhelm Auerswald Prize 2011 for the Best Medical Doctoral Thesis of Austria
- 20. Ph.D Thesis Co-Principal Advisor (Promotoren) to recipient, Dr. Diederik Hendrik Ruth Kempen, Bone Regeneration Based on Growth Factor Releasing Polymer Composites, Thesis Awarded with Honors, Utrecht, The Netherlands, October 26, 2011
- 21. Master of Science Thesis advisor to recipient, Dalibel Bravo, Young Investigator Award, Musculoskeletal Tumor Society Annual Meeting, October 3-5, 2013, San Francisco, CA
- 22. Master of Science Thesis advisor to recipient, Catalina Vallejo, Royal Academy of Medicine Ireland (RAMI) Donegan Medal, Biomedical Sciences Annual Meeting, University College of Dublin, Ireland. June 19, 2014
- 23. Faculty advisor to recipient, Arjun Sebastian, M.D., for the Cervical Spine Research Society (CSRS) third place Resident/Fellow Research Award Paper, "Risk factors for Surgical Site Infection after Posterior Cervical Spine Surgery: Analysis from the ACS-NSQIP 2005-2012" with co-supervisors and authors Nassr A, Huddleston PM, Habermann E, Wagie A, and Kakar S, given at the CSRS 2014 Annual Meeting, Orlando, FL, Dec 4-6, 2014

# **MILITARY SERVICE**

- 1. United States Air Force, Ready Reserve, August 18, 1979 June 12, 1983
  - a. Date of Rank to 2<sup>nd</sup> Lieutenant: August 18, 1979
  - b. Date of Rank to Captain: December 23, 1981
- 2. United States Air Force, Active Duty, June 13, 1983 June 15, 1996
  - a. Date of Rank to Major: December 23, 1987
  - b. Date of Rank to Lieutenant Colonel: December 23, 1993
- 3. United States Air Force, Ready Reserve, September 15, 1996 February 7, 2013

- a. Date of Rank to Colonel: April 1, 1998
- b. Date of Rank to Brigadier General, February 7, 2008
- 4. Co-Chair, Representing USAF Surgeon General, US Central Command Commanders' Conference, Doha, Qatar, May 4-7, 2009
- 5. Retirement as Brigadier General, United States Air Force, February 7, 2013
  - a. Retirement Ceremony December 20, 2013, Uniformed Services University of the Health Sciences, Walter Reed National Military Medical Center, Bethesda, MD
  - b. Master of Ceremonies: Theodore W. Parsons III, Colonel (Ret.), USAF
  - c. U.S. Flag (Old Glory) Officer: Andrew J. Yaszemski, Captain, USAF
  - d. Distinguished Retirement Officer: Lieutenant General (Ret.) Paul K. Carlton, Jr., USAF, 16<sup>th</sup> United States Air Force Surgeon General

# MILITARY HONORS, AWARDS AND DECORATIONS

- 1. Air Force Training Ribbon, June, 1983
- 2. Air Force Achievement Medal, July 1, 1985
- 3. Air Force Outstanding Unit Award, Jan.-December 1987; Oak Leaf Cluster, Jan.-Dec. 1988
- 4. Air Force Commendation Medal, March 30, 1989
- 5. Outstanding Graduate, Air Command and Staff College, Air University, Maxwell AFB, AL, January 4, 1989
- 6. National Defense Service Medal, March 1991
- 7. Air Force Longevity Ribbon, July 1987; Oak Leaf Cluster, July 1991
- 8. Air Force Meritorious Service Medal, June 17, 1996; First Oak Leaf Cluster, May 10, 2001; Second Oak Leaf Cluster, April 27, 2006; Third Oak Leaf Cluster, April 25, 2007
- 9. Air Force Reserve Brigadier General Qualification Board, selected November 2002 and November 2004
- 10. Global War on Terror Service Medal, June 10, 2005
- 11. Iraq Campaign Medal, September 15, 2006.
- 12. Operation Iraqi Freedom Expeditionary Ribbon with Gold Border (Combat Zone Service), September 15, 2006
- 13. United States Air Force, Deputy Commander, 332<sup>nd</sup> Expeditionary Medical Group, Air Force Theater Hospital, Balad Air Base, Iraq, July 15 September 15, 2006
- 14. Air Force Meritorious Unit Award, Air Force Theater Hospital, Balad Air Base, Iraq, January 2007
- 15. United States Air Force, Mobilization Assistant (90GO) to the Command Surgeon, Office of the Command Surgeon, Air Mobility Command and U.S. Transportation Command, Scott AFB, IL, December 1, 2004 September 30, 2005
- 16. United States Air Force, Mobilization Assistant (90GO) to the Command Surgeon, Office of the Command Surgeon, Air Mobility Command, Scott AFB, IL, October 1, 2005 January 8, 2009
- 17. Legion of Merit Medal, February 2011
- 18. Medallo Militar de Fe en la Causa, Army of the Republic of Colombia, presented by the Commander-in-Chief of the Colombian Army, Bogota, Columbia, 2011

- Mobilization Assistant to the Air Force Assistant Surgeon General for Health Care Operations, Bolling Air Force Base and Pentagon, Washington, DC, January 9, 2009-April 2010
- 20. Mobilization Assistant to the Deputy Surgeon General of the Air Force, Bolling Air Force Base and Pentagon, Washington, DC, April 2010- November 30, 2011
- 21. Reserve Advisor to the President of the Uniformed University of Health Sciences, Bethesda, MD, December 1, 2011- February 7, 2013
- 22. Joint Meritorious Service Medal, December 2013

# PREVIOUS PROFESSIONAL POSITIONS AND APPOINTMENTS

- 1. G.A.F. Corporation, G.A.F. Research Center, Wayne, NJ, Research Engineer, Latex Polymers Group. Responsibility: Polymer synthesis in laboratory glassware and subsequent scale-up to 1 gallon and 5 gallon pilot plant reactors. Supervisor of pilot plant operations, October 1978 August 1979
- 2. Flight Medicine Office, USAF Clinic Kelly, Kelly AFB, TX, Title: Chief, Flight Medicine, September 10, 1984 June 16, 1985
- 3. Hyperbaric Medicine Diving Team Member, Brooks AFB, TX, July 1985 May 1989; September 1991 June 15, 1996
- 4. Staff Orthopaedic Surgeon, Department of Orthopaedic Surgery, Beth Israel Hospital, Boston, MA, July 1, 1989 June 30, 1990
- 5. Air Force Institute of Technology, Wright-Patterson AFB, OH; Location: Orthopaedic Biomechanics Laboratory, Department of Orthopaedic Surgery, Beth Israel Hospital/Harvard Medical School, Boston, MA, and Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA. Responsibility: Research Fellow, Orthopaedic Biomechanics; Clinical Fellow, Spine Surgery; Doctoral Candidate, Chemical Engineering; July 1, 1989 June 30, 1991
- 6. Senior Research Fellow and Charter Member, Board of Advisors, Northeastern University Center for Biotechnology Engineering, Boston, MA, March 6, 1990-2000.
- 7. Instructor in Orthopaedic Surgery, Beth Israel Hospital/Harvard Medical School Boston, MA, July 1, 1990 June 30, 1991
- 8. Adjunct Professor of Chemical Engineering, Department of Chemical Engineering, Northeastern University, Boston, MA, September, 1990 June, 1996
- 9. Department of Orthopaedic Surgery, Wilford Hall Medical Center, Lackland AFB, San Antonio, TX. Responsibility: Staff Orthopaedic Surgeon, Director of Orthopaedic Research, Chief of Hyperbaric Medicine, July 1, 1991 June 15, 1996
- 10. Assistant Professor of Surgery, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, June 23, 1992 November 5, 1995
- 11. Adjunct Assistant Professor of Chemical Engineering, Rice University, Houston, TX, July 1, 1994 November 4, 1996
- 12. Clinical Assistant Professor of Orthopaedics, University of Texas Health Science Center at San Antonio, San Antonio, TX, August 1, 1994 June 15, 1996
- 13. Associate Professor of Surgery, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, November 6, 1995 2013

- 14. Adjunct Associate Professor of Chemical Engineering, Rice University, Houston, TX, November 5, 1996 September 30, 2004
- 15. Assistant Professor of Orthopedic Surgery, Mayo Medical School, Rochester, MN, October 1, 1996 June 30, 1997
- 16. Associate Professor of Orthopedic Surgery, Mayo Medical School, Rochester, MN, July 1, 1997 December 31, 1997
- 17. Associate Professor of Orthopedic Surgery and Biomedical Engineering, Mayo Clinic College of Medicine, Rochester, MN, January 1, 1998 September 30, 2004
- 18. Senior Associate Consultant, Department of Orthopedic Surgery, Mayo Clinic, June 16, 1996 June 16, 1999
- 19. Consultant, Department of Orthopedic Surgery, Mayo Clinic, June 17, 1999 present
- 20. United States Air Force Ready Reserve, Individual Mobilization Augmentee, Wilford Hall Medical Center, Lackland Air Force Base, TX, September 1996 January 2000
- 21. United States Air Force Ready Reserve, Individual Mobilization Augmentee, Office of the Surgeon General, Bolling AFB, Washington, D.C., January 2000 July 2003
- 22. United States Air Force, Surgeon General's Tactical Action Team, Office of the Surgeon General, Bolling AFB, Washington, D.C., January 2000 July 2003
- 23. United States Air Force, Individual Mobilization Augmentee to the Deputy Command Surgeon, Office of the Command Surgeon, Air Mobility Command, Scott AFB, IL, August 2003 June 2004
- 24. United States Air Force, Individual Mobilization Augmentee to the Command Surgeon, Office of the Command Surgeon, Air Mobility Command, Scott AFB, IL, July 1, 2004 November 30, 2004
- 25. Professor of Orthopedic Surgery and Biomedical Engineering, Mayo Clinic College of Medicine, Rochester, MN, October 1, 2004-2011. (I received the John and Posy Krehbiel Endowed Professorship in Orthopedic Surgery and Biomedical Engineering, Honoring Bernard F. Morrey, M.D., Mayo Clinic, Rochester, MN, August 11, 2011)
- 26. Adjunct Professor of Bioengineering, Rice University, Houston, TX, October 1, 2004 present
- 27. United States Air Force, Mobilization Assistant (90GO) to the Command Surgeon, Office of the Command Surgeon, Air Mobility Command and U.S. Transportation Command, Scott AFB, IL, December 1, 2004 September 30, 2005
- 28. United States Air Force, Mobilization Assistant (90GO) to the Command Surgeon, Office of the Command Surgeon, Air Mobility Command, Scott AFB, IL, October 1, 2005 January 8, 2009
- 29. United States Air Force, Deputy Commander, 332<sup>nd</sup> Expeditionary Medical Group, Air Force Theater Hospital, Balad Air Base, Iraq, July 15-September 15, 2006
- 30. Mobilization Assistant to the Assistant Surgeon General for Health Care Operations, Washington, DC, Bolling Air Force Base and Pentagon, Washington, DC, January 9, 2009-April, 2010
- 31. Mobilization Assistant to the Deputy Surgeon General of the Air Force, Washington, DC, Bolling Air Force Base and Pentagon, Washington, DC, April 2010-November 30, 2011
- 32. Mobilization Assistant and Reserve Military Advisor to the President, Uniformed Services University of the Health Sciences, Walter Reed National Military Medical Center, Bethesda, MD, December 1, 2011-February 7, 2013

33. Professor of Surgery, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, July 30, 2013-present

## PROFESSIONAL MEMBERSHIPS AND SOCIETIES

- 1. American Institute of Chemical Engineers, 1977-present, Member #059105
- 2. Society of Military Orthopaedic Surgeons, 1985-present
- 3. Society of Air Force Clinical Surgeons, 1986-1996
- 4. American Academy of Orthopaedic Surgeons, Member, 1986-present; elected Fellow February 21, 1995
- 5. Sigma Xi, 1991-present
- 6. Society for Biomaterials, 1992-present
- 7. Bexar County (Texas) Medical Society, 1994-1996
- 8. Texas Medical Association, 1994-1996
- 9. American Society for Testing and Materials, 1994-present
- 10. American Chemical Society, 1994-present
- 11. Materials Research Society, 1994-1995, 2001
- 12. Orthopaedic Research Society, 1995-present
- 13. North American Spine Society, 1996-2003
- 14. Clinical Orthopaedic Society, 1996-2000
- 15. Academic Orthopaedic Society, 1994-2000
- 16. Minnesota Medical Society, 1996-present
- 17. Minnesota Orthopaedic Society, 1996-present
- 18. American Orthopaedic Association, 1997-present
- 19. Scoliosis Research Society, Candidate Member, 1997-2002; Fellow, 2002-present
- 20. Interurban Orthopaedic Society, 1997-present
- 21. Association of Air Force Reserve Flight Surgeons, 1998-present
- 22. J. R. Gladden Orthopaedic Society, 2002-present
- 23. Musculoskeletal Tumor Society, 2004-present
- 24. Mid-America Orthopaedic Association, 2008-present
- 25. International Skeletal Society, 2008-present
- 26. American Society for Bone and Mineral Research 2000-present
- 27. Association of Governing Boards of Universities and Colleges, 2011-present
- 28. Member, Reserve Officers Association, 2005-present
- 29. Life Member (#204755572), The American Legion, 2014
- 30. American Medical Association, 1981-89; 2013-present

# EDUCATIONAL ACTIVITIES

- 1. Health Professions Officer Indoctrination Course, Air University, Maxwell AFB, AL, June 5 July 5, 1979
- 2. School of Aerospace Medicine Introductory Course: Survival Training & Aerospace Physiology, School of Aerospace Medicine, Brooks AFB, TX, June 15 July 15, 1980
- 3. Aerospace Medicine Primary Course, School of Aerospace Medicine, Brooks AFB, TX, July 15 August 29, 1984

- 4. Armed Forces Combat Casualty Care Course and Advanced Trauma Life Support Certification, Academy of Health Sciences, Brooke Army Medical Center, Fort Sam Houston, TX, September 21-29, 1984
- 5. Hyperbaric Chamber Training Course, Hyperbaric Medicine Division, School of Aerospace Medicine, Brooks AFB, TX, March 11-15, 1985
- 6. Orthopaedic Pathology Course, Armed Forces Institute of Pathology, Walter Reed Army Medical Center, Washington, DC, September 21 October 31, 1986
- 7. Squadron Officer School, Extension Course Institute (Correspondence), Air University, Maxwell AFB, AL, January 1, 1985 November 21, 1986
- 8. Air Command and Staff College, Extension Course Institute (Correspondence), Air University, Maxwell AFB, AL, January 1, 1987-January 4, 1989
- 9. Instron 1330 Series Materials Testing Machine Operator Course, Instron Corporation, Canton, MA, June 4-8, 1990
- 10. AO/ASIF Fellowship, Spine Surgery and Orthopaedic Trauma, Prof. F. Magerl, Kantonsspital, St. Gallen, Switzerland, April 29 May 31, 1991
- 11. Instron 1120 Series Materials Testing Machine Operator Course, Instron Corporation, Canton, MA, July 29 August 1, 1991
- 12. Air War College, Extension Course Institute (Correspondence), Air University, Maxwell AFB, AL, October 15, 1995 April 23, 1997
- 13. American Orthopaedic Association Kellogg Business School Leadership Course, Module 1, Northwestern University, Evanston, IL, November 18-20, 2005; Module 3, June, 2008
- 14. Expeditionary Medical Support (EMEDS) Commander Course, Sheppard Air Force Base, TX, April 17-21, 2006
- 15. Expeditionary Combat Skills Course, Scott Air Force Base, IL, July 5-7, 2006.
- 16. Advanced Burn Life Support (ABLS) Training, American Burn Association, November 2011-November 2017

# INSTITUTIONAL, PROFESSIONAL SOCIETY, GOVERNMENTAL, AND COMMUNITY ADMINISTRATIVE, COMMITTEE, SERVICE AND LEADERSHIP ACTIVITIES

### **Institutional Activities:**

- 1. Director, Hyperbaric Medicine, Wilford Hall USAF Medical Center, Department of Surgery, Lackland AFB, TX, 1993-1996
- 2. Director, Orthopedic Research, Wilford Hall USAF Medical Center, Department of Orthopedic Surgery, Lackland AFB, TX, 1991-1996
- 3. Member, Research Committee, Department of Orthopedic Surgery, Mayo Clinic, 1996present
- 4. Alumni Advisor to Undergraduates, Massachusetts Institute of Technology, 1997present
- 5. Information Security Subcommittee of Mayo Medical Center Rochester Information Technology Committee, 1999-2002
- 6. Information Security Subcommittee of Mayo Foundation Information Infrastructure Policy Committee, 1999-2002

- 7. Member, Education Committee, Department of Orthopedic Surgery, Mayo Clinic, 1999-2008
- 8. Director, Basic Science Curriculum and Master of Science Program in Orthopedic Surgery, Orthopedic Surgery Residency Program, Mayo Clinic, 1999-2001
- 9. Member, Institutional Animal Care and Use Committee, Mayo Foundation, January 1999-December 2001; Acting Chair, January, 2000; November, 2000; October, 2001
- 10. Member, Institutional Review Board, Mayo Foundation, 2000-2003
- 11. Member, Surgical Facilities Subcommittee, Mayo Foundation, 2002-2013
- 12. Vice Chair, Research Committee, Department of Orthopedic Surgery, Mayo Clinic, 2004-2005
- 13. Vice-Chair, Research Executive Committee, Department of Orthopedic Surgery, Mayo Clinic, 2004-2005
- 14. Co-Chair, Orthopedic Research Review Committee, March 2004-2005
- 15. Member, Mayo Rochester Research Finance Subcommittee, 2004-2007
- 16. Member, Mayo Clinic College of Medicine M.D.-Ph.D. Committee, 2005-present
- 17. Chair, External Review Committee, Center for Nanoscale Biomaterials and Biosensors (CNBB), University of Alabama at Birmingham (UAB), 2005-2007
- 18. Member, Mayo Clinic Cancer Center, August 10, 2006-present
- 19. Member, Conflict of Interest Review Board, Mayo Foundation, 2006-2008
- 20. Chair, Conflict of Interest Review Board, Mayo Foundation, 2008-2017
- 21. Member, Mayo Clinic Career and Leadership Development Committee, July 2008-2010
- 22. Member, Mayo Medical-Industry Relations Committee, 2009-present
- 23. Member, Mayo Medical-Industry Relations Executive Subcommittee, 2009-present
- 24. Co-chair, Medical-Industry Relations Committee, 2009-2017
- 25. Member, Mayo Clinic Center for Translational Science Activities (CTSA) Faculty, 2008-present
- 26. Member, Research Executive Committee, Department of Orthopedic Surgery, Mayo Clinic, January 2009 January 31, 2012
- 27. Member, Spine Implant Committee, Department of Orthopedic Surgery, Mayo Clinic, January 2009-present
- 28. Chair, Division of Spine Surgery, Department of Orthopedic Surgery, Mayo Clinic, November 14, 2002 January 31, 2012
- 29. Member, Research Ventures Subcommittee, Mayo Clinic, 2011-2015
- 30. Member, Mayo Internal Study Section, NIH K12 Award (Dr. Jatoi, P.I.), December 2012
- 31. Member, Mayo Mentoring Faculty, Translational Research in Regenerative Medicine: Postdoctoral Training without Borders, NIH-funded Postdoctoral Training Program, July 2012-2015
- 32. Deputy Director for Affiliations, Mayo Clinic Center for Regenerative Medicine, 2012 present
- 33. President-Elect, Mayo Clinic Staff, 2012-2013
- 34. President, Mayo Clinic Staff, 2013-2014
- 35. Past President, Mayo Clinic Staff, 2014-2015
- 36. Co-director Mayo Foundation Clinical Trials Oversight Group, 2014-present

### **Professional Society Activities:**

- 1. Member, Grant Peer Review Committee, Orthopaedic Research and Education Foundation (OREF), Rosemont, IL, 1997-2001
- 2. Member, *ex officio*, Austria-Switzerland-Germany (ASG) Exchange Fellowship Subcommittee, International Traveling Fellowships Committee, American Orthopaedic Association, 1999
- 3. Adjunct Reviewer, Program Committee, Orthopaedic Research Society, 1999 & 2002
- 4. Consultant, Biologic Implants Committee, American Academy of Orthopaedic Surgeons, 1999-2000
- 5. Ad hoc Reviewer, Whitaker Foundation Bioengineering Grant Program, 1999 & 2002
- 6. Member, Research Coordinating Committee, Scoliosis Research Society, 1999 & 2002
- 7. Member, Board of Directors, Minnesota Orthopaedic Society, 2000-2014
- 8. Member, Austria-Switzerland-Germany (ASG) Exchange Fellowship Subcommittee, International Traveling Fellowships Committee, American Orthopaedic Association, 2000-2002
- 9. Member, Shands Lectureship Committee, American Orthopaedic Association, 2000-2002
- 10. Member, Biologic Implants Committee, American Academy of Orthopaedic Surgeons, 2001-2004
- 11. Air Force Reserve Representative, Society of Military Orthopaedic Surgeons, 2001 2015
- 12. Member, Board of Directors, Society of Military Orthopaedic Surgeons, 2001-2015: Prepared application on behalf of Society of Military Orthopaedic Surgeons (SOMOS) to the Council of Musculoskeletal Specialty Societies (COMSS) of the American Academy of Orthopaedic Surgeons requesting representation of SOMOS on the Council, July 2003 SOMOS became a member society of COMSS in October 2003
- 13. Member, American Academy of Orthopaedic Surgeons Committee on Evaluation, Subcommittee on Anatomy-Imaging Evaluation, February 2002 February 2008
- 14. Chair, Research Coordinating Committee, Scoliosis Research Society, 2002
- 15. Member, Orthopaedic Research Society/American Orthopaedic Association Shands Lecture for Research Selection Committee, 2002-2003
- 16. Chair, Austria-Switzerland-Germany (ASG) Exchange Fellowship Subcommittee, International Traveling Fellowships Committee, American Orthopaedic Association, 2002-2005
- 17. Member, Research Task Force, Scoliosis Research Society, 2002-2007
- 18. Member, American Academy of Orthopaedic Surgeons Device Forum, representing the American Orthopaedic Association, 2002-2005
- 19. Member, American Academy of Orthopaedic Surgeons Committee on Evaluation, Subcommittee on Adult Spine, 2003-2009
- 20. Co-Chair, Orthopaedic Research Society/American Orthopaedic Association Shands Lecture for Research Selection Committee, 2003-2005
- 21. Member (representing the Scoliosis Research Society), Research Committee, United States Bone and Joint Decade, 2003-2006
- 22. Chair, Research Grants Review Committee, Scoliosis Research Society, 2003 2004
- 23. Secretary, Minnesota Orthopaedic Society, 2003-2005
- 24. Delegate to Minnesota Medical Society, representing Minnesota Orthopaedic Society, September 18-19, 2003

- 25. Member, Fellowship Coordination Committee, American Orthopaedic Association, 2003-2006
- 26. Member, American Society for Testing & Materials (ASTM), Committee F04: Medical Devices, 2001-2012
- 27. Co-Chair, American Society for Testing and Materials (ASTM) Task Force on Standardization of Characterization Methods for Polymeric Tissue Engineering Scaffolds, 2003-2005
- 28. Vice-Chair, American Society of Testing and Materials (ASTM), Committee F.04, Medical Devices, Users Division, 2004-2012
- 29. Chair, Research Council, Scoliosis Research Society, 2004-2007
- 30. Member, Long Range Planning Committee, Society for Biomaterials, 2004-2006
- 31. President-elect, Minnesota Orthopaedic Society, 2005-2006
- 32. Co-Chair, American Academy of Orthopaedic Surgeons Device Forum, 2005-2006
- 33. Member, Program Committee, 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, March 19-22, 2006
- 34. President, Minnesota Orthopaedic Society, 2006-2007 and 2007-2008
- 35. Member, Program Committee, Scoliosis Research Society, 2007-2008
- 36. Co-Chair, Program Committee, Scoliosis Research Society, 2009-2010
- 37. Member, BMUS Task Force, Scoliosis Research Society, 2007-2008
- 38. Chair, American Academy of Orthopaedic Surgeons Device Forum, 2007-2012
- 39. Member, Board of Councilors, American Academy of Orthopaedic Surgeons, 2008-2014
- 40. Member, Program Committee, Orthopaedic Research Society, March 2008 March 2009
- 41. Member, Program Committee, The New Jersey Center for Biomaterials' 9<sup>th</sup> Symposium Biomaterials Science and Regenerative Medicine, News Brunswick, NJ, October 29-31, 2008
- 42. Member, Finance Committee, American Society for Testing and Materials (ASTM) Committee F.04: Medical Devices, 2008-2012
- 43. Member, Editorial Advisory Board, Orthopaedic Research Society, Journal of Orthopaedic Surgery, 2009-2011
- 44. Member, American Academy of Orthopaedic Surgeons Annual Meeting Committee (representing the Board of Councilors), 2009-2010
- 45. Member, American Association of Medical Colleges' Task Force on Conflicts of Interest in Clinical Practice; Best Interest of Patients Committee, 2009-2011
- 46. Member, American Academy of Orthopaedic Surgeons (AAOS) Committee on Outside Interests, 2009-2015
- 47. Member, Awards and Scholarship Committee, Scoliosis Research Society, 2009-2010
- 48. Member, Program Committee, Scoliosis Research Society, 2010-2011
- 49. Member-at-Large, Board of Directors, Orthopaedic Research Society, 2011-2013
- 50. Chair, Spine Clinical Research Advisory Committee, Orthopaedic Research and Education Foundation, 2010-2011
- 51. Member, Board of Trustees, Finance Committee, Lehigh University, Bethlehem, PA, 2011-2017
- 52. Member-at-Large, Board of Directors, Orthopaedic Research Society Finance Committee, 2011-2013
- 53. Member, American Orthopaedic Association (AOA) Leadership Development Committee, 2012-present

- 54. Annual Meeting New Member Ambassador, American Academy of Orthopaedic Surgeons, 2013-2015
- 55. Reviewer, Journal of the American Academy of Orthopaedic Surgeons, 2014
- 56. Member, Clinical Research Committee, Orthopaedic Research Society, 2014-2018
- 57. Member, Annual Meeting Program Committee, Orthopaedic Research Society, 2015-2017
- 58. Managing Director, Interurban Orthopaedic Society, 2018-present
- 59. President, Sigma Xi, Scientific Research Honor Society, Mayo Chapter, 2018-2019

### **Governmental Activities:**

- Consultant to the Orthopedic and Rehabilitation Devices Panel, Center for Devices and Radiological Health, U.S. Food and Drug Administration, Rockville, MD, April 1997 -July 1997
- 2. Member, Orthopedic and Rehabilitation Devices Panel, Center for Devices and Radiological Health (CDRH), Food and Drug Administration, July 1997 October 2000
- 3. Member (ad hoc), NIH Surgery and Bioengineering Study Section Member, Bethesda, MD, October 19-20, 1998
- 4. Acting Chair, Orthopedic and Rehabilitation Devices Panel, Center for Devices and Radiological Health (CDRH), Food and Drug Administration, November 4, 1999
- 5. Member (ad hoc), NIH SBIR Tissue Engineering Study Section (SSS-M-03), November 16, 1999
- 6. Member (ad hoc), NIH Small Business Innovative Research (SBIR) and Small Business Technology Transfer Research (STTR) Study Section; Muscular, Skeletal & Dental Initial Review Group (MSD IRG, SSS5-5), Division of Physiological Systems, Bethesda, MD, April 6, 1999, July 29-30, 1999, December 5-6, 1999
- 7. Alternate Member, FY00 Air Force Reserve Colonel Promotion Selection Board, 1999
- 8. Consultant for Orthopedic Surgery to the Air Force Reserve Command Surgeon General, United States Air Force, December 28, 1999 March 31, 2002
- 9. Member, NIH Bioengineering Research Partnership Special Study Section (SSS-M-02), March 22-23, 2000; November 16-17, 2000; July 10, 2001, July 9, 2003
- 10. Member, NIH Tissue Engineering Special Emphasis Panel Study Section, (SSM-M-03), March 24, 2000; July 9, 2001; July 10, 2002
- 11. Chair, Orthopedic and Rehabilitation Devices Panel, Center for Devices and Radiological Health, Food and Drug Administration, October, 2000 August, 2005
- 12. Member, NIH Bioengineering Research Grant Special Study Section (SSS-M-01), March 22, 2000; November 16, 2000; July 11, 2001; July 8, 2002; November 17, 2003
- 13. Member, NIH P41 Special Study Section site visit, National Core Center Program, April 8-9, 2001 (site visit), June 16-17, 2002, (reverse site visit)
- 14. Chair, NIH Tissue Engineering Study Section, SSS-M-01, March 22, 2002, August 6-8, 2003
- 15. Chair, NIH Bioengineering Research Partnership Tissue Engineering Study Section, SSS-M-52, November 18-19, 2003; March 17, 2004
- 16. Chair, NIH MOSS G: Musculoskeletal, Oral, and Skin Sciences Study Section, July 12-14, 2004 (SSS-M-52 became a permanent study section, including a name change, with this meeting)

Curriculum Vitae

- 17. Chair, NIH Musculoskeletal Tissue Engineering (MTE) Study Section (MOSS G was renamed MTE on Oct 12, 2004), Oct 12, 2004 June 30, 2007
- 18. Chair, NIH Special Emphasis Panel, RFA DE-05-005, National Institute of Dental and Craniofacial Research, November 4, 2004
- 19. Member, External Advisory Committee, NIH P41 EB02520: Tissue Engineering Resource Center; Co-PI's: David Kaplan, PhD, Tufts University and Gordana Vunjak-Novakovic, PhD, M.I.T., August 15, 2004 December 31, 2005
- 20. Member (ad hoc), FDA General and Plastic Surgery Devices Panel Meeting, Gaithersburg, MD, August 25-26, 2005
- 21. Member (ad hoc), FDA Orthopaedic Devices Panel Meeting, Gaithersburg, MD, September 8-9, 2005
- 22. Member, Critical Care Air Transport Team (CCATT) Workgroup, U.S. Air Force Center for the Sustainment of Trauma and Readiness Skills (C-STARS), University of Cincinnati, Cincinnati, OH, October 2-6, 2005
- 23. Member, National Institute of Arthritis, Musculoskeletal, and Skin Diseases (NIAMS) Cartilage Repair P01 Scientific Review Panel, NIH, Bethesda, MD, Dec.6, 2005
- 24. Chair, External Advisory Committee, NIH P41 EB02520: Tissue Engineering Resource Center; Co-PI's: David Kaplan, PhD, Tufts University and Gordana Vunjak-Novakovic, PhD, M.I.T., January 1, 2006 present (currently in 12<sup>th</sup> year)
- 25. Member, Department of Veterans Affairs Rehabilitation Research and Development Service Scientific Merit Review Board Meeting, Washington, DC, February 27-28, 2006
- 26. Member, National Institute of Arthritis, Musculoskeletal, and Skin Diseases (NIAMS) Roundtable Discussion Group on Musculoskeletal Development and Regeneration, NIH, Bethesda, MD, March 10, 2006
- 27. Member, NIH Special Emphasis Panel, Musculoskeletal Tissue Engineering ZRG1 MOSS-L (03), June 16, 2008
- 28. Chair, Skeletal Biology Development and Disease (NIH MOSS-B 03) Study Section, March 5, 2009
- 29. Chair, NIH Special Emphasis Panel/Scientific Review Group 2009/05 ZRG1 MOSS-L (03), March 26, 2009
- 30. Member, FDA Neurologic Devices Advisory Panel, May 14, 2009, Washington DC, May 14, 2009
- 31. Chair, NIH Special Emphasis Panel/Scientific Review Group 2009/08 ZAR1 KM-D(M1) Loan Repayment Program, April 30, 2009
- 32. Co-chair, Integration Panel, Peer Reviewed Orthopaedic Research Program (PRORP), Congressionally Directed Medical Research Program (CDMRP), Department of Defense, 2009-2010
- 33. Chair, NIH Special Emphasis Panel, Challenge Grants Panel 21 (ZRG1 MOSS-C-58-R), Translational and Clinical Sciences, Washington DC, July 20-21, 2009
- 34. Chair, Department of Defense External Advisory Board to the Center for Advanced Bioengineering for Soldier Survivability; Barbara Boyan, Ph.D, Principal Investigator, Georgia Institute of Technology, Atlanta, GA, 2009-2015
- 35. Member, NIH National Advisory Council for Biomedical Imaging and Bioengineering September 2010 August 2014

- 36. Chair, External Advisory Board Annual Retreat, Georgia Tech Center for Advanced Bioengineering for Soldier Survivability, Georgia Institute of Technology, Atlanta, GA December 2, 2010
- 37. Delivered the Oath of Office during the Commissioning Ceremony for Dr. Kendall Lee as Commander in the U.S. Naval Reserve, October 26, 2011
- 38. Member, U.S. Food and Drug Administration (FDA) Science Board, March 20, 2014 December 31, 2019
- 39. Chair, FDA Science Board Subcommittee: Commissioner's Fellowship Program Evaluation Subcommittee, 1 Aug 2014 31 July 2015
- 40. Member, Clinical Translational Advisory Board, Armed Forces Institute of Regenerative Medicine (AFIRM), 2015-present
- 41. Consultant, Orthopedic and Rehabilitation Devices Panel, Center for Devices and Radiological Health (CDRH), Food and Drug Administration, July 1997 August 2021
- 42. Panel Member, Ballistics Science and Engineering at the Army Research Laboratory, The National Academy of Science, Engineering, Medicine, February 15, 2017-present
- 43. Member, NIH National Institute of Arthritis, Musculoskeletal and Skin Diseases Advisory Council, 2016-2020

### **Community Activities:**

- 1. Eucharistic Minister, Our Lady of Guadalupe Catholic Church, Helotes, TX, 1992-1996
- 2. Eucharistic Minister, Church of St. John and Holy Spirit Catholic Church, Rochester, MN, 1996-present
- 3. Fourth Degree Member, Knights of Columbus, Council #11460 (member #3409618), Holy Spirit Catholic Church, Rochester, MN, 1997-2005
- 4. Assistant Scoutmaster, Boy Scout Troop 98, Rochester, MN, 2001-2005
- 5. Counselor, Medicine Merit Badge, Boy Scout Troop 98, Rochester, MN, 2001-2010
- 6. Fourth Degree Exemplification (Rochester, MN Bishop Fitzgerald Assembly #548), Knights of Columbus, Brainerd, MN, April 16, 2005

# **EDITORIAL SERVICE**

### Journals:

- 1. Co-editor, Journal of Biomaterials in Practice, 1996-2000
- 2. Member, Editorial Board, Regenerative Medicine, 1999-2001
- 3. Member, Editorial Board, Tissue Engineering, 2001-2015
- 4. Member, International Editorial Board, Biomaterials, 2002-2008
- 5. Member, Editorial Board, Journal of the American Academy of Orthopaedic Surgeons, 2003-2013
- 6. Guest Editor, with Lichun Lu, Ph.D., Special Issue of the Journal Biomaterials: Biomaterials for Spinal Applications, Vol. 27 Issue 3, January 2006
- 7. Assistant Editor, Journal of Biomedical Materials Research, Part A, 2004-2005
- 8. Associate Editor, Journal of Biomedical Materials Research, Part A, January 1, 2005 present

- 9. Editorial Board, Journal of Orthopaedic Surgery, February 2012-2017
- 10. Clinical Committee of the Editorial Board, Tissue Engineering-Parts A, B, and C, January, 2012-present
- 11. Deputy Editor, Techniques in Orthopaedics, 2015-2017

### **Books:**

- 1. Wise DL, Trantolo DJ, Altobelli DE, Yaszemski MJ, Gresser JD, and Schwartz ER, editors: Encyclopedic Handbook of Biomaterials & Bioengineering: Part A: Materials-Volume 1. Marcel Dekker, NY, ISBN-13: 978-0824795931; ISBN-10: 0824795938, 1995
- 2. Leong K, Yaszemski M, Tamada J, Radomsky M, and Mikos A, editors: Polymers in Medicine and Pharmacy, Symposium Proceedings. Vol. 394, Materials Research Society, Pittsburgh, ISBN 1-5589-9297-9, 1995
- 3. Wise DL, Trantolo DJ, Altobelli DE, Yaszemski MJ, and Gresser JD, editors: Human Biomaterials Applications. Humana Press, ISBN 0-89603-337-6, 1996
- Wise DL, Brannon-Peppas L, Klibanov AM, Langer RS, Mikos AG, Peppas NA, Trantolo DJ, Wnek GE, and Yaszemski MJ, editors: Handbook of Pharmaceutical Controlled Release Technology. Marcel Dekker, Inc, New York, NY, ISBN 0-8247-0369-3, 2000
- 5. Wise DL, Trantolo DL, Lewandrowski KU, Gresser JD, Cattaneo MV, and Yaszemski MJ, editors: Biomaterials Engineering and Devices: Human Applications. Humana Press, Totowa, NJ, ISBN 0-89603-858-0, 2000
- Wise DL, Trantolo DL, Lewandrowski KU, Gresser JD, Cattaneo MV, and Yaszemski MJ, editors: Biomaterials and Bioengineering Handbook. CRC Press; ISBN-10: 0-82470-318-9, ISBN-13: 978-0824703189, 30 March 2000
- 7. Yaszemski MJ, Managing Editor: EMedicine Orthopaedic Surgery Reference (Online). 2001-2003
- 8. Yaszemski MJ, Spine Surgery Section editor: Yearbook of Orthopaedic Surgery, Mosby, 2001-2007
- 9. Lewandrowski KU, Wise DL, Trantolo DL, Gresser JD, Yaszemski MJ, and Altobelli DE, editors: Tissue Engineering and Biodegradable Equivalents: Scientific and Clinical Applications. Marcel Dekker, New York, NY, ISBN 0-8247-0755-9, 2002
- Yaszemski MJ, Trantolo DJ, Lewandrowski KU, Hasirci V, Altobelli DE, and Wise DW, editors: Tissue Engineering and Novel Delivery Systems. Marcel Dekker, New York, NY, ISBN 0-8247-4786-0, 2004
- 11. Yaszemski MJ, Trantolo DJ, Lewandrowski KU, Hasirci V, Altobelli DE, and Wise DW, editors: Biomaterials in Orthopedics. Marcel Dekker, New York, NY, ISBN 0-8247-4294-X, 2004
- 12. Lewandrowski KU, Wise DL, Trantolo DJ, Yaszemski MJ, and White III AA, editors: Advances in Spinal Fusion: Molecular Science, Biomechanics, and Clinical Management. Marcel Dekker, New York, NY, ISBN 0-8247-4310-5, 2004
- 13. Lewandrowski KU, Yaszemski MJ, Kalfas IH, Park P, McLain RF, and Trantolo DJ, editors: Spinal Reconstruction: Clinical Examples of Applied Basic Science, Biomechanics, and Engineering. Informa Healthcare, New York, NY, ISBN 10: 0-8493-9815-0, 2007

14. Yaszemski MJ, Zhang W, Cheng S: 100+ Years of Plastics. Leo Baekeland and Beyond, Polymeric Biomaterials: A History of Use in Musculoskeletal Regenerative and Reconstructive Medicine. American Chemical Society Symposium Series, Vol. 1080, Strom ET & Rasmussen SC, editors Chapter 11, pp. 165-182, American Chemical Society, publisher. DOI: 10.1021/bk-2011-1080.pr001; ISBN13:978084122677, eISBN: 9780841226784, November 4, 2011

### COURSES ORGANIZED OR MODERATED

- 1. Southern Orthopaedic Association Residents and Fellows Conference, San Antonio, TX, Moderator, Basic Science/Pathology Section, November 2, 1987
- 2. Society of Military Orthopaedic Surgeons, 34<sup>th</sup> Annual Meeting, Colorado Springs, CO, Moderator, Spine Surgery Section, December 2, 1992
- 3. Faculty, First Annual Texas Total Joint Roundup, Hip and Knee Arthroplasty Course, San Antonio, TX, April 8-9, 1994
- 4. Materials Research Society, Symposium Organizer and Session Chair for 1995 Annual Meeting, San Francisco, CA: Symposium Z, Polymers in Medicine and Pharmacy, April 17, 1995
- 5. Society of Air Force Clinical Surgeons 1995 Annual Meeting, Moderator, Adult Reconstruction Session, Dayton, OH, April 25, 1995
- 6. Society of Air Force Clinical Surgeons 1995 Annual Meeting, Moderator, Basic Science Session, Dayton, OH, April 26, 1995
- 7. American Institute of Chemical Engineers, 1995 Bioengineering Conference, Cellular and Tissue Engineering Session Co-Chair, Beaver Creek, CO, June 28 July 2, 1995
- 8. Society of Military Orthopaedic Surgeons, 37<sup>th</sup> Annual Meeting, Vail, CO, Moderator, Research and Basic Science Session, December 6, 1995
- 9. Society of Air Force Clinical Surgeons 1996 Annual Meeting, Moderator, Basic Science Session, Dayton, OH, April 4, 1996
- 10. Moderator, Clinical Evaluation. Management of Low Back Pain and Sciatica in the Era of Managed Care, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, October 17-19, 1996
- 11. Session Chair, Orthopedic Biomaterials, American Institute of Chemical Engineers Topical Conference on Biomaterials, Carriers for Drug Delivery and Scaffolds for Tissue Engineering, Los Angeles, CA, November 19, 1997
- 12. Director, Basic Science Curriculum and Master of Science Program in Orthopedic Surgery, Orthopedic Surgery Residency Program, Mayo Clinic, 1999-2001
- 13. Course Director, Mayo Graduate School Core Course BME6750, Concepts in Biomedical Engineering, 1999-2004
- 14. Session Chair, Spine Treatment, Orthopaedic Research Society 1999 Annual Meeting, Anaheim, CA, February 4, 1999
- 15. Moderator, Spine Session, Mayo Clinic Orthopedic Alumni Meeting, Rochester, MN, October 16, 1999
- 16. Course Director, Mayo Graduate School Core Course BME6750, Concepts in Biomedical Engineering, 1999 present
- 17. Organizer, Orthopaedic Tissue Engineering, Washington, DC, January 23-25, 2000
- 18. Faculty, AO/ASIF Comprehensive Spine Course, Breckenridge, CO, March 10-12, 2000

- 19. Session Chair, Spine, Orthopaedic Research Society/American Academy of Orthopaedic Surgeons Combined Session, 2000 Annual Meeting, Orlando, FL, March 16, 2000
- 20. Session Chair, New Test Methods: *in vitro*, *in vivo*, and *ex-vivo*. World Biomaterials Congress, Kamuela, HI, May 19, 2000
- 21. Moderator, Graduating Residents Presentations, Mark B. Coventry Graduation Symposium, Rochester MN, June 3, 2000; June 2, 2001
- 22. Moderator, Spine Session, American Academy of Orthopaedic Surgeons 2001 Annual Meeting, San Francisco, CA, February 28, 2001
- Moderator, Session II: Spine Tumors, Sacral Tumors, Desmoid Tumors, and Founder's Lecture, Musculoskeletal Tumor Society 2001 Annual Meeting, Baltimore, MD, May 11, 2001
- 24. Faculty, AO/ASIF Comprehensive Spine Course, Marco Island FL, Sept. 7-9, 2001.
- 25. Moderator, Musculoskeletal Tumor Session, Society of Military Orthopaedic Surgeons 43<sup>rd</sup> Annual Meeting, December 14, 2001
- 26. Moderator, Spine Session (#47), Orthopaedic Research Society Annual Meeting, Dallas, TX, February 13, 2002
- 27. Course Director, Mayo Graduate School Course BME5000, Introduction to Biomedical Engineering, 2002-2004
- 28. Moderator, Spine Session, American Orthopaedic Association/Canadian Orthopaedic Association First Joint Annual Meeting, Victoria, British Columbia, Canada, June 1, 2002
- 29. Moderator, Spine Session, Minnesota Orthopaedic Society, 19<sup>th</sup> Annual Meeting, Minneapolis, MN, May 16, 2003
- 30. Moderator, Basic Science Session, Society of Military Orthopaedic Surgeons 45<sup>th</sup> Annual Meeting, Honolulu, HI, December 18, 2003
- 31. Moderator, Tissue Engineering Session, American Academy of Orthopaedic Surgeons 2004 Research Symposium: Influence of Sex Specificity and Gender on Musculoskeletal Health, Hunt Valley, MD, April 25, 2004
- 32. Moderator and Organizer, Austria-Switzerland-Germany Fellowship Session, Southern German Orthopaedic Society 52<sup>nd</sup> Annual Meeting (52. Jahrestagung der Vereinigung Süddeutscher Orthopäden e.V.), Baden-Baden, Germany, May 1, 2004
- 33. Session Chair, Biomaterials and Biomechanics, Strategies in Tissue Engineering Kongress, Würzburg, Germany, June 18, 2004
- 34. Meeting co-organizer and local host, 99<sup>th</sup> meeting of the Interurban Orthopaedic Society, Mayo Clinic College of Medicine, Rochester, MN, October 6-9, 2005
- 35. Course co-director, with Bradford Currier, M.D., Mayo Clinic College of Medicine Inaugural International Spine and Tumor Symposium, Kauai, HI, January 16-26, 2006
- 36. Moderator, Spine Session, American Academy of Orthopaedic Surgeons 2006 Annual Meeting, Chicago, IL, March 22, 2006
- 37. Moderator, Introduction of New Technologies: New Surgical Techniques Session, 11<sup>th</sup> Phillip Zorab Scoliosis Symposium, Christ Church College, Oxford University, Oxford, United Kingdom, April 4, 2006
- 38. Moderator and Organizer, Austria-Switzerland-Germany Fellowship Session, Southern German Orthopaedic Society 54<sup>th</sup> Annual Meeting (54. Jahrestagung der Vereinigung Süddeutscher Orthopäden eV), Baden-Baden, Germany, April 29, 2006

- 39. Course co-director with Bradford Currier, M.D., Mayo Clinic College of Medicine 2<sup>nd</sup> International Spine Symposium, Big Island, HI, January 21-25, 2007
- 40. Course co-director with Bradford Currier, M.D., Mayo Clinic College of Medicine 3<sup>rd</sup> International Spine Symposium, Kauai, HI, January 27-31, 2008
- 41. Moderator, Mayo Clinic College of Medicine 3<sup>rd</sup> International Spine Symposium, Session V: Pediatric Tumors and Other Anomalies, Kauai, HI, January 28, 2008
- 42. Moderator, Mayo Clinic College of Medicine 3<sup>rd</sup> International Spine Symposium, Session X: Cervical and Cervico-Thoracic Deformities, Kauai, HI, January 30, 2008
- 43. Panel Discussant, Mayo Clinic College of Medicine 3<sup>rd</sup> International Spine Symposium, Session XIII, Flatback Deformity: Technical Pearls for Posterior Vertebral Osteotomy, Kauai, HI, January 31, 2008
- 44. Roundtable Discussant, Mayo Clinic College of Medicine 3<sup>rd</sup> International Spine Symposium, Pedicle Subtraction Osteotomy/Lumbosacral Tumor Resection and Reconstruction, Kauai, HI, January 31, 2008
- 45. Moderator, Mayo Clinic College of Medicine 3<sup>rd</sup> International Spine Symposium, Session X: Cervical and Cervico-Thoracic Deformities, Kauai, HI, January 30, 2008
- 46. Course co-director, Forum on Conflict of Interest (FOCI), Mayo Clinic, Rochester, MN, September 14-16, 2008
- 47. Session Chair, Regenerative Challenges in Treating Acute Trauma, The New Jersey Center for Biomaterials' 9<sup>th</sup> Symposium Biomaterials Science and Regenerative Medicine, News Brunswick, NJ, October 29, 2008
- 48. Session Chair, Disruptive Technologies for Treating Compartment and Brain Injuries, The New Jersey Center for Biomaterials' 9<sup>th</sup> Symposium Biomaterials Science and Regenerative Medicine, News Brunswick, NJ, October 31, 2008
- 49. Panel Discussant, Armed Forces Institute of Regenerative Medicine (AFIRM), Session 6, Development of Clinical Trials Infrastructure for Treatment of Bone Defects, Nerve Defects, Craniofacial Injury Status, AFIRM-Wide Models and Next Steps, Saint Petersburg Beach, FL, January 14, 2009
- 50. Moderator, American Academy of Orthopaedic Surgeons (AAOS)/Orthopaedic Trauma Association (OTA)/Society of Military Orthopaedic Surgeons (SOMOS) Extremity War Injuries IV (EWI IV) Research Symposium, Session VB: NGO Care of Host Nation Civilian Casualties, EWI IV Breakout Session II: Host National Care, Opportunities for U.S. Civilian Involvement within Host Nation Medical Facilities, Washington, D.C., January 23, 2009
- 51. Course co-director with Bradford Currier, M.D., Mayo Clinic College of Medicine 4<sup>th</sup> International Spine Symposium, Kapalua, Maui, HI, February 2-7, 2009
- 52. Moderator, Mayo Clinic College of Medicine 4<sup>th</sup> International Spine Symposium, Translational Research, Kapalua, Maui, HI, February 3, 2009
- 53. Moderators, Yaszemski MJ: American Academy of Orthopaedic Surgeons (AAOS) 2009 Annual Meeting, Scientific Program Symposium, Off-label Device Use: When Clinical Need Outpaces Regulatory Approval (U), Las Vegas, NV, February 27, 2009
- 54. Organizer of Mayo Clinic Department of Orthopedic Surgery Air Force Team Visit: Maj RJ Terracciano, CSS Element Chief WHMC and Maj Jad Alota, OR Informatics Officer WHMC, Rochester, MN, August 3-4, 2009
- 55. Course co-director with Bradford Currier, M.D., Mayo Clinic College of Medicine 5<sup>th</sup> Annual International Spine Symposium, Big Island, HI, January 31- February 4, 2010

- 56. Moderators, Pichelmann M and Yaszemski MJ: Mayo Clinic College of Medicine 5<sup>th</sup> Annual International Spine Symposium, Session III: Concurrent Orthopedic and Neurosurgery Self Assessment Exam Sessions, Big Island, HI, January 31, 2010
- 57. Roundtable Discussant, Mayo Clinic College of Medicine 5<sup>th</sup> Annual International Spine Symposium, Spinal Tumors, Big Island, HI, February 4, 2010
- 58. Moderators, Yaszemski MJ and Pioletti D: Session 21, Scaffolds, 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, March 7, 2010
- 59. Organizers and Moderators, Greenwald AS and Yaszemski MJ: Off-Label Device Use: When Clinical Need Outpaces Regulatory Approval, American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 10, 2010
- 60. Organizer and Host, Yaszemski MJ: National Defense University International Fellows Program Visit to Mayo, Rochester, MN, September 2010
- 61. Session Co-Chair, Yaszemski MJ and Miller W: Restoring of Hearing, Frontiers in Biomedical Research: Regenerative Medicine, Karolinska Institute, Stockholm, Sweden, November 4, 2010
- 62. Organizer and Moderator, Yaszemski MJ: Extremity War Injuries VI: Data-Driven Progress in Combat Casualty Care Session on Axial Skeleton Injuries. 6<sup>th</sup> Annual Extremity War Injuries Symposium, Washington DC, January 20, 2011
- 63. Organizer for, and introduction of, Keynote Speaker: the Honorable Tim Walz (DFL-MN), House Committee on Veteran's Affairs, 6<sup>th</sup> Annual Extremity War Injuries Symposium, Washington DC, January 20, 2011
- 64. Patient Representative, Yaszemski MJ: American Academy of Orthopaedic Surgeons 2011 Research Capitol Hill Days, Washington DC, March 15-17, 2011
- 65. Course Co-director with Paul Huddleston, M.D., 6<sup>th</sup> Annual Mayo Clinic Spine Symposium, Key West, FL, March 20-24, 2011
- 66. Moderator, Shaffrey CI, Yaszemski MJ: Breakfast Roundtable Discussion, Topic#1: Deformity Surgery, 6<sup>th</sup> Annual Mayo Clinic Spine Symposium, Key West, FL, March 22, 2011
- 67. Moderators and Organizers, Yaszemski MJ and Ficke JR: Panel Discussion: Biomaterial Challenges of Battlefield Injuries, Society for Biomaterials 2011 Annual Meeting, Orlando, FL, April 16, 2011
- 68. Moderator and Organizer, Yaszemski MJ: Session 4D-Osteoporotic Spine: Fixation Challenges and Solutions, 18<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 15, 2011
- 69. Moderator, Round Table Case Discussions: Tumor, Trauma, and Infection; 18<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 15, 2011
- 70. Organizer and Host, Yaszemski MJ: National Defense University International Fellows Program Visit to Mayo, Rochester, MN, September 9, 2011
- 71. Organized visit with two of my sarcoma oncology patients to Congresspersons and Senators as part of the American Academy of Orthopaedic Surgeons' Capitol Hill Day to deliver a message in support of increased NIH funding, October 2011
- 72. Moderator, Yaszemski MJ: Session 48: Spine, Orthopaedic Research Society 58<sup>th</sup> Annual Meeting, San Francisco, CA, February 7, 2012
- 73. Course Co-director with Paul Huddleston, M.D., 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 25-28, 2012

- 74. Moderator, Breakfast Roundtable Discussion Topic #2: Spinal Oncology: Case Studies; 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 26, 2012
- 75. Moderator, Breakfast Roundtable Discussion Topic #1: Deformity Surgery: Case Studies; 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 27, 2012
- 76. Moderator, Session III: Degenerative Scoliosis: 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 27, 2012
- 77. Moderator, American Board of Orthopaedic Surgery (ABOS) Maintenance of Certification Course: ABOS Spine Exam prepared by the Congress of Neurologic Surgeons. 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 28, 2012
- 78. Roundtable Discussant, Yaszemski MJ: Silicon Valley Mayo, MIT, Louisville Collaboration, The International Conference VAIL Europe 2012, Wroclaw, Poland, May 23, 2012
- 79. Moderator and Speaker, Yaszemski MJ: Management of Sacropelvic Tumors, 19<sup>th</sup> International Meeting on Advanced Spine Technologies (IMAST), Istanbul, Turkey, July 19, 2012
- 80. Moderator, Yaszemski MJ: Tumor/Trauma/Infection, 19<sup>th</sup> International Meeting on Advanced Spine Technologies (IMAST), Istanbul, Turkey, July 20, 2012
- 81. Moderator and Speaker, Yaszemski MJ: The Osteoporotic Spine: Fixation Challenges and Solutions, 19<sup>th</sup> International Meeting on Advanced Spine Technologies (IMAST), Istanbul, Turkey, July 21, 2012
- 82. Moderator, Yaszemski MJ: Innovative and Diagnostic Methods, 19<sup>th</sup> International Meeting on Advanced Spine Technologies (IMAST), Istanbul, Turkey, July 21, 2012
- 83. Moderator, Yaszemski MJ: Scoliosis Research Society: Papers, 19<sup>th</sup> International Meeting on Advanced Spine Technologies (IMAST), Istanbul, Turkey, July 18-21, 2012
- 84. Panel Discussant, Yaszemski MJ: BMP2, the Bone Growth Factor, Society for Biomaterials 2013 Annual Meeting, Boston, MA, April 10, 2013
- 85. Moderators, Greenwald AS and Yaszemski MJ: Symposium 1: Off-Label Device Use: Acting in the Best Interest of your Patient. American Orthopaedic Association Annual Meeting, Denver, CO, June 13, 2013
- 86. Moderators, Cheung KMC and Yaszemski MJ: Whitecloud Basic Science Award Nominees and Top Scoring Abstracts. 20<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Vancouver, BC, Canada, July 11, 2013
- 87. Moderator, Yaszemski MJ: Management of Primary Spine Tumors Session. 20<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Vancouver, BC, Canada, July 11, 2013
- 88. Moderator, Yaszemski MJ: Navigating Grants and Securing Research Funding. Session III, American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Career Development Program, Rosemont, IL, September 26, 2013
- 89. Chair, Yaszemski MJ: NIAMS Musculoskeletal Biology P30 Review Meeting, Washington, DC, November 7-8, 2013
- 90. Moderators, Yaszemski MJ and Helgeson MD: Spine Scientific Session, 55<sup>th</sup> Society of Military Orthopaedic Surgeons Annual Meeting, Vail, Colorado, December 13, 2013
- 91. Moderators, Yaszemski MJ and Richardson M: General Scientific Session: Case Presentations. 55<sup>th</sup> Society of Military Orthopaedic Surgeons Annual Meeting, Vail, Colorado, December 13, 2013

- 92. Moderator, Yaszemski MJ: Update on Diagnosis and Management of Notchordal Tumors, 4<sup>th</sup> Annual Sacropelvic Study Group Conference, New York City, NY, January 24, 2014
- 93. Moderator, Yaszemski MJ: Extremity War Injuries IX: Combat Casualty Care Session on Spinal Trauma: Timing of Surgery for SCI/Spinal Column. 9<sup>th</sup> Annual Extremity War Injuries Symposium, Washington DC, February 12, 2014
- 94. Organizers and Moderators, Lehman R, and Yaszemski MJ: Session III, Spinal and Pelvic Trauma, Extremity War Injuries IX: Reducing Disability within the Military, Washington, DC, February 12, 2014
- 95. Faculty member, Yaszemski MJ: Maximizing Career and Job Satisfaction, Maximizing Your Practice's Potential in the New Health Care Environment, AAOS 2014 Annual Meeting, New Orleans, LA, March 11, 2014
- 96. Moderator, Yaszesmki MJ: Funding Mechanisms for Clinical Research, AAOS 2014 Annual Meeting, New Orleans, LA, March 16, 2014
- 97. Moderator, Yaszemski MJ: Bone Tissue Engineering, Orthopaedic Research Society (ORS) 2014 Annual Meeting, New Orleans, LA, March 17, 2014
- 98. Organizer and Faculty Member, Yaszemski MJ: Tissue Engineered Medical Products: Bedside to Bench and Back, Orthopaedic Research Society (ORS) 2014 Annual Meeting, New Orleans, LA, March 17, 2014
- 99. Faculty member, Yaszemski MJ: Office Based Non-operative Trends in Orthopedics, Texas Orthopaedic Association Meeting, San Antonio, TX, April 12, 2014
- 100. Moderators, Schwab FJ and Yaszemski MJ: Whitecloud Basic Research Award Nominees and Top Scoring Abstracts. 21<sup>st</sup> International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 17, 2014
- 101. Moderators, Yaszemski MJ and Oner FC: My Worst Complication Series: Strategies to Prevent/Manage. 21<sup>st</sup> International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 17, 2014
- 102. Moderator, Yaszemski MJ: The Role of the Department of Defense Funding Agencies Advanced Research Projects Agencies y (DARPA)/Orthopaedic Extremity Trauma Research Program. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Career Development Program, Rosemont, IL, September 26-27, 2014
- 103. Panel Discussant, Yaszemski MJ: US Military Investment in Regenerative Medicine, 10<sup>th</sup> Anniversity World Stem Cell Summit, San Antonio, TX, December 3-5, 2014
- 104. Moderator, Yaszemski MJ: Spine Infection Case Presentations. 9<sup>th</sup> Annual Mayo Clinic Spine Center Medical and Surgical Spine Course. Mayo Clinic Education Center, Phoenix, AZ, January 17, 2015
- 105. Yaszemski MJ: The Armed Forces Institute of Regenerative Medicine (AFIRM) Extremity War Injuries X: Return to Health and Function, Washington, DC, Jan 27, 2015
- 106. Co-Organizers and Co-Moderators, Maher SA and Yaszemski MJ: The Realities of Commercializing Orthopaedic Technologies: Business Strategies, Funding, Partnerships, and Juggling Academic & Corporate Roles. Orthopaedic Research Society (ORS) Annual Meeting, March 30, 2015
- 107. Moderators, Yaszemski MJ and Rose PS: Session 15, Tumors and Resident Education. Annual Meeting of the Mid-America Orthopaedic Association, Hilton Head, NC, April 25, 2015

- 108. Moderators, Cheung KMC and Yaszemski MJ: Whitecloud Basic Science Nominees and Top Scoring Abstracts. 22<sup>nd</sup> International Meeting on Advanced Spinal Techniques (IMAST). Kuala Lumpur, Malaysia, July 9, 2015
- 109. Moderators, Singh H and Yaszemski MJ: My Worst Complication Series: Strategies to prevent/Manage. 22<sup>nd</sup> International Meeting on Advanced Spinal Techniques (IMAST). Kuala Lumpur, Malaysia, July 9, 2015
- 110. Moderator, Yaszemski MJ: Management of Metastatic Spine Disease. 22<sup>nd</sup> International Meeting on Advanced Spinal Techniques (IMAST). Kuala Lumpur, Malaysia, July 11, 2015
- 111. Moderator, Yaszemski MJ: Session VII: Resources and Opportunities for Research Funding. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Development Program, Rosemont, IL, September 19, 2015
- 112. Moderators, Helgeson MD and Yaszemski MJ: Spine Symposium. 57<sup>th</sup> Annual Meeting of the Society of Military Orthopaedic Surgeons (SOMOS). St. Petersburg, FL, December 11, 2015

## PRESENTATIONS AT LOCAL MEETINGS

- 1. Yaszemski MJ: Thoracolumbar Fractures, Mayo Clinic Fracture Conference, July 16, 1997
- 2. Yaszemski MJ: Analysis and Treatment of Sagittal and Coronal Plane Spinal Deformity, 1<sup>st</sup> Mayo Regional Practice Symposium, Rochester, MN, August 2, 1997
- 3. Yaszemski MJ: New Concepts and Update in Spinal Deformity, Mayo Foundation Clinical Reviews, Rochester, MN, October 30, 1997 and November 21, 1997
- 4. Yaszemski MJ: Spondylolysis in the Athlete, Mayo Clinic Symposium on Sports Medicine, Rochester, MN, November 7, 1997
- 5. Yaszemski MJ: Back Pain in Children, Mayo Clinic Fracture Conference, December 1997
- 6. Yaszemski MJ: Metastatic Disease of the Spine, Mayo Clinic Fracture Conference, February 11, 1998
- 7. Yaszemski MJ: Metastatic Spine Tumors: Assessment and Management of Spinal Instability, Mayo Clinic Fracture Conference, January 6, 1999
- 8. Yaszemski MJ: Bone Regeneration via Synthetic Degradable Polymer Matrices that Provide Controlled Delivery of Cells and Bioactive Molecules, Department of Anesthesiology Grand Rounds, Mayo Clinic, Rochester, MN, April 14, 1999
- 9. Yaszemski MJ: Bone Tissue Engineering, Mayo Foundation Research Forum, Rochester, MN, October 2, 1999
- 10. Yaszemski MJ: Tissue Engineering, Mayo Clinic Orthopedic Alumni Meeting, Rochester, MN, October 15, 1999
- 11. Yaszemski MJ: Evaluation and Management of Lumbar Flatback, Mayo Clinic Orthopedic Alumni Meeting, Rochester, MN, October 16, 1999
- 12. Yaszemski MJ, He S-L, Crow FW, and Naylor S: Characterization of Biodegradable Bone Regeneration Scaffolds Based on Poly(propylene fumarate) Using Matrix Assisted

- Laser Desorption Ionization Time-of-Flight Mass Spectrometry to Determine Molecular Weight Distributions, Mayo Foundation Research Forum, Rochester, MN, December, 2000
- 13. Yaszemski MJ: Upper Cervical Spine Injuries, Mayo Residency Trauma Lecture Series, Rochester, MN, June 9, 2001

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- Kempen DHR, Lu L, Zhu X, Currier BL, and Yaszemski MJ: Microspheres for the 14. controlled release of bioactive molecules, Research in Progress Meeting, Mayo Clinic, Rochester, MN, November 9, 2001
- Yaszemski MJ: Evaluation and Management of Spinal Metastatic Disease, Mayo Spine 15. Surgery Core curriculum Lecture Series, Rochester, MN, January 14, 2003
- 16. Yaszemski MJ: The FDA Orthopaedic Device Approval Process, Mayo Orthopedic Department Grand Rounds, Rochester, MN, January 15, 2003
- Yaszemski MJ: Evaluation and Management of Spinal Metastatic Disease, Mayo 17. Orthopedic Residency Spine Curriculum Lecture, Rochester, MN, March 16, 2004
- 18. Yaszemski MJ: Sacral Chordoma: Treatment and Surgical Reconstruction, Mayo Clinic Department of Orthopedic Surgery Grand Rounds, Rochester, MN, September 27, 2004
- 19. Yaszemski MJ: Spinopelvic Reconstruction after Lumbo-Sacral-Iliac Resection, Augustus A. White III M.D., Ph.D. Spine Fellows Reunion Meeting, Harvard Medical School, Boston, MA, October 18, 2005
- Yaszemski MJ: Deployment to the Air Force Theater Hospital Balad: A Reserve 20. Component Perspective, 934<sup>th</sup> Air Reserve Wing pre-deployment briefing, Minneapolis, MN, January 2, 2007
- Yaszemski MJ: Deployment to Iraq, Mayo Clinic Charter House Lecture Series, February 21. 1,2007
- Yaszemski MJ: Musculoskeletal Tissue Engineering and Controlled Delivery of 22. Anticancer Agents, Development Grand Rounds, Mayo Clinic, August 6, 2007
- 23. Yaszemski, MJ: The Air Force Theater Hospital Balad, Mayo Clinic, Orthopedic Research Conference, January 9, 2008
- Yaszemski MJ: Treatment of War Injuries and the Medical Care of Civilians in 24. Afghanistan and Iraq, Rotary Club of Rochester Presentation, January 17, 2008
- 25. Yaszemski MJ: The Mayo Clinic Tissue Engineering and Polymeric Biomaterials Laboratory, Biomedical Engineering Seminar, Mayo Clinic, Rochester, MN, July 11, 2008
- Yaszemski MJ: Spinopelvic Tumor Resection and Reconstruction: The Team Approach, 26. Department of Anesthesiology Grand Rounds, Mayo Clinic, Rochester, MN, July 21, 2008
- 27. Yaszemski MJ: Center for Translational Science Capabilities, Armed Forces Institute of Regenerative Medicine Executive Committee Meeting, Cleveland Clinic, Cleveland, OH, July 24, 2008
- 28. Yaszemski MJ: The Management of Metastatic Spine Disease, Spine Conference, Mayo Clinic, Rochester, MN, November 4, 2008
- Yaszemski MJ: Caring for our Wounded Warriors: The Armed Forces Institute of 29. Regenerative Medicine (AFIRM) Research Program, Rotary Club of Rochester Presentation, Rochester, MN, January 29, 2009

- 30. Yaszemski MJ: Policy Revision-Review and Approval and Disclosure of Physician Relationships with Commercial Entities: Recommendation and Discussion, Mayo Clinic Board of Governors, Rochester, MN, February 9, 2009
- 31. Yaszemski MJ: 2009 Board of Trustees Annual Financial Disclosure Summary Meeting, Emerging Issues in Conflict of Interest, Jacksonville, FL, February 20, 2009
- 32. Yaszemski MJ: Teamwork and Quality at Mayo Clinic and the United States Air Force Medical Service, Surgery Quality Conference, Department of Surgery, Mayo Clinic, Rochester, MN, March 16, 2009
- 33. Yaszemski MJ: Striking the Balance between Clinical Practice and Research as a Surgeon, Cancer Center K12 Scholars, Mayo Clinic, April 2, 2009
- 34. Yaszemski MJ: Division of Gynecologic Surgery, Conflict of Interest and Industry Relationships: Manageable or Not?, Mayo Clinic, April 13, 2009
- 35. Yaszemski MJ: Mayo Clinic System Interfaces, Military Medical Capstone Leadership Conference, Bolling AFB/Pentagon/Mayo Clinic, Rochester, MN, April 15, 2009
- 36. Yaszemski MJ: Department of Orthopedics Grand Rounds, Implementing Conflict of Interest Policies in Clinical Practice at Mayo Clinic, July 6, 2009
- 37. Yaszemski MJ: Mayo Graduate School Core 6000: Responsible Conduct of Research, Implementing Conflict of Interest Policies in Clinical Practice at Mayo Clinic, July 30, 2009
- 38. Yaszemski MJ: Orthopaedic Research, Division of Surgical Services Conference, Mayo Clinic, Rochester, MN, November 23, 2009
- 39. Yaszemski MJ: Orthopedic Grand Rounds, Standardization and the FDA in the Evaluation of Orthopedic Surgical Devices, Department of Orthopedics, Mayo Clinic, Rochester, MN, January 11, 2010
- 40. Yaszemski MJ: Polymeric Biomaterials: Musculoskeletal Regenerative and Reconstructive Medicine at Mayo Clinic, The Mayo Legacy's (TML) 20<sup>th</sup> Anniversary, Rochester, MN, May 7, 2010
- 41. Yaszemski MJ: Process Improvements in Conflict of Interest, Orthopedic Surgery Department Lecture Series, Rochester, MN, December 6, 2010
- 42. Yaszemski MJ: Oncologic Applications of Tissue Engineering Strategies, Neuro-Oncology Research Conference, Rochester, MN, May 9, 2011
- 43. Yaszemski MJ: Mobilization Assistant Update, SMOG Meeting, United States Air Force, Atlanta, GA, May 14, 2011
- 44. Yaszemski, MJ: Identification and Protection of the Pudendal Nerve in Sacrectomy. Presentation and Cadaver Demonstration, Orthopedic Research and Education Foundation grant meeting "Spinopelvic Reconstruction Techniques" (P. Rose, course Director), Mayo Clinic, Rochester, MN, January 28, 2012
- 45. Yaszemski, MJ: Mayo Clinic Welcome Orientation to New Allied Health Staff, Rochester, MN, April 9, 2012
- 46. Yaszemski, MJ: Cauda Equina Syndrome. Mayo Clinic Department of Orthopaedic Surgery Grand Rounds mini spine symposium, April 16, 2012
- 47. Yaszemski, MJ: Conflict of Interest: The New Federal Regulations. Mayo Clinic Quarterly Research Gathering, June 5, 2012
- 48. Yaszemski, MJ: Conflict of Interest Update. Mayo Clinic Research Committee Meeting. July 3, 2012

- 49. Yaszemski, MJ: Musculoskeletal Tissue Engineering. Endocrine Grand Rounds, Mayo Clinic Rochester, October 3, 2012
- 50. Yaszemski, MJ: Bedside to Bench and Back: Musculoskeletal Tissue Engineering. Center for Clinical and Translational Science (CCaTS) Grand Rounds, Mayo Clinic Rochester, February 20, 2015

### PRESENTATIONS AT REGIONAL MEETINGS

- 1. Thomson RC, Yaszemski MJ, Powers JM, and Mikos AG: A Biodegradable Poly(lactic-co-glycolic acid) Scaffolds to Engineer Bone, 12th Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 10, 1994
- 2. Ishaug SL, Yaszemski MJ, Bizios R, and Mikos AG: Osteoblast culture on Biodegradable Polymers as an *In Vitro* Model of Bone Regeneration, 12th Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 11, 1994
- 3. Payne RG, Mikos AG, Larsen KM, and Yaszemski MJ: Synthesis and Characterization of Poly (propylene fumarate), a Linear Unsaturated Polyester for Orthopaedic Applications, 12th Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 10, 1994
- 4. Mabrey JD, Williams RP, and Yaszemski MJ: Custom Acetabular Prostheses for Complex Defects, Annual Meeting of the Texas Orthopaedic Association, Austin, TX, May 14, 1994
- 5. Yaszemski MJ, Payne RG, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: A Temporary Replacement for Trabecular Bone: The Design and Testing of a Novel Degradable Composite Biomaterial, Thirteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 16, 1995
- 6. Thomson RC, Yaszemski MJ, Powers JM, Harrigan TP, and Mikos AG: Reinforcement of Poly (α- Hydroxy Ester) Foams for Orthopaedic Applications Using Hydroxyapatite Short Fibers, Thirteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 16, 1995
- 7. Ishaug SL, Yaszemski MJ, Bizios R, Aufdemorte TB, and Mikos AG: Migratory Characteristics of Osteoblast and Bone Cultures on Synthetic Biodegradable Polymers. Thirteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 16, 1995
- 8. Peter SJ, Engel PS, Alemany LB, Miller MJ, Yaszemski MJ, and Mikos AG: Synthesis and Characterization of an Osteoinductive, Injectable, Biodegradable Bone Cement, Fourteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 8, 1996
- 9. Suggs LJ, Yaszemski MJ, Wu KK, and Mikos AG: The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly (Propylene Fumarate) and Poly (Ethylene Glycol), Fourteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 8, 1996
- 10. Ishaug SL, Crane GM, Miller MJ, Yaszemski MJ, and Mikos AG: Bone Formation using Stromal Osteoblasts Cultured in Biodegradable Polymer Foams, Fourteenth Annual Conference of the Houston Society for Engineers in Medicine and Biology, Houston, TX, February 10, 1996

- 11. Ruder C, Dixon P, Mikos AG, and Yaszemski MJ: The Growth and Phenotypic Expression of Human Osteoblasts on Synthetic Biodegradable Polymer Scaffolds, Southern Biomedical Engineering Conference, Dayton, OH, March 29, 1996
- 12. Yaszemski MJ: Clinical Biomechanics of Low Back Pain (LBP) and Practical Ergonomics, Management of Low Back Pain and Sciatica in the Era of Managed Care, Harvard Division of Continuing Medical Education, Boston, MA, October 17-19, 1996
- 13. Yaszemski MJ: Disc Herniation, Degeneration and Intrinsic Disc Disease, Management of Low Back Pain and Sciatica in the Era of Managed Care, Harvard Division of Continuing Medical Education, Boston, MA, October 17-19, 1996
- 14. Yaszemski MJ: The Western Perspective of Alternative Medical Therapies, Management of Low Back Pain and Sciatica in the Era of Managed Care, Harvard Division of Continuing Medical Education, Boston, MA, October 17-19, 1996
- 15. Kim DJ, Peter SJ, Yasko AW, Yaszemski MJ, Mikos AG: Osteoblastic Cellular Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial, Annual Meeting of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 13, 1997
- Palmer C, Murray P, Snearly W, Yaszemski M: The Mechanism of Ulnar-Sided Perilunar Instability of the Wrist, The 14<sup>th</sup> Annual Meeting of the Southern Orthopaedic Association, Pebble Beach, CA, July 24, 1997
- 17. Palmer C, Murray P, Snearly W, Yaszemski M: The Mechanism of Ulnar-Sided Perilunar Instability of the Wrist, The Roy Davies Scientific Paper Competition, San Antonio, TX, May 8, 1998
- 18. Palmer C, Murray P, Snearly W, Yaszemski M: The Mechanism of Ulnar-Sided Perilunar Instability of the Wrist, Senior Residents Day, Department of Orthopaedic Surgery, Wilford Hall Medical Center, Lackland AFB, San Antonio, TX, June 11, 1998
- 19. Yaszemski, MJ: Bone Tissue Engineering, 92<sup>nd</sup> Annual Meeting of the Interurban Orthopaedic Society, Johns Hopkins University, Baltimore, MD, October 3, 1998
- 20. Stans AA, Moir C, Yaszemski MJ, Blackman, RG: Safety and Screw Failure of Vertebral Body Screws Inserted Endoscopically Versus Open Technique in a Porcine Model, 18<sup>th</sup> Annual Meeting of the Mid-America Orthopaedic Association, Scottsdale, AZ, April 28, 2000
- 21. Stans AA, Moir C, Yaszemski MJ, Blackman RG: Safety and Screw Failure of Vertebral Body Screws Inserted Endoscopically Versus Open Technique in a Porcine Model, Minnesota Orthopaedic Society, 2000 Annual Meeting, May 19, 2000
- 22. Christensen DM, Lynch JJ, Yaszemski MJ, and Currier BL: C1 Anatomy and Dimensions Relative to Lateral Mass Screw Placement, Minnesota Orthopaedic Society, 2001 Annual Meeting, May 18, 2001
- 23. Yaszemski MJ: The Scoliosis Research Society Mortality and Morbidity Database: Evaluation and Recommendation for Change, Scoliosis Research Society Strategic Planning Retreat, San Diego, CA, February 11, 2007
- 24. Yaszemski MJ: American Academy of Orthopaedic Surgeons, Board of Councilors/National Orthopaedic Leadership Conference, President's Address at Annual Business Meeting, Minneapolis, MN, May 9, 2008
- 25. Yaszemski MJ: Musculoskeletal Regenerative Medicine, 39th Annual Orthopaedic and Trauma Seminar, Minneapolis, MN, November 6, 2009

- 26. Yaszemski MJ: The World of Regenerative Medicine, 40<sup>th</sup> Annual Orthopaedic and Trauma Seminar, Minneapolis, MN, November 20, 2010
- 27. Yaszemski MJ: Clinical Requirements that Drive Implant Design for the Treatment of Skeletal Defects. 13<sup>th</sup> Annual University of Minnesota Design of Medical Devices Conference, University of Minnesota, Minneapolis, MN, April 8, 2014
- 28. Sebastian AS, Currier BL, Rose PS, Larson D, Huddleston PM, Yaszemski MJ, and Nassr A: Thromboembolic Disease After Cervical Spine Surgery: A Review of 5,405 Procedures and Matched Cohort. Annual Meeting of the Mid-America Orthopaedic Association, Hilton Head, NC, April 24, 2015
- 29. Arutyunyan G, Sebastian AS, Murdoch N, Rose PS, Wenger D, Currier BL, Sim FH, and Yaszemski MJ: Prognostic Factors of Early Mortality in Patients Undergoing Spinopelvic Tumor Resection. Annual Meeting of the Mid-America Orthopaedic Association, Hilton Head, NC, April 25, 2015
- 30. Wagner ER, Dadsetan M, Bravo D, van Wijnen A, Yaszemski MJ, and Kakar S: Poly(caprolactone fumarate) (PCLF) as a Backbone for Chondrocyte Attachment and Proliferation Augmented by Platelet Lysate (poster). Annual Meeting of the Mid-America Orthopaedic Association, Hilton Head, NC, April 22-26, 2015
- 31. Sebastian AS, Kakar S, Habermann EB, Wagie AE, Huddleston PM, Yaszemski MJ, and Nassr A: Risk Factors for Surgical Site Infection After Posterior Cervical Spine Surgery: Analysis from ACS-NSQIP 2005-2012 (poster). Annual Meeting of the Mid-America Orthopaedic Association, Hilton Head, NC, April 22-26, 2015

# PRESENTATIONS AT NATIONAL MEETINGS

- 1. Yaszemski MJ and Eady JL: The use of the CT scan in the evaluation of non-popliteal synovial cysts about the knee, Society of Air Force Clinical Surgeons 33<sup>rd</sup> Annual Symposium, Dayton, OH, April 30, 1986
- 2. Shepler TR and Yaszemski MJ: Flexor carpi radialis ganglion cysts: Diagnosis and treatment, Society of Military Orthopaedic Surgeons 28<sup>th</sup> Annual Meeting, Colorado Springs, CO, November 18, 1986
- 3. Yaszemski MJ and Shepler TR: Sudden death from cord compression associated with atlanto-axial instability in rheumatoid arthritis: A case report, Society of Military Orthopaedic Surgeons 28<sup>th</sup> Annual Meeting, Colorado Springs, CO, November 19, 1986
- 4. Yaszemski MJ: The design of a sheathed flexible shaft drill for screw fixation of acetabular cups, Society of Military Orthopaedic Surgeons 32<sup>nd</sup> Annual Meeting, Williamsburg, VA, November 12, 1990
- 5. Yaszemski MJ and White III AA: The discectomy membrane: Its anatomic description and its surgical importance, Society of Military Orthopaedic Surgeons 34<sup>th</sup> Annual Meeting, Colorado Springs, CO, November 29 December 4, 1992
- 6. Olszewski A, Yaszemski MJ, and White III AA: The anatomy of the human ligamentum flavum: A new look at its insertions onto adjacent laminae in the lumbar spine, Society of Military Orthopaedic Surgeons 34<sup>th</sup> Annual Meeting, Colorado Springs, CO, November 29 December 4, 1992
- 7. Ethier DB, Cain JE, Lauerman WC, Glover M, and Yaszemski MJ: The influence of annulotomy type on disc competence, Society of Military Orthopaedic Surgeons 34<sup>th</sup>

- Annual Meeting, Colorado Springs, CO, November 29 December 4, 1992 (Received Kirk Award as best scientific presentation at meeting.)
- 8. Olszewski A, Yaszemski MJ, and White III AA: The anatomy of the human ligamentum flavum: A new look at its insertions onto adjacent laminae in the lumbar spine (poster), American Academy of Orthopaedic Surgeons 60<sup>th</sup> Annual Meeting, San Francisco, CA, February 17-23, 1993
- 9. Olszewski A, Yaszemski MJ, and White III AA: The anatomy of the human ligamentum flavum: A new look at its insertions onto adjacent laminae in the lumbar spine, The American Orthopaedic Association 26<sup>th</sup> Annual Resident's Conference, Seattle, WA, March 20, 1993
- 10. Gomez BA and Yaszemski MJ: The effect of Ketorolac on the strength of wound healing in a rat model, The American Orthopaedic Association 26<sup>th</sup> Annual Resident's Conference, Seattle, WA, March 20, 1993
- 11. Yaszemski MJ: A degradable polymeric biomaterial for orthopaedic applications, Society of Air Force Clinical Surgeons 40<sup>th</sup> Annual Symposium, Biloxi, MS, April 20, 1993
- 12. Ethier DB, Cain JE, Lauerman WC, Glover M, and Yaszemski MJ: The influence of annulotomy type on disc competence, North American Spine Society Annual Meeting, San Diego, CA, October 15, 1993
- 13. Yaszemski MJ, Mikos AG, Langer RS, and Hayes WC: The synthesis and characterization of poly (propylene-fumarate) via a two step reaction between diethyl fumarate and propylene glycol, Annual Meeting of the American Institute of Chemical Engineers, St. Louis, MO, November 10, 1993
- 14. Thomson RC, Yaszemski MJ, Powers JM, and Mikos AG: A novel biodegradable poly (lactic-co-glycolic acid) foam for bone regeneration, Materials Research Society Fall 1993 Meeting, Boston, MA, November 29, 1993
- 15. Ishaug SL, Yaszemski MJ, Bizios R, and Mikos AG: Osteoblast adhesion on biodegradable polymer substrates, Materials Research Society Fall 1993 Meeting, Boston, MA, November 30, 1993
- 16. Yaszemski MJ, Mikos AG, Payne R, and Hayes WC: The effect of polymer molecular weight on the mechanical properties of a degradable composite biomaterial based on poly (propylene-fumarate) for orthopaedic applications, Materials Research Society Fall 1993 Meeting, Boston, MA, December 1, 1993
- 17. Sutherland J, Yaszemski MJ, and White III AA: A radiographic and anatomic correlation of the C1-C2 relationships in a ligamentously intact cadaver spine model, Research Project Progress Report, Annual Meeting of the Cervical Spine Research Society, New York, NY, December 4, 1993
- 18. Ethier DB, Cain JE, Lauerman WC, Glover M, and Yaszemski MJ: The influence of annulotomy type on disc competence, American Academy of Orthopaedic Surgeons 61<sup>st</sup> Annual Meeting, New Orleans, LA, February 27, 1994
- 19. Yaszemski MJ, Payne RG, Hayes WC, Langer RS, and Mikos AG: Synthesis and purification reaction schemes for poly (propylene fumarate), a novel degradable material for orthopaedic applications, 20<sup>th</sup> Annual Meeting of the Society for Biomaterials (poster), Boston, MA, April 8, 1994
- 20. Olszewski A, Yaszemski MJ, and White III AA: The anatomy of the human ligamentum flavum: A new look at its insertions onto adjacent laminae in the lumbar spine, Society of Air Force Clinical Surgeons 41<sup>st</sup> Annual Meeting, San Antonio, TX, April 27, 1994

- 21. Yaszemski MJ: Bone repair and reconstruction, Society of Air Force Clinical Surgeons 41<sup>st</sup> Annual Meeting, San Antonio, TX, April 26, 1994
- 22. Yaszemski MJ and Parsons III TW: Bertolotti vertebra: A cause of neural compression resulting in L5 radiculopathy, Society of Air Force Clinical Surgeons 41<sup>st</sup> Annual Meeting, San Antonio, TX, April 26, 1994
- 23. Kaylor KL, Carmack DB, and Yaszemski MJ: Reducibility of external fixators (poster), Annual Meeting of the Orthopaedic Trauma Association, Los Angeles, CA, September 22-24, 1994
- 24. Carmack DB, Kaylor KL, and Yaszemski MJ: Biomechanics of clinically applied external fixators (poster), Annual Meeting of the Orthopaedic Trauma Association, Los Angeles, CA, September 22-24, 1994
- 25. Ethier DB, Cain JE, Lauerman WC, Glover JM, and Yaszemski MJ: The influence of annulotomy type on disc competence, Annual Meeting of the Scoliosis Research Society, Portland, OR, September, 1994
- 26. Payne RG, Yaszemski MJ, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: The uncatalyzed synthesis of poly (propylene fumarate), its strength and bone ingrowth characteristics as a material for orthopaedic use, Annual Meeting of the Biomedical Engineering Society, Tempe, AZ, October 16, 1994
- 27. Thomson RC, Yaszemski MJ, Powers JM, and Mikos AG: Fabrication of poly (lactic-co-glycolic acid)/glass ceramic fiber composite foams for orthopaedic application, Annual Meeting of the Biomedical Engineering Society, Tempe, AZ, October 16, 1994
- 28. Ingari JV, Smith DK, and Yaszemski MJ: The anatomic significance of magnetic resonance imaging findings in proximal femur fracture, 36<sup>th</sup> Annual Meeting of the Society of Military Orthopaedic Surgeons, Hilton Head, SC, November 15, 1994
- 29. Bolyard KJ, Yaszemski MJ, Poser J, Scarborough N, Manrique A, Aufdemorte TB, and Fox WC: Bone formation in response to human demineralized bone matrix and grafton in a baboon healing defect, 36<sup>th</sup> Annual Meeting of the Society of Military Orthopaedic Surgeons, Hilton Head, SC, November 15, 1994
- 30. Ishaug SL, Hoffman SA, Yaszemski MJ, Bizios R, and Mikos AG: Osteoblast culture on poly (α-hydroxy esters) as an *in vitro* model of bone engineering, Annual Meeting of the American Institute of Chemical Engineers, San Francisco, CA, November 16, 1994
- 31. Yaszemski MJ, Payne RG, Hayes WC, Langer RS, Aufdemorte TB, and Mikos AG: Temporary replacement for trabecular bone: The design, synthesis, and testing of a novel degradable material for orthopaedic applications (poster), Annual Meeting of the American Institute of Chemical Engineers, San Francisco, CA, November 13-18, 1994
- 32. Kaylor KL, Yaszemski MJ, and Carmack DB: Reducibility of external fixators, Society of Military Orthopaedic Surgeons 36<sup>th</sup> Annual Meeting, Hilton Head, SC, November 15, 1994
- 33. Jordan T, France JC, Kaylor KL, and Yaszemski MJ: Job related outcome of lumbar discectomy in active duty military members, Society of Military Orthopaedic Surgeons 36<sup>th</sup> Annual Meeting, Hilton Head, SC, November 16, 1994
- 34. Sutherland J, Yaszemski MJ, and White III AA: A radiographic and anatomic correlation of the C1-C2 relationships in a ligamentously intact cadaver spine model, Cervical Spine Research Society 22<sup>nd</sup> Annual Meeting, Baltimore, MD, November 30, 1994

- 35. Jordan TF, France JC, Kaylor KL, Watson BP, and Yaszemski MJ: Job related outcome of lumbar discectomy in active duty military members, American Academy of Orthopaedic Surgeons 62<sup>nd</sup> Annual Meeting, Orlando, FL, February 18, 1995
- 36. Mikos AG, Ishaug SL, Thomson RC, Payne RG, Aufdemorte TB, and Yaszemski MJ: Engineering trabecular bone, American Association for the Advancement of Science Annual Meeting and Science Innovation Exposition, Atlanta, GA, February 21, 1995
- 37. Yaszemski MJ, Payne RG, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: The mechanical and degradation characteristics of a composite material for orthopaedic applications, Society for Biomaterials 21<sup>st</sup> Annual Meeting, San Francisco, CA, March 21, 1995
- 38. Yaszemski M.J, Payne RG, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: The *in vitro* mechanical strength and *in vivo* bone ingrowth of a degrading polymeric composite biomaterial, Materials Research Society, Spring 1995 Meeting, San Francisco, CA, April 18, 1995
- 39. Thomson RC, Yaszemski MJ, Powers JM, Harrigan TP, and Mikos AG: Poly (α-hydroxy ester)/short fiber hydroxyapatite composite foams for orthopaedic application, Materials Research Society, Spring 1995 Meeting, San Francisco, CA, April 18, 1995
- 40. Suggs LJ, Payne RG, Kao EY, Alemany LB, Yaszemski MJ, Wu KK, and Mikos AG: The synthesis and characterization of a novel block copolymer consisting of poly (propylene fumarate) and poly (ethylene oxide), Materials Research Society, Spring 1995 Meeting, San Francisco, CA, April 19, 1995
- 41. Ingari JV, Smith DK, and Yaszemski MJ: The anatomic significance of magnetic resonance imaging findings in proximal femur fracture, Society of Air Force Clinical Surgeons 42<sup>nd</sup> Annual Meeting, Dayton, OH, April 25, 1995
- 42. Delanois R, Witkowski E, Pape H, Zimmer W, and Yaszemski MJ: Mechanical properties of Timetal, A novel alloy for total joint applications, Society of Air Force Clinical Surgeons 42<sup>nd</sup> Annual Meeting, Dayton, OH, April 26, 1995
- 43. Yaszemski MJ: Tissue engineering strategies to regenerate human bone, The Society of Air Force Clinical Surgeons 42<sup>nd</sup> Annual Meeting, Dayton, OH, April 26, 1995
- 44. Ishaug SL, Yaszemski MJ, Bizios R, Aufdemorte TB, and Mikos AG: Osteoblast migration on biodegradable poly (α-hydroxy esters), American Society of Mechanical Engineers Summer Bioengineering Conference, Beaver Creek, CO, June 29, 1995
- 45. Crane GM, Ishaug SL, Miller MJ, Yasko AW, Aufdemorte TB, Yaszemski MJ, and Mikos AG: Bone formation using porous poly (lactic-co-glycolic acid) seeded with stromal osteoblast cells, 1995 Annual Fall Meeting of the Biomedical Engineering Society, Boston, MA, October 6, 1995
- 46. Jen A, Yaszemski MJ, and Mikos AG: Three-dimensional *in vitro* polymer-matrix/cell model for bone formation, American Institute of Chemical Engineers 1995 Annual Meeting, Miami, FL, November 12-17, 1995
- 47. France J, Yaszemski M, Lauerman W, Cain J, Glover M, Coe J, Lawson K, and Topper S: A randomized, prospective study of lumbar fusion outcome with and without pedicle screw instrumentation, Society of Military Orthopaedic Surgeons 37<sup>th</sup> Annual Meeting, Vail, CO, December 6, 1995
- 48. Miller MJ, Goldberg DP, Yasko AW, Lemon JC, Satterfield W, Wake MC, Mikos AG, and Yaszemski MJ: Prefabricated bone flaps in sheep, Society of Military Orthopaedic Surgeons 37<sup>th</sup> Annual Meeting, Vail, CO, December 6, 1995

- 49. Jordan TF, Yaszemski MJ, and Sanders AE: Instrument related back pain in idiopathic scoliosis, Society of Military Orthopaedic Surgeons 37<sup>th</sup> Annual Meeting, Vail, CO, December 6, 1995
- 50. Delanois R, Witkowski, E, Pape H, Zimmer W, and Yaszemski MJ: Mechanical properties of timetal, A novel alloy for total joint applications, Society of Military Orthopaedic Surgeons 37<sup>th</sup> Annual Meeting, Vail, CO, December 6, 1995
- 51. Miller MJ, Goldberg DP, Yasko AW, Lemon JC, Satterfield W, Wake MC, Mikos AG, and Yaszemski MJ: An *in vivo* model for tissue engineered bone flaps, 11<sup>th</sup> Annual Meeting of the American Society of Reconstructive Microsurgery, Tucson, AZ, January 14-17, 1996
- 52. France J, Yaszemski MJ, Glover JM, Cain J, Topper S, Lauerman W: A randomized prospective study of lumbar fusion with and without transpedicular instrumentation, North American Spine Society Annual Meeting, Vancouver BC, Canada, October 22, 1996
- 53. Wong CL, Howard R, Yaszemski MJ, Howey T: Comparison of suture technique on gap formation in tendon attachment utilizing a suture anchor, Society of Military Orthopaedic Surgeons 38<sup>th</sup> Annual Meeting, San Diego, CA, November 19-23, 1996
- 54. Peter SJ, Nolley JA, Engel PS, Alemany LB, Miller MJ, Yaszemski MJ, and Mikos AG: Synthesis and characterization of a functionalized, unsaturated linear polyester, American Institute of Chemical Engineers Annual Meeting, Chicago, IL, November 15, 1996
- 55. Suggs LJ, Kao EY, Yaszemski MJ, and Mikos AG: The characterization of a poly (propylene fumarate) and poly (ethylene glycol) block copolymer and evaluation of the crosslinked material for use as a vascular implant, American Institute of Chemical Engineers Annual Meeting, Chicago, IL, November 15, 1996
- 56. Nolley JA, Peter SJ, Yasko AW, Yaszemski MJ, Mikos AG: Degradation study of a poly(propylene fumarate) based biodegradable bone cement, Tissue Engineering Society Inaugural Meeting, Orlando, FL, December 13, 1996
- 57. Wong CL, Howard R, Yaszemski MJ, Howey T: Comparison of suture technique on gap formation in tendon attachment utilizing a suture anchor, American Association for Hand Surgery Annual Meeting, Boca Raton, FL, January 8-11, 1997
- 58. Ishaug-Riley SL, Crane GM, Gurlek A, Miller MJ, Yaszemski MJ, Yasko AW, Mikos AG: Ectopic bone formation by marrow stromal osteoblast transplantation using poly (DL-lactic-Co-glycolic acid) foams implanted into the rat mesentery, Orthopedic Research Society 43<sup>rd</sup> Annual Meeting (poster), San Francisco, CA, February 9-13, 1997
- 59. Lauerman W, France J, Cain J, Yaszemski MJ, Glover JM: A randomized prospective study of lumbar fusion with and without transpedicular instrumentation, American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997
- 60. Peter SJ, Nolley JA, Kim DB, Widmer MS, Engel PS, Yasko AW, Yaszemski MJ, Mikos, AG: Curing characteristics and mechanical properties of a poly(propylene fumarate) based orthopaedic biomaterial, Orthopedic Research Society 43<sup>rd</sup> Annual Meeting, San Francisco, CA, February 16-19, 1997
- 61. France J, Yaszemski M, Lauerman W, Cain J, Glover J, Coe J, Lawson K, Topper S: A randomized prospective study of lumbar fusion with and without transpedicular instrumentation, American Academy of Orthopaedic Surgeons, Federation of Spine Associations, Specialty Day, San Francisco, CA, February 23, 1997

- 62. Mikos AG, Riley SL, Thomson RC, Crane GM, Gurlek A, Miller MJ, Yasko AW, Yaszemski MJ: Polymeric delivery systems for bone cells, Society for Biomaterials 23<sup>rd</sup> Annual Meeting, New Orleans, LA, April 30, 1997
- 63. Ishaug-Riley SL, Crane GM, Gurlek A, Miller MJ, Yaszemski MJ, Yasko AW, Mikos AG: Ectopic bone formation by marrow stromal osteoblast transplantation using poly (DL-lactic-co-glycolic acid) foams implanted into the rat mesentery, Society for Biomaterials 23<sup>rd</sup> Annual Meeting, New Orleans, LA, April 30, 1997
- 64. Suggs LJ, Kao EY, Krishnan RS, Patrick CW, Yaszemski MJ, and Mikos AG: Evaluation of a biodegradable block copolymer for use as a vascular implant, Society for Biomaterials 23<sup>rd</sup> Annual Meeting, New Orleans, LA, April 30, 1997
- 65. Peter SJ, Nolley JA, Kim DJ, Widmer MS, Engel PS, Yasko AW, Yaszemski MJ, Mikos AG: Curing characteristics and mechanical properties of a poly(propylene fumarate) based orthopaedic biomaterial, The American Society of Mechanical Engineers Bioartificial Tissue Symposium, Summer Bioengineering Conference, Sun River, OR, June 1997
- 66. Peter SJ, Miller MJ, Yasko AW, Yaszemski MJ, and Mikos AG: Polymer concepts regarding tissue engineering, Portland Bone Symposium, Portland, OR, August 7, 1997
- 67. Palmer C, Murray P, Snearly W, Yaszemski M: The mechanism of ulnar-sided perilunar instability of the wrist, Society of Military Orthopaedic Surgeons 39<sup>th</sup> Annual Meeting, Lake Placid, NY, October 8, 1997
- 68. Thomson R, Yaszemski MJ, Powers J, and Mikos AG: Hydroxyapatite fiber reinforced poly(α-hydroxy ester) foams for bone regeneration, Orthopedic Biomaterials Session, Topical Conference on Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering, Annual Meeting of the American Institute of Chemical Engineers, Los Angeles, CA, Nov. 19, 1997
- 69. Peter SJ, Yasko AW, Miller MJ, Yaszemski MJ, and Mikos AG: TGF-β induced osteoblastic behavior on a poly(propylene fumarate) based orthopaedic biomaterial, Orthopedic Biomaterials Session, Topical Conference on Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering, Annual Meeting of the American Institute of Chemical Engineers, Los Angeles, CA, Nov. 19, 1997
- 70. Payne RG, Sivaram S, Babensee J, Yaszemski MJ, Yasko AW, and Mikos AG: Marrow stromal osteoblast encapsulation and seeding onto a crosslinking biodegradable polymer, Materials and Fabrication Methods for Tissue Engineering Scaffolds Session, Topical Conference on Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering, Annual Meeting of the American Institute of Chemical Engineers, Los Angeles, CA, Nov. 17, 1997
- 71. Yaszemski MJ, Kim D, Peter SJ, Yasko AW, Miller MJ, and Mikos AG: TGF-β induced osteoblastic behavior on a poly(propylene fumarate) based orthopaedic biomaterial, Annual Meeting of the American Orthopaedic Association, Asheville, NC, (poster), June 3-5, 1998
- 72. Palmer C, Murray P, Snearly W, Yaszemski M: The mechanism of ulnar-sided perilunar instability of the wrist, Society of Air Force Clinical Surgeons 45<sup>th</sup> Annual Meeting, San Antonio, TX, April 4, 1998
- 73. Yaszemski MJ: Skeletal tissue engineering, 2<sup>nd</sup> Annual National Managed Health Care Council Meeting, Boston, MA, August 10, 1998

- 74. Palmer C, Murray P, Snearly W, Yaszemski MJ: The mechanism of ulnar-sided perilunar instability of the wrist, The American Society for Surgery of the Hand, Minneapolis, MN, September 15, 1998
- 75. Payne RG, Sivaram SA, Babensee JE, Yasko AW, Yaszemski MJ, and Mikos AG: Temporary encapsulation of rat marrow osteoblasts in gelatin microspheres (poster), Bi-Annual Meeting of the Tissue Engineering Society, Orlando, FL, December 4, 1998
- 76. Palmer C, Murray P, Snearly W, Yaszemski MJ: The mechanism of ulnar-sided perilunar instability of the wrist, The American Association for Surgery of the Hand, Waikoloa, HI, January 14, 1999
- 77. Suggs LJ, Yaszemski MJ, and Mikos AG: Development of poly(propylene fumarate-coethylene glycol): An injectable, biodegradable implant for cardiovascular applications, 218<sup>th</sup> Annual Meeting of the American Chemical Society, Anaheim, CA, March 22, 1999
- 78. Yaszemski MJ; Oldham JB, Porter DB, Hefferan TE, Currier BL, and Mikos AG: Biologic activity of rhBMP-2 following release from PLGA microspheres, 218<sup>th</sup> Annual Meeting of the American Chemical Society, Special Session for the ACS Award in Polymer Chemistry honoring Robert Langer, Anaheim, CA, March 22, 1999
- 79. Yaszemski MJ: Fiscal initiatives at academic medical centers in the managed care environment, Society of Air Force Clinical Surgeons 46<sup>th</sup> Annual Meeting, San Antonio, TX, March 31, 1999
- 80. He S-L, Yaszemski MJ, Yasko AW, and Mikos AG: Development of a biodegradable bone cement based on poly (propylene fumarate) and macromere, Society for Biomaterials 25<sup>th</sup> Annual Meeting, Providence, RI, April 29, 1999
- 81. Suggs LJ; Yaszemski MJ; and Mikos AG: Development of poly(propylene fumarate-coethylene glycol): An injectable, biodegradable cardiovascular implant, 218<sup>th</sup> Annual Meeting of the American Chemical Society, Special Session for the ACS Award in Polymer Chemistry honoring Robert Langer, Anaheim, CA, March 22, 1999
- 82. Porter DB, Oldham JB, Payne RG, An KN, Currier BL, Mikos AG, and Yaszemski MJ: Mechanical properties of a biodegradable bone regeneration scaffold, 1999 Summer Bioengineering Conference of the American Institute of Chemical Engineers, American Society of Mechanical Engineers, American Society of Civil Engineers, and the Institute of Electrical and Electronic Engineers, Big Sky, MT, June 20, 1999
- 83. Oldham JB, Porter DB, Hefferan TE, Currier BL, Mikos AG, and Yaszemski MJ: Biologic activity of rhBMP-2 following release from PLGA microspheres, 1999 Summer Bioengineering Conference of the American Institute of Chemical Engineers, American Society of Mechanical Engineers, American Society of Civil Engineers, and the Institute of Electrical and Electronic Engineers, Big Sky, MT, June 20, 1999
- 84. Oldham JB, Porter DB, Tan TS, Brisby H, Currier BL, Mikos AG, and Yaszemski MJ: Influence of changes in experimental parameters on size of PLGA microspheres, 1999 Summer Bioengineering Conference of the American Institute of Chemical Engineers, American Society of Mechanical Engineers, American Society of Civil Engineers, and the Institute of Electrical and Electronic Engineers, Big Sky, MT, June 20, 1999
- 85. Fuchs B, Yaszemski MJ, and Sim FH: Extended hemipelvectomy for sarcomas of the posterior pelvis, Musculoskeletal Tumor Society Annual Meeting, May 13, 2000
- 86. Zhu X, Lu L, Gill JS, Windebank AJ, and Yaszemski MJ: Controlled release of antisense oligonucleotides from biodegradable microparticles, Society for Neuroscience 30<sup>th</sup> Annual Meeting, New Orleans, LA, November 5, 2000

- 87. Christensen DM, Lynch J, Currier BL, and Yaszemski MJ: C1 anatomy and dimensions relative to lateral mass screw placement, Cervical Spine Research Society 28<sup>th</sup> Annual Meeting, Charleston, SC, November 30, 2000
- 88. Zhu X, Lu L, Currier BL, Windebank AJ, and Yaszemski MJ: Effects of PEG content on controlled release of antisense ODNs from PLGA/PEG microparticles, Society for Biomaterials 27<sup>th</sup> Annual Meeting, St. Paul, MN, April 26, 2001
- 89. He S-L, Ulrich J, Valenzuela RG, Zobitz M, An KN, Currier BL, Mikos AG, and Yaszemski MJ: Mechanical evaluation of biodegradable polymer-bone fiber composites during the degradation process, Society for Biomaterials 27<sup>th</sup> Annual Meeting, St. Paul, MN, April 27, 2001
- 90. Lu L, Pederson LG, Zhu X, Valenzuela RG, Currier BL, O'Driscoll SW, and Yaszemski MJ: Effects of dynamic fluid pressure on chondrocytes cultured in polymer scaffolds, Society for Biomaterials 27<sup>th</sup> Annual Meeting, St. Paul, MN, April 28, 2001
- 91. Kharas GB, Villaseñor G, Herrman J, Kharas K, Watson K, and Yaszemski MJ: Synthesis and characterization of fumarate copolyesters for biomedical composites, Society for Biomaterials 27<sup>th</sup> Annual Meeting (poster), St. Paul, MN, April 29, 2001
- 92. Yaszemski MJ: Musculoskeletal tissue engineering: Translation from the laboratory to the care of the patient, Scaffolding Materials for Bone Tissue Engineering Symposium, Society for Biomaterials 27<sup>th</sup> Annual Meeting, St. Paul, MN, April 29th, 2001
- 93. Todd LT, Yaszemski MJ, Currier BL, Fuchs BX, and Sim FH: Bowel and bladder function following sacral resection, Annual Meeting of the Musculoskeletal Tumor Society, Baltimore, MD, May 11, 2001
- 94. Yaszemski MJ, Currier BL, Fuchs BX, and Sim FH: En bloc spondylectomy for sarcomas of the mobile spine, Annual Meeting of the Musculoskeletal Tumor Society, Baltimore, MD, May 11, 2001
- 95. Zhu X, Lu L, Moore MJ, Currier BL, Windebank AJ, and Yaszemski MJ: Acidity of release medium strongly affects poly(DL-lactic-co-glycolic acid)/poly(ethylene glycol) microparticle degradation and oligonucleotide release kinetics, 2001 Annual Symposium of the Controlled Release Society, San Diego, California, June 24, 2001
- 96. Kharas GB, Villaseñor G, Herrman J, Mc Colough K, Passe LB, Scola III A, Watson K, and Yaszemski MJ: Fumarate based polyester for use in bioresorbable bone cement compositions. 221<sup>st</sup> ACS National Meeting (poster), Chicago, IL, August 27-31, 2001
- 97. Jimenez-Hamann MC, Attar A, Midha R, Tator C, Yaszemski MJ, and Shoichet M: In situ delivery of therapeutic agents for treatment of spinal cord injury, Society for Neuroscience 2001 Annual Meeting, San Diego, CA, November 14, 2001
- 98. Todd LT, Currier BL, Maus TP, Fisher D, and Yaszemski MJ: Anatomic relationship of the internal carotid artery to the anterior aspect of C1: A potential risk factor for screw fixation of the atlas, Cervical Spine Research Society 29<sup>th</sup> Annual Meeting, Monterey, CA, November 29- December 2, 2001
- 99. Christensen D M, Lynch J, Currier BL, and Yaszemski MJ: C1 anatomy and dimensions relative to lateral mass screw placement, Society of Military Orthopaedic Surgeons 43<sup>rd</sup> Annual Meeting (poster), Vail, CO, December 10-15, 2001
- 100. Burdick JA, Poshusta AK, Yaszemski MJ, and Anseth KS: *In vivo* photopolymerization of degradable polyanhydride networks in a tibia defect, Orthopaedic Research Society 48<sup>th</sup> Annual Meeting, Dallas, TX, February 10-13, 2002

- 101. Ghaleb AH, Brower MC, Wong GY, Huntoon MA, Ross SR, and Yaszemski MJ: Quadratus femoris muscle injection for chronic left hip and buttock pain, Midwest Anesthesia Resident's Conference, Omaha, NE, March 8-10, 2002
- 102. Kempen DHR, Lu L, Zhu X, Currier BL, and Yaszemski MJ: Fabrication and characterization of poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres, Society for Biomaterials 28<sup>th</sup> Annual Meeting (poster), Tampa, FL, April 24-27, 2002
- 103. Aslam MA, Kim CW, Murikipudi S, Chu P, Currier BL, Lu L, and Yaszemski MJ: Fabrication and characterization of porous, injectable poly(propylene fumarate)-based scaffolds via a foaming method (poster), Society for Biomaterials 28<sup>th</sup> Annual Meeting, Tampa, FL, April 24-27, 2002
- 104. Zhu X, Lu L, Liu N, Chu P, Currier BL, and Yaszemski MJ: Mechanical properties of biodegradable poly(propylene fumarate)/bone fiber composites, Society for Biomaterials 28<sup>th</sup> Annual Meeting, Tampa, FL, April 27, 2002
- 105. Moore MJ, Rowley KL, Ritman EL, Aslam MA, Chu P, Currier BL, Lu L, and Yaszemski MJ: Quantitative 3-D microstructure analysis of biodegradable porous polymeric scaffolds with X-ray micro computed tomography, Society for Biomaterials 28<sup>th</sup> Annual Meeting, Tampa, FL, April 27, 2002
- 106. Kempen, DHR, Lu L, Zhu X, Currier BL, and Yaszemski MJ: Controlled delivery of a model drug from poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres, Society for Biomaterials 28<sup>th</sup> Annual Meeting, Tampa, FL, April 27, 2002
- 107. Friedman JA, Windebank AJ, Lewellyn EB, Moore MJ, and Yaszemski MJ: A Schwann cell-seeded, biodegradable polymer implant for promoting axon regeneration following spinal cord injury (poster), American Neurological Association 127<sup>th</sup> Annual Meeting, New York, NY, October 13-16, 2002
- 108. Ghaleb AH, Brower MC, Wong GY, Huntoon MA, Ross SR, and Yaszemski MJ: Quadratus femoris muscle injection for chronic left hip/buttock pain, Annual Meeting of the American Society of Anesthesiologists, October, 2002
- 109. Friedman JA, Moore MJ, Yaszemski MJ, Lewellyn EB, Spinner RJ, Currier BL, and Windebank AJ: Biodegradable polymer implants to promote axonal regeneration following spinal cord injury (poster), Society for Neuroscience 32<sup>nd</sup> Annual Meeting, Orlando, FL, November 3, 2002
- 110. Currier BL, Maus TP, Larson DR, and Yaszemski MJ: Relationship of the internal carotid artery to the anterior aspect of C1: Implications for C1-2 transarticular and C1 lateral mass screw fixation, Cervical Spine Research Society 30<sup>th</sup> Annual Meeting, Miami, FL, December 5-7, 2002
- 111. Windebank AJ, Friedman JA, Lewellyn E, Ameenuddin S, Marin-Padilla M, Currier BL, Yaszemski MJ, and Moore MJ: Axonal regeneration into biodegradable polymer implants after spinal cord injury in rats, American Academy of Neurology Annual Meeting, Honolulu, HI, March 31, 2003
- 112. Moore MJ, Friedman JA, Lewellyn EB, Windebank AJ, Currier BL, Lu L, and Yaszemski MJ: A biodegradable scaffold for localized cell transplantation in the injured spinal cord, Society for Biomaterials 29<sup>th</sup> Annual Meeting, Reno, NV, May 3, 2003
- 113. Moore MJ, Friedman JA, Windebank AJ, Currier BL, Lu L, and Yaszemski MJ: Release of chondroitinase ABC from PLGA microparticles, Society for Biomaterials 29<sup>th</sup> Annual Meeting, Reno, NV, May 2, 2003

- 114. Argadine HM, Jabbari E, Talac R, Caro W, Lu L, Currier BL, and Yaszemski MJ: The assessment of interconnectivity of tissue engineering scaffolds using hydraulic permeability (poster), Society for Biomaterials 29<sup>th</sup> Annual Meeting, Reno, NV, April 30-May 3, 2003
- 115. Friedman JA, Moore MJ, Yaszemski MJ, Lewellyn EB, Knight AM, Spinner RJ, Currier BL, and Windebank AJ: A biodegradable polymer implant loaded with schwann cells for surgical repair of the injured spinal cord: Device engineering and feasibility (poster), Annual Meeting of the American Association of Neurological Surgeons, April 26 May 1, 2003
- 116. Friedmann JA, Lewellyn EB, Ameenuddin S, Marin-Padilla M, Gross L, Small AJ, Knight AM, Schermerhorn TC, Moore MJ, Jabbari E, Yaszemski MJ, and Windebank AJ: Schwann cell seeded biodegradable polymer implants promote axonal regeneration in spinal cord, Peripheral Nerve Society, Banff, Canada, July 26-30, 2003
- 117. Jabbari E, Gruetzmacher JA, Lu L, Currier BL, and Yaszemski MJ: Synthesis and characterization of nano-hydroxyapatite grafted with biodegradable and crosslinkable fumaric-adipic acid macromere, Polymer Chemistry in Nanotechnology Symposium, Division of Polymer Chemistry, 226<sup>th</sup> American Chemical Society National Meeting, New York, NY, September 7, 2003
- 118. Jabbari E, Gruetzmacher JA, Lu L, Currier BL, and Yaszemski MJ: Development of a novel, self-crosslinkable poly(caprolactone fumarate) as a biodegradable and injectable scaffold for bone tissue engineering, 25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (poster), Cancun, Mexico, September 17-21, 2003
- 119. Yaszemski MJ, Currier BL, Maus TP, Larson DR: Relationship of the internal carotid artery to the anterior aspect of the C1 vertebra: Implications for C1-2 transarticular and C1 lateral mass screw fixation, Scoliosis Research Society 38<sup>th</sup> Annual Meeting (electronic poster #53, pg 279), Quebec City, Quebec, Canada, September 9-13, 2003
- 120. Jabbari E, and Yaszemski MJ: Development of a novel degradable, injectable, and self-crosslinkable composite biomaterial for orthopedic applications, 11<sup>th</sup> Annual National Science Foundation Materials Chemistry Workshop, Tempe, AZ, October 18, 2003
- 121. Friedmann JA, Lewellyn EB, Moore MJ, Schermerhorn TC, Knight AM, Currier BL, Yaszemski MJ, Ameenuddin S, and Windebank AJ: Robust axon regeneration following surgical repair of the injured spinal cord with a novel biodegradable polymer implant, Congress of Neurological Surgeons Annual Meeting, Denver, CO, October, 2003
- 122. Ameenuddin S, Gross L, Krych A, Llewelyn E, Chen B, Marin-Padilla M, Moore M, Knight A, Friedman J, Spinner RJ, Currier BL, Yaszemski MJ, and Windebank AJ: The role of minocycline in promoting axonal regeneration in biodegradable polymer implants seeded with Schwann cells in the rat spinal cord (program #415.15), Society for Neuroscience, 33<sup>rd</sup> Annual Meeting, New Orleans, LA, November 8-12, 2003
- 123. Knight AM, Sabharwal P, Moore MJ, Mistry A, Yaszemski MJ, and Windebank AJ: A synthetic 44 amino acid pigment epithelium derived factor (PEDF) derivative enhances neurite outgrowth and protects dorsal root ganglion (DRG) neurons from both cisplatin toxicity and NGF withdrawal (poster), Society for Neuroscience 33rd Annual Meeting, New Orleans, LA, Nov 8-12, 2003
- 124. Jabbari E, Gruetzmacher JA, Lu L, Currier BL, and Yaszemski MJ: A novel biocompatible and self-crosslinkable poly(caprolactone fumarate) copolymer with

- controlled degradation as a scaffold for guided bone regeneration (poster), Annual meeting of the American Institute of Chemical Engineers, San Francisco, CA, November 18, 2003
- 125. Florschutz AV, Jabbari E, Liu N, Pedersen LG, Kempen DHR, Lu L, Currier BL, and Yaszemski MJ: Release kinetics of recombinant human bone morphogenetic protein-2 (rhBMP-2) from biodegradable poly(DL-lactic-co-glycolic acid) microspheres, Annual meeting of the American Institute of Chemical Engineers, San Francisco, CA, November 21, 2003
- 126. Moore MJ, Friedman JA, Lewellyn EB, Ameenuddin S, Windebank AJ, Jabbari E, Lu L, Currier BL, and Yaszemski MJ: Multi-channel scaffolds to promote axon regeneration in the spinal cord, Tissue Engineering Society International 6th Annual International Conference, Orlando, FL, December 11, 2003
- 127. Jabbari E, Gruetzmacher JA, Moore MJ, Lu L, Talac R, Currier BL, and Yaszemski MJ: Development of a novel injectable and in situ crosslinkable scaffold for guided bone regeneration based on hydrogels as the porogen (poster), Tissue Engineering Society International 6th Annual International Conference, Orlando, FL, December 10-13, 2003
- 128. Walker MP, Yaszemski MJ, Chen F, and Currier BL: Biomechanical comparison of unicortical and bicortical C1 lateral mass screw fixation, Cervical Spine Research Society, 31<sup>st</sup> Annual Meeting, Scottsdale, AZ, December 13, 2003
- 129. Ameenuddin S, Knight AM, Chen B, Moore MJ, Krych AJ, Olson HE, Galvin KE, Sabharwal P, Gross L, Spinner RJ, Yaszemski MJ, Currier BL, and Windebank AJ: Biodegradable polymer implants as a platform for optimizing spinal cord injury repair strategies, 10<sup>th</sup> International Symposium on Neural Regeneration, Pacific Grove, CA, December 10-14, 2003
- 130. Yaszemski MJ, Jabbari E, Gruetzmacher J, Lu L, and Currier BL: Development of a novel, injectable biomaterial for bone tissue engineering, Society of Military Orthopaedic Surgeons 45<sup>th</sup> Annual Meeting (poster), Honolulu, HI, December 15-20, 2003
- 131. Yaszemski MJ, Walker MP, Chen Q, and Currier BL: Anatomic relationship of the internal carotid artery to the C1 vertebra: a case report of cervical reconstruction for chordoma and pilot study to assess the risk of screw fixation of the atlas, Society of Military Orthopaedic Surgeons 45<sup>th</sup> Annual Meeting, Honolulu, HI, December 19, 2003
- 132. Rajagopalan S, Yaszemski MJ, and Robb R: Evaluation of thresholding techniques for segmenting scaffold images in tissue engineering (poster), Medical Imaging 2004, Symposium of the International Society for Optical Engineering, San Diego, CA, February 17, 2004
- 133. Fuchs B, Yaszemski MJ, Inwards C, and Sim FH: Operative management of sacrococcygeal chordomas, American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 12, 2004
- 134. Mardones RM, Reinholz GG, Fitzsimmons JS, Yaszemski MJ, Lewallen DL, and O'Driscoll SW: Development of a biologic prosthetic composite for cartilage repair (poster), Orthopedic Research Society 50<sup>th</sup> Annual Meeting, San Francisco, CA, March 7-10, 2004
- 135. Windebank AJ, Ameenuddin S, Knight A, Moore M, Jabbari E, and Yaszemski MJ: Cell-seeded, biodegradable polymer implants in the quantitative assessment of regeneration after spinal cord injury in rats, American Academy of Neurology 56<sup>th</sup> Annual Meeting, 62:A540, San Francisco, CA, April 24 May 1, 2004

- 136. Jabbari E, Florschutz AV, Pedersen LG, Liu N, Lu L, Currier BL, and Yaszemski MJ: Release kinetics of rhBMP-2 from PLGA microspheres embedded in a porous poly(propylene fumarate) scaffold, World Biomaterials Congress, Sydney, Australia, May 17-21, 2004
- 137. Jabbari E, Ceridon ML, Hefferan TE, Pedersen LG, Lu L, Currier BL, and Yaszemski MJ: Evaluation of the cytocompatibility of a novel poly(caprolactone fumarate) injectable scaffold with human fetal osteoblast cells (poster), World Biomaterials Congress, Sydney, Australia, May 17-21, 2004
- 138. Jabbari E, Lee KW, Ellison AC, Moore MJ, Tesk JA, and Yaszemski MJ: Fabrication of shape specific biodegradable porous polymeric scaffolds with controlled interconnectivity by solid free-form microprinting (poster), World Biomaterials Congress, Sydney, Australia, May 17-21, 2004
- 139. Moore MJ, Jabbari E, Ritman EL, Lu L, Currier BL, and Yaszemski MJ: Investigating scaffold interconnectivity with micro-CT and image analysis (poster), World Biomaterials Congress, Sydney, Australia, May 17-21, 2004
- 140. Jabbari E, Gruetzmacher JA, Lu L, Currier BL, Yaszemski MJ: Effect of macromer grafted nano-hydroxyapatite on compressive mechanical properties of poly (propylene fumarate) scaffolds (poster), 7<sup>th</sup> World Biomaterials Congress, Sydney, Australia, May 17-21, 2004
- 141. Mardones RM, Reinholz GG, Fitzsimmons JS, Zobitz ME, An KN, Yaszemski MJ, Lewallen DL, and O'Driscoll SW: Development of a biosynthetic prosthesis composite for cartilage repair, 5<sup>th</sup> International Cartilage Repair Society Meeting, May, 2004
- 142. Sim FH, Fuchs B, Currier BL, and Yaszemski MJ: Spinopelvic reconstruction after sacropelvic resection for tumors, Annual Meeting of the Musculoskeletal Tumor Society, Long Beach, CA, July 23, 2004
- 143. Olson H, Ameenuddin S, Gross L, Vaishya S, Galvin K, Voss J, Currier BL, Spinner RJ, Marsh WR, Yaszemski MJ, and Windebank AJ: Quantitative comparison of axonal regeneration following spinal cord injury with transplantation of neural stem cells or schwann cells in a biodegradable polymer scaffold (poster #MS-3), American Neurological Association 129<sup>th</sup> Annual Meeting, Toronto, Ontario, Canada, October 3-6, 2004
- 144. Chen B, Mantilla CB, Miller SM, Gross L, Yaszemski MJ, and Windebank AJ:
  Optimizing conditions for axonal tracing with DiI and DiO in fixed rat spinal cords
  (poster #107.1), Society for Neuroscience 34<sup>th</sup> Annual Meeting, San Diego, CA, October
  23, 2004
- 145. Vaishya S, Currier BL, Marsh WR, Spinner RJ, Yaszemski MJ, Ameenuddin S, and Windebank AJ: Does hydrogel immersion and/or rigid spine fixation improve the stability of a polymer scaffold implanted in the spinal cord after transaction (poster #106.4)? Society for Neuroscience 34<sup>th</sup> Annual Meeting, San Diego, CA, October 23, 2004
- 146. Knight AM, Moore MJ, Sabharwal P, Yaszemski MJ, and Windebank AJ: A synthetic peptide released from a biodegradable spinal cord scaffold protects neurons and promotes axonal growth (poster #106.3), Society for Neuroscience 34<sup>th</sup> Annual Meeting, San Diego, CA, October 23, 2004
- 147. Ameenuddin S, Vaishya S, Chen B, Spinner RJ, Currier BL, Windebank AJ, and Yaszemski MJ: Restitution of spinal dura and axonal regeneration in biodegradable

- implants in transected rat spinal cord (poster #106.2), Society for Neuroscience 34<sup>th</sup> Annual Meeting, San Diego, CA, October 23, 2004
- 148. Dunkers J, Chiang MYM, Wang XF, Jabbari E, Yaszemski MJ, Dean D, Cooke M, Wang F, Tesk J, Regnault W, Kaplan D: Reference scaffolds for characterization of porosity (poster), Society for Biomaterials Meeting on Tissue Engineering Scaffolds, Philadelphia, Oct. 2004
- 149. Jabbari E, Florschutz AV, Lu L, Liu N, Pedersen LG, Kempen DHR. Currier BL, and Yaszemski MJ: PLGA microspheres embedded in a porous biodegradable scaffold as a delivery vehicle for sustained release of recombinant human bone morphogenetic protein-2 (rhBMP-2), American Institute of Chemical Engineers 2004 Annual Meeting, Austin, TX, November 9, 2004
- 150. Lee KW, Jabbari E, Dunkers J, Chaing MY, Tesk JA, Lu L, Currier BL, and Yaszemski MJ: Permeability of polymeric scaffolds with defined pore micro-architecture and interconnectivity fabricated by solid free-form microprinting, American Institute of Chemical Engineers 2004 Annual Meeting, Austin, TX, November 11, 2004
- 151. Jabbari E, Hefferan TE, Lu L, Pedersen LG, Currier BL, and Yaszemski MJ: *In vitro* migration and proliferation of human osteoblasts in injectable in situ crosslinkable poly(caprolactone fumarate) scaffolds, American Institute of Chemical Engineers 2004 Annual Meeting, Austin, TX, November 9, 2004
- 152. Jabbari E, Lu L, Gruetzmacher JA, Ameenuddin S, de Ruiter GC, Moore MJ, Currier BL, Spinner RJ, Windebank AJ, and Yaszemski MJ: Material properties and biocompatibility of self-crosslinkable poly(caprolactone fumarate) copolymer as a scaffold for guided tissue regeneration, American Institute of Chemical Engineers 2004 Annual Meeting, Austin, TX, November 12, 2004
- 153. Cyr SJ, Currier BL, Foy A, Chen Q, Larson DR, Yaszemski MJ, and An KN: Fixation strength of unicortical versus bicortical C1-C2 transarticular screws, Cervical Spine Research Society, 33<sup>rd</sup> Annual Meeting, San Diego, CA, December 1-3, 2005
- 154. Mardones RM, Reinholz GG, Fitzsimmons JS, Zobitz ME, An KN, Lewallen DG, Yaszemski MJ, and O'Driscoll SD: Biomechanical properties of a biologic prosthetic composite for cartilage repair, 51<sup>st</sup> Annual Meeting of the Orthopaedic Research Society, Washington, DC, February 2005
- 155. de Ruiter GCW, Knight AM, Moore MJ, Liang E, Gorgyi S, Lu L, Jabbari E, Wang S, Currier BL, Marsh WR, Yaszemski MJ, Spinner RJ, and Windebank AJ: Biodegradable Polymer Scaffolds for Spinal Cord Regeneration: I, Optimizing Characteristics for Biocompatibility (poster), Annual Meeting of the American Academy of Neurology, Washington, DC, April 14, 2005
- 156. Windebank AJ, Vaishya S, Schiefer TK, Currier BL, Olson HE, Chen B, Ameenuddin S, Gross L, de Ruiter GC, Macura SI, Mishra PK, Marsh WR, Spinner RJ, and Yaszemski MJ: Biodegradable polymer scaffolds for spinal cord regeneration: II, Optimizing Scaffold Stability To Promote Regeneration (poster #06.045), Annual Meeting of the American Academy of Neurology, Washington, DC, April 14, 2005
- 157. Liang ET, de Ruiter GCW, Moore MJ, Wang S, Lu L, Jabbari E, Malessy MJA, Spinner RJ, Currier BL, Windebank AJ, and Yaszemski MJ: A novel method to investigate permeability of biodegradable nerve tubes (poster), 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005

- 158. de Ruiter GCW, Moore MJ, Jabbari E, Wang S, Liang ET, Onyenehoe I, Lu L, Sorenson EJ, Malessy MJA, Spinner RJ, Currier BL, Yaszemski MJ, and Windebank AJ: Important characteristics of biodegradable tubes for clinical nerve repair: The influence of structure and choice of biomaterial, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 159. Rajagopalan S, Lu L, Robb R, and Yaszemski MJ: Fabrication and mechanical characterization of biomorphic porous tissue engineering scaffolds with triply periodic minimal surface geometry, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 160. Rajagopalan S, Lu L, Robb RA, and Yaszemski MJ: Rapid prototyping of porous tissue engineering scaffolds with curved partitions and optimal porosity-strength characteristics, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 161. Rajagopalan S, Moore MJ, Lu L, Yaszemski MJ, and Robb RA: Fast automatic and robust selection of optimal techniques for thresholding volumetric images of tissue engineering scaffolds, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 162. Rajagopalan S, Lu L, Yaszemski MJ, and Robb RA: Image-based metrology of porous tissue engineering scaffolds by image foresting transformation, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- Wang S, Lu L, Gruetzmacher JA, Currier BL, and Yaszemski MJ: Synthesis and characterization of a biodegradable block copolymer consisting of poly(propylene fumarate) and Poly(ε-caprolactone), 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 164. Dadsetan M, Chung HW, Lu L, Reinholz GG, and Yaszemski MJ: Crosslinking density modulates chondrocyte adhesion and proliferation on photocrosslinked oligo(poly[ethylene glycol] fumarate) hydrogels, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 165. Wang S, Lu L, Gruetzmacher JA, Currier BL, and Yaszemski MJ: Self- and photocrosslinkable poly(ε-caprolactone fumarate), 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 166. Wang S, Lu L, Gruetzmacher JA, Currier BL, and Yaszemski MJ: Poly(propylene fumarate): molecular weight dependence of physical properties, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 167. Wang S, Lu L, Gruetzmacher JA, Currier BL, and Yaszemski MJ: Crosslinking characteristics of the blends of poly(propylene fumarate) and poly(caprolactone fumarate), 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 168. Issa AN, Knight AM, Georgi S, Wang SF, Lu L, Yaszemski MJ, and Windebank AJ: Neuronal cell attachment to biosynthetic materials, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 169. Hesse E, Hefferan TE, Lu L, Currier BL, and Yaszemski MJ: Collagen hydrogel promotes rMSC migration and osteogenic differentiation, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 170. Perry A, Mahar A, Massie J, Lu L, Yaszemski MJ, Garfin SR, and Kim CW: Development and biomechanical evaluation of an injectable radiopaque polypropylene

- fumarate bone cement for kyphoplasty, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 171. Moore MJ, Knight AM, Lin CC, Issa A, Lu L, Currier BL, Windebank AJ, and Yaszemski MJ: Sustained delivery of a neuroprotective agent from multiple-channel scaffolds for spinal cord application, 30<sup>th</sup> Annual Meeting of the Society for Biomaterials, Memphis, TN, April 27-30, 2005
- 172. Knight AM, Georgi S, Issa A, de Ruiter G, Yaszemski MJ, and Windebank AJ: Peptide attachment to biodegradable polymers for axonal guidance in spinal cord injury, Annual Meeting of the International Society for Neurochemistry, 2005
- 173. Hugate RR, Phimosarnti R, Dickey ID, Yaszemski MJ, and Sim FH: The biomechanical consequences of high transverse hemi-sacrectomy: When is reconstruction necessary? Annual Meeting of the Musculoskeletal Tumor Society, June, 2005
- 174. Dadsetan M, Chung HW, Lu L, O'Driscoll SW, and Yaszemski MJ: Photocrosslinked oligo(poly(ethylene glycol) fumarate) hydrogels for chondrocyte delivery (poster), 32nd Annual Meeting and Exposition of the Controlled Release Society, Miami Beach, Florida, June 18-22, 2005
- de Ruiter GCW, Moore MJ, Wang S, Malessy MMJA, Spinner RJ, Sorenson EJ, Dyck PJ, Currier BL, Yaszemski MJ, and Windebank AJ: On the use of biodegradable multichannel conduits for peripheral nerve repair, 2005 Meeting of the Peripheral Nerve Society, Tuscany, Italy, July 9-13, 2005
- 176. Heijink A, Rouse MS, Lewallen DG, Yaszemski MJ, Patel R, and Hanssen AD: Compatibility of vancomycin with Osteo-Set, DBX-putty, Collagraft and polymethylmethacrylate, Annual Meeting of the Musculoskeletal Infection Society, Snowmass, Colorado, August 5-6, 2005
- 177. Yaszemski MJ: Air Mobility Command contributions to joint operations, Association of Military Surgeons of the United States (AMSUS) Annual Meeting, Nashville, TN, October 31, 2005
- 178. Chen BK, Gross L, Ameenuddin S, Koch A, Yaszemski MJ, Currier BL, Spinner RJ, Marsh WR, and Windebank AJ: Fast blue tracing demonstrates that axons from rostral and caudal neurons grow through biodegradable scaffolds in transected rat spinal cord (program #839.3), Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2005
- 179. Hefferan TE, Jabbari E, Mardones R, Florschutz A, Lu L, Currier BL, and Yaszemski MJ: rhBMP-2 enhances bone formation in a biodegradable scaffold (poster #SA018), Annual Meeting of the Society for Bone and Mineral Research, 2005
- 180. Maran A, Shogren KL, Zhang M, Yaszemski MJ, Turner RT: Evidence that interferon signaling is required for 2-ME-mediated osteosarcoma cell death (poster #SU097), Annual Meeting of the Society for Bone and Mineral Research, 2005
- 181. Ameenuddin S, Dinca E, Endo T, Mishra PK, Macura SI, Hanson DP, Gross L, Koch A, Currier BL, Spinner RJ, Marsh WR, Yaszemski MJ, and Windebank AJ: Quantitative analysis of spinal cord contusion injury and locomotor recovery in rats with diffusion weighted MRI (program #783.15), Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2005
- 182. de Ruiter GCW, Spinner RJ, Currier BL, Koch A, Malessy MJA, Yaszemski MJ, Kaufman KR, Windebank AJ: 2-D video motion analysis of ankle angle for evaluation of

- functional recovery in the rat sciatic nerve model (program #29.20), Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2005
- 183. Windebank AJ, Ameenuddin S, Gross L, Koch A, Vaishya S, Currier BL, Spinner RJ, Marsh WR, and Yaszemski MJ: Implanted green fluorescent Schwann cells survive long-term in biodegradable polymer implants after spinal cord injury (program #839.4), Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2005
- de Ruiter GCW, Knight AM, Moore MJ, Liang E, Gorgyi S, Lu L, Jabbari E, Wang S, Currier BL, Marsh WR, Yaszemski MJ, Spinner RJ, and Windebank AJ: Biodegradable polymer scaffolds for spinal cord regeneration: I, optimizing characteristics for biocompatiblity (poster #06.058), Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2005
- 185. Windebank AJ, Vaishya S, Schiefer T, Currier BL, Olson H, Chen B, Ameenuddin S, Gross L, de Ruiter GCW, Macura S, Mishra P, Marsh WR, Spinner RJ, and Yaszemski MJ: Biodegradable polymer scaffolds for spinal cord regeneration: II, optimizing scaffold stability to promote regeneration (P06.045), Annual Meeting of the Society for Neuroscience, Washington, DC, November 12-16, 2005
- 186. Kempen DHR, Lu L, Kruyt MC, Wilson CE, Jabbari E, Creemers LB, Currier BL, Yaszemski MJ, Dhert WJA: Ectopic bone formation by rhBMP-2 delivery from biodegradable microspheres embedded in an injectable PPF scaffold, Aegean Conferences, 2<sup>nd</sup> International Conference on Tissue Engineering, Crete, Greece, May 25, 2005
- 187. Florschutz AV, Itala A, Hefferan TE, Vathana T, Leerapun T, Bishop AT, Patel R, Kaufman KR, Yaszemski MJ, and Lewallen DG: Osseointegrated tantalum implants for fixation of limb prostheses (paper #0951), 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 188. Florschutz AV, Itala A, Hefferan TE, Lewallen DG, and Yaszemski MJ: *In vitro* release of cisplatin from biodegradable poly(DL-lactic-co-glycolic acid) microsphere vehicles (paper #0928), 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 189. Hefferan TE, Florschutz AV, Mardones RM, Jabbari E, Lu L, Maran A, Currier BL, Yaszemski MJ: rh-BMP-2 enhances bone formation in a biodegradable scaffold (paper #0232), 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 190. Maran A, Dadsetan M, Shogren KL, Lu L, Hefferan TE, Yaszemski, MJ: A novel bioassay for evaluating estrogenic effects (paper #1629), 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 191. Dadsetan M, Maran A, Shogren K, Hefferan T, Lu L, Yaszemski MJ: DNA delivery into bone tumor cells using hydrogel encapsulation (paper #0895), 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 192. Huddleston PM, Nguyen G, Piper KE, Jacobson MJ, Dekutoski MB, Yaszemski MJ, Currier BL, Osmon DR, and Patel R: Detection of biofilm bacteria on spinal implants Preliminary report (poster), 73<sup>rd</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, Chicago, IL, March 22-26, 2006
- 193. Mrosek EH, Chung HW, Schageman JC, Reinholz GG, Fitzsimmons JS, Stone JJ, Amrami KK, Felmlee JP, Yaszemski MJ, and O'Driscoll SW: Porous Tantalum and

- poly-ε-caprolactone (PCL) scaffolds for the repair of osteochondral defects in a rabbit model, 6th ICRS Symposium, San Diego, CA, January 9-11, 2006
- 194. Wang S, Lu L, and Yaszemski MJ: Polypropylene fumarate: one example to study the finite length effect on glass transition temperature and polymer dynamics (poster), Annual Meeting of the American Chemical Society, Atlanta, GA, March 26-30, 2006
- 195. Wang S, Lu L, Gruetzmacher JA, Currier BL, and Yaszemski MJ: Triblock copolymer polycaprolactone-polypropylene fumarate-polycaprolactone, Annual Meeting of the American Chemical Society, Atlanta, GA, March 26, 2006
- 196. Dadsetan M, Rajagopalan S, Hefferan TE, Lu L, and Yaszemski MJ: Effect of Hydrogel Porosity on Marrow Stromal Cell Phenotypic Expression (oral presentation #128, CD #ISSN1526-7547), 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 28, 2006
- 197. Lee K-W, Fox BC, Wang S, Gruetzmacher JA, Lu L, and Yaszemski MJ: Effects of UV laser parameters on fabricating three-dimensional poly(propylene fumarate) scaffolds with controlled macropores using stereolithography (poster #280, CD #ISSN1526-7547), 31st Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- 198. Wang S, de Ruiter GCW, Knight AM, Lu L, Spinner RJ, Currier BL, Windebank AJ, and Yaszemski MJ: Poly(propylene fumarate)-co-poly (ε-caprolactone) tube for guided nerve regeneration (poster #418, CD #ISSN1526-7547), 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- 199. Onyeneho I, de Ruiter GCW, Wang S, Lu L, Gruetzmacher JA, Spinner RJ, Currier BL, Windebank AJ, and Yaszemski MJ: Characterization of single lumen and multi-channel poly(caprolactone-fumarate) (PCLF) conduits for experimental nerve and spinal cord repair (poster #414, CD #ISSN1526-7547), 31st Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- 200. Wang S, Kempen D, Lu L, Gruetzmacher JA, Hefferan T, Currier BL, and Yaszemski MJ: Nanocomposite of poly(propylene fumarate) with crosslinkable hydroxyapatite (poster #534, CD #ISSN1526-7547), 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- 201. Wang S, Kempen D, Lu L, Gruetzmacher JA, Currier BL, and Yaszemski MJ: Controllable properties of photocrosslinked blends of poly(propylene fumarate) and poly(caprolactone-fumarate) (poster #535, CD #ISSN1526-7547), 31st Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- Wang S, Kempen D, Lu L, Hefferan T, Currier BL, and Yaszemski MJ: Biological evaluation of poly(propylene fumarate)-co-poly (ε-caprolactone) for bone tissue engineering (poster #556, CD #ISSN1526-7547), 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- 203. Rajagopalan S, Lu L, Robb RA, and Yaszemski MJ: Design and fabrication of biomorphic tissue engineering scaffolds using trigonometric templates, 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006
- 204. Rajagopalan S, Lu L, Robb RA, and Yaszemski MJ: Design and fabrication of durotaxic tissue engineering scaffolds, 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006
- 205. Kim J, Lu L, Currier BL, and Yaszemski MJ: Photopolymerizable elastomers for tissue engineering application based on poly(ethylene glycol) and diacid monomers (oral

- presentation, CD #ISSN1526-7547), 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 27, 2006
- 206. Wang S, Lu L, Gruetzmacher JA, Lee K-W, Currier BL, and Yaszemski MJ: Crosslinking characteristics and shape memory effect of a biodegradable multiblock copolymer poly(propylene fumarate)-co-poly(e-caprolactone) (poster #530, CD #ISSN1526-7547), 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 26-29, 2006
- 207. Wijdicks CA, Hefferan TE, Lu L, Gruetzmacher JA, Maran A, and Yaszemski MJ: Rat marrow stromal cell attachment on poly (propylene fumarate) and poly (ε caprolactone fumarate) two dimensional scaffolds with varying hydroxyapatite incorporation (poster #SA216; pg S157), 28<sup>th</sup> Annual American Society for Bone and Mineral Research Meeting, Philadelphia, PA, 15-19 September 2006
- 208. Wang M, Kim CW, Lu L, and Yaszemski MJ: A rat osteoporotic model for the evaluation of bioresorbable bone cements, North American Spine Society Annual Meeting, October, 2006
- 209. Kim J, Lee KW, Lu L, Currier BL, and Yaszemski MJ: Biodegradable and photopolymerizable hydrogels for tissue engineering application based on poly(ethylene glycol) and diacid monomers, American Institute of Chemical Engineers Annual Meeting, San Francisco, CA, November 14, 2006
- 210. Wang S, Lu L, and Yaszemski MJ: Polymer dynamics and rheology in designing and understanding polymeric biomaterials for tissue engineering applications, American Institute of Chemical Engineers Annual Meeting, San Francisco, CA, November 14, 2006
- 211. Wang S, Lu L, Kempen DH, deRuiter GCW, Nesbitt JJ, Gruetzmacher JA, Knight AM, Hefferan TE, Currier BL, Windebank AJ, and Yaszemski MJ: A novel injectable polymeric biomaterial poly(propylene fumarate-co-caprolactone) with controllable properties for bone and nerve regenerations, American Institute of Chemical Engineers Annual Meeting, San Francisco, CA, November 14, 2006
- 212. Mishra PK, Dadsetan M, Rajagopalan S, Hefferan TE, Yaszemski MJ, Slobodan I, and Macura S: Using magnetic resonance microscopy to assess the osteogenesis in porous hydrogels (0984-MM15-09), Materials Research Society Fall meeting, Boston, MA, November 27- December 1, 2006
- 213. Kempen DHR, Lu L, Hefferan TE, Creemers LB, Maran A, Classic K, Dhert WJA, and Yaszemski MJ: *In vitro* and *in vivo* bioactivity of BMP-2 released from different carriers (paper #254), 53<sup>rd</sup> Annual Meeting of the Orthopaedic Research Society, February 13, 2007
- 214. Raposo JM, Khan FA, Eastlack RK, Yaszemski MJ, and Lewallen DG: Dislocation following total hip arthroplasty in patients with spinal deformity, American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, March 2007
- 215. Florschutz AV, Gee JE, Eastlack R, Huddleston PM, and Yaszemski MJ: Experimental scoliosis using vertebral body implanted magnets (poster), Scoliosis Research Society Eastern European Regional Course, Budapest, Hungary, June 14-16, 2007
- 216. Wang S, Kempen DH, Lee K-W, Yaszemski MJ, and Lu L: Novel polymers and nanocomposites as injectable bone tissue engineering materials (oral presentation #35, CD), Society for Biomaterials 32<sup>nd</sup> Annual Meeting, Chicago, IL, April 19, 2007

- 217. Dadsetan M, Knight AM, Vallejo C, Lu L, Windebank AJ and Yaszemski MJ: Stimulation of neurite outgrowth using a positively charged hydrogel (poster #317, CD), Society for Biomaterials 2007 Annual Meeting, Chicago, IL, April 18-21, 2007
- 218. Szatkowski JP, Dadsetan M, Lu L, and Yaszemski MJ: Effect of hydrogel charge on marrow stromal cell chondrogenic phenotypic expression (poster # 712, CD), Society for Biomaterials 2007 Annual Meeting, Chicago, IL, April 18-21, 2007
- 219. Dadsetan M, Knight AM, Vallejo C, Mirzadeh H, Lu L, Windebank AJ, and Yaszemski MJ: Charge modification of hydrogels for nerve regeneration, Materials Research Society Spring 2007 National Meeting
- 220. Szatkowski JP, Shogren KL, Heijink A, Benedikt M, Hefferan TE, Yaszemski MJ, and Maran A: The role of Interferon-regulated proteins in chondrocyte regulation, Minnesota Orthopaedic Society Annual Meeting, Minneapolis, MN, May 11, 2007
- 221. Dadsetan M, Knight AM, Arcaute-Cantu K, Brophy C, Mirzadeh H, Wicker RB, Windebank AJ, and Yaszemski MJ: Characterization of charged hydrogels for nerve regeneration (oral presentation), 34<sup>th</sup> Annual Meeting of the Controlled Release Society, Long Beach, CA, July 7-11, 2007
- 222. Brophy C, Dadsetan M, Yaszemski MJ, and Maran A: Prolonged release of 2-methoxyestradiol from hydrogels (poster), 34<sup>th</sup> Annual Meeting of the Controlled Release Society, Long Beach, CA, July 7-11, 2007
- 223. Knight AM, Dadsetan M, Wang S, Nesbitt JJ, Yaszemski MJ, Windebank AJ: Development and selection of biomaterials for artificial nerve tubes (poster), *J Peripheral Nervous System* July 12(Suppl 1): 45, 2007
- 224. Virk A, Yaszemski MJ, Vo D, Kalra M: Coxiella burnetti (Q fever) multilevel disk space infection (DSI), epidural abscess and vertebral osteomyelitis (VO) secondary to contiguous spread from infected abdominal aortic graft and mycotic aneurysm, Musculoskeletal Infection Society 17<sup>th</sup> Annual Open Scientific Meeting, San Diego, CA, August 10-11, 2007
- 225. Benedikt M, Szatkowski JP, Shogren KL, Sarkar G, Yaszemski MJ: Anti-tumor actions of 2-methoxyestradiol is accompanied by an increase in osteoprotegrin expression in osteosarcoma cells (poster #M306, J Bone and Min Res, 22, supl 1: S190, 2007), The American Society for Bone and Mineral Research 29<sup>th</sup> Annual Meeting, Honolulu, HI, September 16-19, 2007
- 226. Shogren KL, Yaszemski MJ, Hefferan TE, Charlesworth MC, Madden BJ, Turner RT, Maran A. Regulation of protein synthesis factors in estrogen metabolite-mediated inhibitions of osteosarcoma cells (poster #T254, J Bone and Min Res, 22, supl 1: S292, 2007), The American Society for Bone and Mineral Research 29<sup>th</sup> Annual Meeting, Honolulu, HI, September 16-19, 2007
- 227. Hefferan TE, Yaszemski MJ: Technical aspects of bone histomorphometry, American Society for Bone and Mineral Research 29<sup>th</sup> Annual Meeting, Honolulu, HI, September 16-29, 2007
- 228. Kim J, Lu L, Hefferan TE, Currier BL, and Yaszemski MJ: Osteogenic differentiation on biodegradable hydrogels functionalized with charge and RGD peptide (poster), Biomedical Engineering Society 2007 Annual Fall Meeting, Los Angeles, CA, September 26-29, 2007

- 229. Dadsetan M, Hefferan TE, Szatkowski JP, Lu L, and Yaszemski MJ: Porous hydrogel for osteoblastic differentiation of marrow stromal cells (oral presentation), 6<sup>th</sup> Combined Meeting of the Orthopaedic Research Societies, Honolulu, HI, October 24-27, 2007
- 230. Sarkar G, Mahlum E, Halder C, Maran A, and Yaszemski MJ: Comparative surface proteome analysis between poorly metastatic and highly metastatic osteogenic sarcoma cells identifies candidate cell-surface markers for metastasis (poster), 6<sup>th</sup> Combined Meeting of the Orthopaedic Research Societies, Honolulu, HI, October 24-27, 2007
- 231. Maran A, Benedikt M, Szatkowski JP, Shogren KL, Yaszemski MJ: 2-methoxyestradiol regulates osteoprotegerin expression in osteosarcoma cells, Skeletal Complications of Malignancy V, Philadelphia, PA, October 25-27, 2007
- 232. Yaszemski MJ: Reconstruction following spinopelvic tumor resection, True Research Foundation, Society of Military Orthopaedic Surgeons (SOMOS) Conference, Vail Colorado, December 10-15, 2007
- 233. Op den Buijs J, Kee KW, Jorgensen SM, Wang S, Yaszemski MJ, Ritman EL: High resolution x-ray imaging of dynamic solute transport in cyclically deformed porous tissue scaffolds (oral presentation), The International Society for Optical Engineering, San Diego, CA, February 17-20, 2008
- 234. Rose PS and Yaszemski MJ: Diagnosis and Management of Spinal Metastatic Disease, Instructional Course Lecture, American Academy of Orthopaedic Surgeons 75<sup>h</sup> Annual Meeting, San Francisco, CA, March 8, 2008
- 235. Dadsetan M, Knight AM, Vallejo C, Lu L, Windebank AJ, Yaszemski, MJ: Charge modification of hydrogels for nerve regeneration (poster), University of Minnesota's Design of Medical Devices Conference, Minneapolis, MN, April 15-17, 2008
- 236. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineering Constructs, 16<sup>th</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August 13-16, 2008
- 237. Wang S, Yaszemski MJ, Lu L: Polymer Dynamics and Rheology in Designing and Understanding Injectable Polymeric Biomaterials (oral presentation), 36<sup>th</sup> Annual Meeting of NATAS (North American Thermal Analysis Society), Atlanta, GA, August 18-20, 2008
- 238. Yaszemski MJ: Tissue engineering strategies for the treatment of peripheral nerve defects, New Jersey Center for Biomaterials Symposium. New Brunswick, NJ, October 29-31, 2008
- 239. Yaszemski MJ: Fumarate Ester Technology for Regenerative Medicine Application, New Jersey Center for Biomaterials Symposium. New Brunswick, NJ, October 29-31, 2008
- 240. Maran A, Dadsetan M, Brophy CM, Yaszemski MJ: Polymer-mediated controlled delivery prolongs the anti-tumor effects of 2-methoxyestradiol in bone cancer cells (oral presentation), The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 29, 2008
- 241. Dadsetan M, Knight AM, Lu L, Windebank AJ, Yaszemski MJ: Charge modification of hydrogels for nerve regeneration (oral presentation), The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 29, 2008
- 242. Yaszemski MJ: Trauma Care Delivery and Battlefield Injuries Seen at the Air Force Theater Hospital Balad, Iraq, The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 29-31, 2008

- 243. de Boer R, Knight AM, Spinner RJ, Malessy MJA, Yaszemski MJ, Windebank AJ: AFIRM nerve regeneration project 1: growth factor releasing microspheres and the effect on peripheral nerve regeneration (oral presentation). 26<sup>th</sup> Army Science Conference, Orlando, FL, December 1-4, 2008
- 244. Gerson S, Windebank A, Yaszemski MJ: AFIRM Overview, Clinical Trials Development Resources. Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 14, 2009
- 245. Dadsetan M, Hefferan TE, Heine-Gelder A, Spelsberg TC, Lu L, Maran A, Yaszemski MJ: Proliferation and differentiation of osteoblasts encapsulated in hydrogels. Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-16, 2009
- 246. Dadsetan M, Knight AM, Lu L, Windebank AJ, Yaszemski MJ: Charge modification of hydrogels for nerve regeneration. Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-16, 2009
- 247. Kempen D, Lu L, Hefferan T, Creemers L, Heijink A, Maran A, Dhert W, Yaszemski MJ: Intermittent PTH (1-34) administration enhances BMP-2 induced ectopic and orthotopic bone formation (oral presentation). 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society, Las Vegas, NV, February 22-25, 2009
- 248. Yaszemski MJ: Tissue engineering strategies for musculoskeletal regenerative medicine in civilian and military applications (keynote speaker), Cambridge Healthtech Institute's 16<sup>th</sup> International Molecular Medicine Tri-Conference, San Francisco, CA, February 25-27, 2009
- 249. Yaszemski MJ: Osteoconductive scaffolds, Bone Defects: When are Orthobiologics Indicated? American Academy for Orthopaedic Surgeons 76 Annual meeting, Las Vegas, NV, February 27, 2009
- 250. Yaszemski MJ: The Air Force Theater Hospital Balad: Lessons Learned for the care of Wounded Warriors and Opportunities for Translation to Civilian Trauma Care National Naval Medical Center (NNMC), Washington, DC, March 23, 2009
- 248. Runge MB, Dadsetan M, Yaszemski MJ: Fabrication of conducting composite materials of polypyrrole-polycaprolactone fumarate for nerve regeneration (oral presentation). 237<sup>th</sup> ACS National Meeting, Salt Lake City, UT, March 22-23, 2009
- 251. Runge MB, Dadsetan M, Maran A, Yaszemski MJ: Electrically conducting 3-dimensional porous scaffolds for bone regeneration (oral presentation). 237<sup>th</sup> ACS National Meeting, Salt Lake City, UT, March 22-23, 2009
- 252. Runge MB, Dadsetan M, Yaszemski MJ: Development of conducting polymer composites for peripheral nerve regeneration (oral presentation). Society for Biomaterials 2009 Annual Meeting, San Antonio, TX, April 22-25, 2009
- 253. Hanna A, Yaszemski MJ: Classification of sacropelvic resection for primary malignant tumors (poster). The AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, March 11-14, 2009
- 254. Pumberger M, Dadsetan M, Yaszemski MJ: Effect of Electrical Charge on Chondrocyte Attachment, 35<sup>th</sup> Annual Northeast Bioengineering Conference, April 3-5, 2009
- 255. Yaszemski MJ: Perspectives from Academic Medicine, American Association of Medical Colleges, Forum on Conflict of Interest in Academe, Boston, MA, June 29, 2009
- 256. Yaszemski MJ: Tomorrow's Medicine Plenary Session, Department of Defense Third Military Research Forum (MHRF), Kansas City, MO, September 2, 2009

- 257. Yaszemski MJ: Musculoskeletal Regenerative Medicine: Bone and Nerve Tissue Engineering. Military Research Forum, Kansas City, MO, September 2, 2009
- 258. Yaszemski MJ, Rose PS, Currier BL, Dekutoski MB, Huddleston PM, Nassr A, Pichelmann MA, Sim FH: Classification of spinopelvic resections: oncologic and reconstructive implications (oral presentation, paper #65). 44<sup>th</sup> Annual Meeting of the Scoliosis Research Society, San Antonio, TX, September 25, 2009
- 259. Dekutoski MB, Yaszemski MJ, Rose PS, Currier BL, Huddleston PM, Nassr A, Pichelmann, MA, Sim FH: Classification of spinopelvic resections: oncologic and reconstructive implications (poster #31), North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009
- 260. Boriani S, Yaszemski MJ, Rose P: Reassessment of preoperative angiography in primary tumors of the thoracic spine (poster #175), North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009
- 261. Noger M, Dekutoski MB, Boriani S, Yaszemski MJ, Rose PS: Reassessment of preoperative angiography in primary tumors of the thoracic spine, North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009
- 262. Runge MB, Dadsetan M, Ruesink T, Yaszemski MJ: Evaluation of electrically conductive and non-conductive porous 3-dimensional scaffolds (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 263. Runge MB, Dadsetan A Knight, Windebank A, Yaszemski MJ: Development of electrically conductive polymeric scaffolds for nerve regeneration (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 264. Runge MB, Dadsetan M, Yaszemski MJ: Development of conducting polymer composites for peripheral nerve regeneration. Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 265. Hefferan TE, Herrick J, Burgess J, Jewison D, Evans G, Yaszemski MJ: Histological evaluation of scaffolds implanted into a canine femoral multiple defect model (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 266. Windebank AJ, Spinner R, Dyck J, Bishop A, Razonable R, Wang H, Wettstein P, Yaszemski MJ: A clinical trial to assess the safety of a novel scaffold biomaterial (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 267. Wang H, Blouin M-N H, Spinner RJ, Yaszemski MJ, Windebank AJ: Creation of an ischemia/fibrosis limb model and its impact on nerve regeneration (poster, 2<sup>nd</sup> place award). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 268. Wang H, Windebank AJ, Yaszemski MJ. AFIRM Integrated Nerve Regeneration Program: Program Status and Research Projects. AAOS Extremity War Injuries Symposium V: Barriers to Return of Function and Duty. January 27-29, 2010, Washington DC
- 269. Yaszemski MJ: Workshop #8, The Armed Forces Institute of Regenerative Medicine: Its Structure, Operations, and Goals, AFIRM History and Organization: Nerve Regeneration

- Strategies, 56<sup>th</sup> Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, March 9, 2010
- 270. MacDonald SJ, McDermott, Melderson M, Morrey BF, Weinstein SL, Greenwald A, Oxon DP, Yaszemski MJ: Off-label device use: when clinical need outpaces regulatory approval. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, Tumor and Metabolic Disease Session, New Orleans, LA, March 10, 2010
- 271. Buchowski JM, Levine AM, Yaszemski MJ, Rose PS: Clinical challenges facing the practicing orthopedic surgeon spine tumors. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, Tumor and Metabolic Disease Session, New Orleans, LA, March 12, 2010
- 272. Yaszemski MJ, Rose PS, Dekutoski MB, Huddleston P, Nassr A, Currier BL, Shives TC, Sim FH. Classification of spinopelvic resections: oncologic and reconstructive implications (poster #P543). American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 12, 2010
- 273. Yaszemski MJ: Polymeric biomaterials: A history of use in regenerative and reconstructive medicine. American Chemical Society Symposium in Honor of the 100<sup>th</sup> Anniversary of Leo Baekeland's ACS Presentation of Bakelite. San Francisco, CA, March 22, 2010
- 274. Runge MB and Yaszemski MJ: Development of injectable polymers that cross-link by click chemistry (oral presentation). Society for Biomaterials, Seattle, WA, April 21-24, 2010
- 275. Yao L, Ruiter GCW, Wang H, Knight AM, Spinner RJ, Yaszemski MJ, Windebank AJ, Pandit A: Controlling dispersion of axonal regeneration using a multichannel collagen nerve conduit (oral presentation and poster). Society for Biomaterials, April 21-24, 2010, Seattle, WA
- 276. Yaszemski MJ: Conflict of Interest in Research. Society for Biomaterials Annual Meeting, Seattle, WA, April 24, 2010
- 277. Yaszemski MJ: Translation of Tissue Engineering Strategies to Clinical Practice, Clemson Award Lecture, Society for Biomaterials Annual Meeting, Seattle, WA, April 24, 2010
- 278. Yao L, Ruiter GCW, Wang H, Knight AM, Spinner RJ, Yaszemski MJ, Windebank AJ, Pandit A: Controlling dispersion of axonal regeneration using a multichannel nerve conduit (oral presentation). European Society for Biomaterials 23<sup>rd</sup> Annual Meeting, Tampere, Finland, September 11-15, 2010
- 279. Yaszemski MJ: The FDA Role in the Regulatory Cost of Bringing Novel Treatments to Clinical Practice, Armed Forces Institute of Regenerative Medicine Interim Meeting, Washington DC, December 10, 2010
- 280. Shinohara K, Luangphakdy V, Pan H, Boehm C, Lampe B, Saini S, Griffith L, Stockdale L, Segovis S, Yaszemski MJ, Darr A, Kohn J, Muschler G: Systematic Evaluation from Available Promising Three-Dimensional Osteoconductive Bone Scaffolds in Canine Femoral Multi Defect Model (Poster #1852). 57<sup>th</sup> Annual Meeting of the Orthopaedic Research Society, Long Beach, CA, January 13-16, 2011
- 281. Yaszemski MJ: Innovation: Addressing the Interface of Conflict of Interest and Research Integrity. Orthopaedic Research Society/American Academy of Orthopaedic Surgeons Combined Symposium I: Overcoming Obstacles to Innovation, 57<sup>th</sup> Annual Meeting of

- Orthopaedic Research Society 2011 and 78<sup>th</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, Long Beach, CA, January 14, 2011
- 282. Yaszemski MJ and Krevolin JL: The Theater of Innovation Two Perspectives. 2011 Annual Meeting of the Orthopaedic Research Society, ORS Workshop, Long Beach, CA, January 14, 2011
- 283. Yaszemski MJ: The Armed Forces Institute of Regenerative Medicine: Bone and Nerve Regenerative Programs. AFMS Medical Research Symposium, Washington, DC, August 2, 2011
- 284. Luangphakdy V, Shinohara K, Pan H, Griffith L, Yaszemski MJ, Kohn J, Muschler G: Competitive assessment of polymer-based bone scaffolds in the canine femoral multi-defect model (poster). Advanced Technology Applications for Combat Casualty Care (ATACCC) Conference, Fort Lauderdale, FL, August 15-18, 2011
- 285. Casper ME, Dadsetan M, Yaszemski MJ: Co-encapsulation of TGF-β1 into negatively charged oligo(polyethylene glycol) fumarate (OPF) hydrogels to enhance chondrogenesis. 58th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 4-7, 2012
- 286. Casper ME, Dadsetan M, Yaszemski MJ: Effect of negatively charged oligo(polyethylene glycol) fumarate (OPF) on periosteal chondrogenesis. 58th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 4-7, 2012
- 287. Yaszemski, MJ: Pelvic reconstruction after sacral resection. 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 24-28, 2012
- 288. Yaszemski, MJ: What effect have changes in spinal implant materials used in interbody & pedicle/rod screw systems had on infection rates over the past decade? Infection Half-Day Course, Scoliosis Research Society Annual Meeting, Chicago, IL, September 5-8, 2012
- 289. C. D. Moussallem, A. Nassr, B.C. Currier, P.M. Huddleston, P. Rose, M.J. Yaszemski, M.B. Dekutoski: Perioperative Complications in Open versus Percutaneous Treatment of Spinal Fractures in Patients having an Ankylosed Spine. Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL, Sept 21-23, 2012
- 290. Yaszemski, MJ: Role of the DoD Defense Advaned Research Projects
  Agency/Orthopaedic Extremity Trauma Research Program, AAOS/OREF/ORS Clinician
  Scholar Development Program, Rosemont, IL, October 7-9, 2012
- 291. Yaszemski, MJ: The United States Military Investment in Regenerative Medicine, World Stem Cell Summit, West Palm Beach, FL, December 3-5, 2012
- 292. Yaszemski, MJ: Growth factor delivery in biomaterials and tissue engineering to the spinal cord. ORS 2013 Annual Meeting, San Antonio, TX, January 28, 2013
- 293. Yaszemski, MJ: The future regarding the opportunities for new applications and further development of existing therapies. AAOS 2013 Annual Meeting, Chicago, IL. March 19, 2013
- 294. Yaszemski, MJ: Porous Polymers in Tissue Engineering and Regenerative Medicine Application, American Chemical Society National Meeting and Exposition, New Orleans, LA, April 9, 2013
- 295. Wagner E, Chase SC, Bravo D, Dadsetan M, Kakar S, Yaszemski MJ: Novel Porous Polycaprolactone Fumarate (PCLF) Scaffold for Adipocyte Derived Mesenchymal Stem Cell Engineering and Platelet Lysate Enhanced Ligament Differentiation. Society for Biomaterials 2013 Annual Meeting & Exposition, Boston, MA, April 11, 2013

- 296. Wagner E, Chase SC, Bravo D, Dadsetan M, Kakar S, Yaszemski MJ: Polycaprolactone Fumarate (PCLF) as a Backbone for Chondrocyte Attachment and Proliferation Augmented by Platelet Lysate. Society for Biomaterials 2013 Annual Meeting & Exposition, Boston, MA, April 11, 2013
- 297. Chase SC, Wagner E, Bravo D, Dadsetan M, Kakar S, Yaszemski MJ: Development and Characterization of a Novel Polycaprolactone Fumarate (PCLF) Scaffold Manufactured through a Sacrificial Molding Technique (poster). Society for Biomaterials 2013 Annual Meeting & Exposition, Boston, MA, April 11-13, 2013
- 298. Yaszemski MJ: The Role of Orthopaedics in Translational Musculoskeletal Research. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Development Program, Rosemont, IL, September 27, 2013
- 299. Yaszemski MJ: The Role of the Department of Defense Funding Agencies in Medical Research. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Development Program, Rosemont, IL, September 27, 2013
- 300. Yaszemski MJ: The Administrative Requirements of Biomedical Research. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Development Program, Rosemont, IL, September 28, 2013
- 301. Bravo D, Shogren K, Wagner E, Herrick J, Maran A, Yaszemski M: Osteosarcoma, the Wnt Pathway and its Potential in Therapeutics, Annual Meeting of the Musculoskeletal Tumor Society, San Francisco, CA, October 3-5, 2013
- 302. Riester S, Yaszemski M, Maran A, Oliveira A, Brown R, Kakar S, van Wijnen A, Shogren K: A prognostic microRNA signature for chondrosarcoma. Annual Meeting of the Musculoskeletal Tumor Society, San Francisco, CA, October 3-5, 2013
- 303. Wagner E, Chase S, Bravo D, Dadsetan M, Kakar S, Yaszemski MJ: Novel Porous Polycaprolactone Fumarate (PCLF) Scaffold for Adipocyte Derived Mesenchymal Stem Cell Engineering and Platelet Lysate Enhanced Ligament Differentiation. Annual Meeting of the American Society for Surgery of the Hand, San Francisco, CA, October 3-5, 2013
- 304. Wang H, Spinner R, Windebank A, Yaszemski MJ: Key Changes and Time Course of Muscle Denervation in a Rat Model. American Society for Peripheral Nerve Annual Meeting, Kauai, HI, January 10-12, 2014
- 305. Lehman R, and Yaszemski MJ (Session Panelists; Jay Khanna, Moderator): Spinal Trauma: Improvements in Fusion, Bone Graft Substitutes, and Extenders. Extremity War Injuries IX: Reducing Disability within the Military, Washington, DC, Feb. 12, 2014.
- 306. Yaszemski MJ: Maximizing Career and Job Satisfaction. Symposium G (Frick S, Moderator): Maximizing Your Practice's Potential in the New Healthcare Environment. Annual Meeting of the American Academy of Orthopaedic Surgeons New Orleans, LA, March 11, 2014
- 307. Arsoy D, Iwasawa M, An K-N, Yaszemski MJ, Steinmann SP, Sanchez-Sotelo J, Morrrey BF: Intra-articular Celecoxib-Loaded oligo(polyethylene glycol) (OPF) Scaffolds Reduce Joint Contracture in a Rabbit Model of Arthrofibrosis (poster). Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, March 11-15, 2014

- 308. Larson AN, Ashraf A, Polly DW, Baghdadi YM, and Yaszemski MJ: Minimum 20-Year Health Related Quality of Life and Surgical Rates for Treatment of Adolescent Idiopathic Scoliosis. Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, March 12, 2014
- 309. Wagner E, Bravo D, Yaszemski M, and Kakar S: Novel Polymer Scaffold for MSC Engineering and Biological Enhancement of Ligament Differentiation. Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, March 13, 2014.
- 310. Arutyunyan G, Rose PS, Sim FH, and Yaszemski MJ: The Role of Spinopelvic Reconstruction after Amputative Sacrectomy. Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, March 14, 2014
- 311. Yaszemski, M: Tissue Engineering in Orthopedics, Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 16-17, 2014
- 312. Yaszemski, M: Tissue Engineered Medical Products: Bedside to Bench and Back, Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 16-17, 2014
- 313. Wagner E, Kok P, Su Y, Dadsetan M, Chase SC, Riester S, Yaszemski MJ, Van Wijnen A, and Kakar S: Development of a Tissue Engineered Neoligament for Intra-Articular Ligament Regeneration. Society for Biomaterials Annual Meeting and Exposition, Denver, CO, April 17, 2014
- 314. Chen CC, Dadsetan M, Miller AL, Yaszemski MJ, and Lu L: Dual Growth Factor Delivery fron Injectable P(PF-co-CL) Copolymers for Bone Regeneration (poster). Society for Biomaterials Annual Meeting and Exposition, Denver, CO, April 16-19, 2014
- 315. Gustafson CT, Dadsetan M, and Yaszemski MJ: Charged Hydrogels for the Controlled Elution of Vancomycin (poster). Society for Biomaterials Annual Meeting and Exposition, Denver, CO, April 16-19, 2014
- 316. Chase SC, Parry J, Su Y, Dadsetan M, Kakar S, and Yaszemski MJ: Development of a Tissue Engineered Poly(Caprolactone Fumarate) (PCLF) Scaffold for Ligament Regeneration (poster). Society for Biomaterials Annual Meeting and Exposition, Denver, CO, April 16-19, 2014
- 317. Dadsetan M, Zhu A, Rad MRE, Babaei F, Dietz AB, and Yaszemski MJ: Biomimetic Charged Hydrogel Construct for Cartilage Regeneration (poster). Society for Biomaterials Annual Meeting and Exposition, Denver, CO, April 16-19, 2014
- 318. Larson AN, Polly DW, Shaughnessy WJ, and Yaszemski MJ: Minimum 20-year Radiographic Outcomes for Treatment of Adolescent Idiopathic Scoliosis: Preliminary Results from a Novel Cohort of US Patients. Scoliosis Research Society 49<sup>th</sup> Annual Meeting and Course, Anchorage, AK, September 12, 2014
- 319. England K, Larson AN, Polly DW, Ledonio CGT, and Yaszemski MJ: Thoracic Volume and Pulmonary Function at a Minimum of 20 Years following Treatment of Adolescent Idiopathic Scoliosis: Preliminary Results. Scoliosis Research Society 49<sup>th</sup> Annual Meeting and Course, Anchorage, AK, September 13, 2014
- 320. Yaszemski MJ: The Role of Department of Defense Funding Agencies in Medical Research. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Career Development Program, Rosemont, IL, September 26, 2014
- 321. Yaszemski MJ: The Administrative Requirements of Biomedical Research. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education

- Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Career Development Program, Rosemont, IL, September 27, 2014
- 322. Yaszemski MJ: Conflicts of Interest: Private, Corporate, & Foundation Support. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Career Development Program, Rosemont, IL, September 27, 2014
- 323. Sebastian A, Nassr A, Huddleston PM, Habermann E, Wagie A, Kakar S, and Yaszemski MJ: Risk factors for Surgical Site Infection after Posterior Cervical Spine Surgery: Analysis from the ACS-NSQIP 2005-2012. Cervical Spine Research Society 2014 Annual Meeting, Orlando, FL, Dec 4-6, 2014
- 324. Yaszemski, M: Funding for Research in the Military, Society of Military Orthopaedic Surgeons Annual Meeting, Scottsdale, AZ, December 18-20, 2014
- 325. Yaszemski MJ: Current State of 3D Printed Bone Scaffolding in Regenerative Medicine. Collaborative 3D Printing in Medical Practice Inaugural Meeting. Scottsdale, AZ, February 7, 2015
- 326. Voronov A, Shogren K, Gustafson C, Yaszemski MJ, Maran A: Invertible Micellar Polymer Assemblies for Targeted Delivery of Curcumin to Osteosarcoma Cells American Chemical Society 249<sup>th</sup> Annual Meeting, Denver CO, March 22-26, 2015
- 327. Arutyunyan G, Yaszemski M, Sim F, Wenger D, Murdoch N, Sebastian A, Rose P: Prognostic Factors of Early Mortality in Patients Undergoing Spinopelvic Tumor Resection (Paper # 521). Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, NV, March 26, 2015
- 328. Wagner E, Kakar S, van Wijnen A, Dadsetan M, Yaszemski MJ: PCLF as a Backbone for Chondrocyte Attachment and Proliferation Augmented by Platelet Lysate (Poster # P226). Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, NV, March 24-28, 2015
- 329. Yaszemski MJ: Tissue Engineering in Orthopaedics. Orthopaedic Research Society (ORS)/Orthopaedic Research and Education Foundation (OREF) Basic Science Course. ORS Annual Meeting, March 29, 2015
- 330. Yaszemski MJ: Bedside to Bench and Back: Translation and Commercialization of Novel Treatments from the Perspective of an Academic Medical Center. Orthopaedic Research Society (ORS) Annual Meeting, March 30, 2015
- 331. Yaszemski MJ: Leadership through Effective Communication and Negotiation across a Diverse Workforce. Symposium 2 (Clohisy DR, Moderator), 128<sup>th</sup> Annual Meeting of the American Orthopaedic Association, Providence, RI, June 25, 2015
- 332. Yaszemski MJ: Decision Making for Sacrectomy versus Partial Sacrectomy. 22<sup>nd</sup> International Meeting on Advanced Spinal Techniques (IMAST). Kuala Lumpur, Malaysia, July 9, 2015
- 333. Mamo TK, Shogren KL, Mladek AC, Gupta SK, Maran A, Sarkaria JN, and Yaszemski MJ: The DNA-PK Inhibitor KU60648 has differential radiosensitizing effects in various primary bone tumor cells. National MD/PhD Association Meeting, Keystone, CO, July 16-18, 2015 (poster).
- 334. Yaszemski MJ: Compliance, Time Efforts, Audits, HIPAA, IRB, and IACUC: The Administrative Requirements of Biomedical Research. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation

- (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Development Program, Rosemont, IL, September 19, 2015
- 335. Yaszemski MJ: Innovation: Addressing the Interface of Conflict of Interest and Research Integrity. American Academy of Orthopaedic Surgeons (AAOS), Orthopaedic Research and Education Foundation (OREF), and Orthopaedic Research Society (ORS) Clinician Scholar Development Program, Rosemont, IL, September 19, 2015
- 336. Larson AN, Shaughnessy WJ, Cowl C, Ledonio C, Polly Jr. DW, and Yaszemski MJ: Reduced Pulmonary Function in AIS Patients with Hypokyphosis: Mean 30-Year Follow up. Scoliosis Research Society 50<sup>th</sup> Annual Meeting and Course, Minneapolis, Minnesota, October 1, 2015
- 337. Young EY, Currier BL, Yaszemski MJ, and Larson AN: Cervical Spine Disease Common after Pediatric Treatment of AIS at Mean 30-Year Follow up. Scoliosis Research Society 50<sup>th</sup> Annual Meeting and Course, Minneapolis, Minnesota, October 2, 2015
- 338. Yaszemski MJ: 3D Printing in Orthopaedic Surgery and Musculoskeletal Regenerative Medicine. 101<sup>st</sup> Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL, December 2, 2015
- 339. Wang H, Windebank AJ, and Yaszemski MJ: Extremity Regeneration Project 04: Tissue Engineering for Repair of Critical Nerve Gaps. Armed Forces Institute of Regenerative Medicine II (AFIRM II) Investigators Meeting, Bethesda, MD, January 13, 2016
- 340. Aleem I, Evanview N, Bhandari M, Busse J, Yaszemski MJ, Agarwal A, and Einhorn TA: Efficacy of Electrical Stimulators for Bone Healing: A Meta-Analysis of Sham-Controlled Randomized Trials (poster). American Academy of Orthopaedic Surgeons Annual Meeting, Orlando, FL, March 1-5, 2016
- 341. Yaszemski MJ: Mechanisms of Traumatic Injury, 11<sup>th</sup> Mayo Clinic Medical and Surgical Spine Course: Comprehensive Cervical Spine Phoenix, AZ, January 12-14, 2017
- 342. Yaszemski MJ: Translation and Commercialization: Bedside to Bench and Back, Third San Antonio Conference on Stem Cell Research and Regenerative Medicine, San Antonio, TX, February 16-17, 2017
- 343. Yaszemski MJ: Current State of Bioprinting and Regenerative Medicine, Collaborative 3D Printing in Medical Practice, Scottsdale, AZ, March 3-5, 2017
- 344. Yaszemski MJ: Conflicts of Interest in Clinical Research, ORS Clinical Research Forum, San Diego, CA, March 19, 2017
- 345. Yaszemski MJ: Regenerative Engineering: A Look to the Year 2017, Society for Biomaterials Annual Meeting, Minneapolis, MN, April 6, 2017
- 346. Yaszemski MJ: Clinical Perspective: How to Manage Conflicts, ORS/AAOS Translating Orthopaedic Technologies into Clinical Practice: Pathways from Novel Idea to Improvements in Standard of Care, Rosemont, IL, May 11-13, 2017

## **EXHIBITS AT NATIONAL MEETINGS**

1. Greenwald AS, Boden SD, Goldberg V, Yaszemski MJ: Bone graft substitutes: Facts, fictions and applications – AAOS Orthopaedic Device Forum (Scientific Exhibit #SE79), American Society for Orthopaedic Surgeons 2009 Annual Meeting, Las Vegas, NV, February 25-28, 2009

- 2. Greenwald AS, Boden SD, Barrak RL, Bostrom MPG, Goldberg V, Yaszemski MJ: The Evolving Role of Bone Graft Substitutes AAOS Orthopaedic Device Forum (Scientific Exhibit #SE10), American Academy of Orthopaedic Surgeons Annual Meeting, New Orleans, LA, March 9-13, 2010
- 3. Mihalko WM, Boyan BD, Trice ME, Yaszemski MJ, Greenwald AS, Lemons JE: Defining Personalized Medicine in Orthopaedics, Tumor and Metabolic Disease, American Academy of Orthopaedic Surgeons Device Forum, San Diego, CA, February 16-18, 2011

## PRESENTATIONS AT INTERNATIONAL MEETINGS

- 1. Yaszemski MJ, and White III AA: The Discectomy Membrane: Its Anatomic Description and Its Surgical Importance, Ninth Combined Meeting of the Orthopaedic Associations of the English Speaking World (poster), Toronto, Ontario, Canada, June 21-26, 1992
- 2. Ethier DB, Cain JE, Lauerman WC, Glover M, and Yaszemski MJ: The Influence of Annulotomy Type on Disc Competence, International Society for the Study of the Lumbar Spine, 19<sup>th</sup> Annual Meeting, Marseilles, France, June 1993
- 3. Ethier DB, Cain JE, Lauerman WC, Glover M, and Yaszemski MJ: The Influence of Annulotomy Type on Disc Competence, Intradiscal Therapy Society, Aberdeen, Scotland, May 1994 (received Eugene J. Nordby Research Award as best presentation at meeting)
- 4. Mikos AG, Bizios R, Ishaug SL, Thomson RC, Wake MC, and Yaszemski MJ: Polymer/Cell Constructs to Engineer Organs, 5<sup>th</sup> International ITV Conference on Biomaterials and Biohybrid Organs: Combination of Biomaterials and Cells to Functional Units. Denkendorf, Germany, June 8, 1994
- 5. Mikos AG, Aufdemorte TB, Bizios R, Ishaug SL, Payne RG, Thomson RC, and Yaszemski MJ: Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone, 2<sup>nd</sup> World Congress of Biomechanics, Amsterdam, The Netherlands, July 13, 1994
- 6. Pape HA, Zimmer WH, Delanois R, Yaszemski MJ, Witkowski E: Timetal®21SRx Technology Transfer of Timetal®21S to Medical Device Applications, Eighth World Conference on Titanium, Birmingham, UK, October 22-26, 1995
- 7. Jen A, Ishaug SL, Yaszemski MJ, McIntire LV, and Mikos AG: Three Dimensional *In Vitro* Mechanical Model for Bone Formation, World Biomaterials Conference, Toronto, Ontario, Canada, June 1996
- 8. Mikos AG, Riley SL, Crane GM, Miller MJ, Yaszemski MJ, and Yasko AW: Cell Based Delivery Systems for Bone Growth Factors, 8<sup>th</sup> International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 24-27, 1997
- 9. France JC, Lauerman WC, Yaszemski MJ, Cain JE, Glover JM, Coe J, Lawson K, and Topper SM: A Randomized Prospective Study of Lumbar Fusion With and Without Transpedicular Instrumentation, International Society for the Study of the Lumbar Spine Annual Meeting, Singapore, June 3, 1997
- 10. Peter SJ, Kim DJ, Yasko AW, Miller MJ, Yaszemski MJ, and Mikos AG: Poly(propylene fumarate)/β-tricalcium Phosphate Based Biomaterials for Engineering Bone, European Tissue Repair Society, Freiburg, Germany, August 21, 1997

- 11. Yaszemski MJ: Bone Tissue Engineering using Degradable Polymeric Biomaterials, Austria-Switzerland–Germany Exchange Fellowship Symposium, University of Wurzburg, Wurzburg, Germany, April 21, 1998
- 12. Yaszemski MJ: History of Orthopaedic Surgery at the Mayo Clinic, Austria-Switzerland–Germany Exchange Fellowship Symposium, University of Tubingen, Tubingen, Germany, 27 April 1998
- 13. Yaszemski MJ, Blackman R, Picetti G, Luque ER, and Sanders AE: Endoscopic Anterior Scoliosis Surgery and Instrumentation, Austria-Switzerland–Germany Exchange Fellowship Symposium, 1998 Annual Meeting of the Southern German Orthopaedic Society, Baden-Baden, Germany, April 30, 1998
- 14. Yaszemski MJ, Kim D, Peter SJ, Yasko AW, Miller MJ, and Mikos AG: TGF-β Induced Osteoblastic Behavior on a Poly(propylene fumarate) Based Orthopaedic Biomaterial, Austria-Switzerland–Germany Exchange Fellowship Symposium, Medical University of Hannover, Hannover, Germany, May 5, 1998
- 15. Yaszemski MJ: Bone Tissue Engineering using Degradable Polymeric Biomaterials, Austria-Switzerland–Germany Exchange Fellowship Symposium, University of Ulm, Ulm, Germany, May 13, 1998
- 16. Yaszemski MJ: Sacropelvic Resections for Musculoskeletal Sarcomas, Austria-Switzerland–Germany Exchange Fellowship Symposium, University of Vienna, Vienna, Austria, May 18, 1998
- 17. Yaszemski MJ: Sacropelvic Resections for Musculoskeletal Sarcomas, Austria-Switzerland–Germany Exchange Fellowship Symposium, University of Graz, Graz, Austria, May 20, 1998
- 18. Yaszemski MJ, Blackman R, Picetti G, Luque ER, and Sanders AE: Endoscopic Anterior Scoliosis Surgery and Instrumentation, Austria-Switzerland–Germany Exchange Fellowship Symposium, University of Innsbruck, Innsbruck, Austria, May 22, 1998
- 19. Yaszemski MJ: History of Orthopaedic Surgery at the Mayo Clinic, Austria-Switzerland–Germany Exchange Fellowship Symposium, Kantonsspital St. Gallen, St. Gallen, Switzerland, May 26, 1998
- 20. Yaszemski MJ, Blackman R, Picetti G, Luque ER, and Sanders AE: Endoscopic Anterior Scoliosis Surgery and Instrumentation, Austria-Switzerland–Germany Exchange Fellowship Symposium, Kantonsspital St. Gallen, St. Gallen, Switzerland, May 26, 1998
- 21. Palmer C, Murray P, Snearly W, and Yaszemski MJ: The Mechanism of Ulnar-Sided Perilunar Instability of the Wrist, The Seventh Congress of the International Federation of Societies for Surgery of the Hand, Vancouver, Canada, May 17, 1998
- Yaszemski MJ, Oldham JB, Porter BD, Hefferan TE, Larson DR, Currier BL, and Mikos AG: Biologische Aktivität von rhBMP-2 nach Freisetzung aus PLGA Mikrosphären. (Biologic Activity of rhBMP-2 after release from PLGA microspheres), presented in German at the Austria-Switzerland-Germany Fellows Meeting in conjunction with the Annual Meeting of the Swiss Orthopaedic Society, Winterthur, Switzerland, September 9, 1999
- 23. Yaszemski MJ: Evaluation and Management of Metastatic Disease of the Spine, Austria-Switzerland-Germany Fellows Session at the 2000 Annual Meeting of the Southern German Orthopaedic Society, Baden-Baden, Germany, April 29, 2000
- 24. He SL, Yaszemski MJ, Yasko AW, Engel PS, and Mikos AG: Synthesis of Biodegradable Poly(Propylene Fumarate) Networks with Poly(Propylene Fumarate)-

- Diacrylate Macromers as Crosslinking Agents and Characterization of their Degradation Products, World Biomaterials Congress, Kameula, HI, May 19, 2000
- 25. Lu L, Peter SJ, Stamatas GN, Kim DJ, Miller MJ, Yaszemski MJ, and Mikos AG: Controlled Release of TGF-β1 from biodegradable polymer microparticles and its effects on marrow stromal osteoblast function, International Conference on Bone Morphogenetic Proteins, Lake Tahoe, CA, June 10, 2000
- 26. Lynch JJ, Christensen DM, Yaszemski MJ, Marsh WR, and Currier BL: C1 Anatomy and Dimensions Relative to Lateral Mass Screw Placement, 16<sup>th</sup> Annual Meeting of the European Cervical Spine Research Society, London, England, June 21-24, 2000
- 27. Velan GJ, Currier BL, and Yaszemski MJ: Hemorrhagic Spinal Juxta-facet Cysts: Clinical Features and Outcome of Surgical Treatment, Annual Meeting of the Israeli Orthopedic Association, Tel Aviv, Israel, December 4-5, 2000
- 28. Velan GJ, Currier BL, and Yaszemski MJ: Traumatic Spondylolisthesis of the Lower Cervical Spine, Annual Meeting of the Israeli Orthopedic Association, Tel Aviv, Israel, December 4-5, 2000
- 29. Sim FH, and Yaszemski MJ: Ventral and Dorsal Sacral Resection (Cadaver Demonstration), 1<sup>st</sup> International Symposium and Workshop: Reconstructive Surgery of the Pelvis, University of Graz and Mayo Foundation, Graz, Austria, April 20, 2001
- 30. Yaszemski MJ: Fraturas da Coluna Toraco Lombar (Thoracolumbar Fractures), Congresso do Instituto de Ortopedia e Traumatologia (CIOT), University of Sao Paolo, Sao Paolo, Brazil, May 18, 2001
- 31. Yaszemski MJ: Engenharia do Tecido Osseo (Bone Tissue Engineering), Congresso do Instituto de Ortopedia e Traumatologia (CIOT), University of Sao Paolo, Sao Paolo, Brazil, May 19, 2001
- 32. Yaszemski MJ: Tratamento das metastases na coluna vertebral (Treatment of spinal metastases), Congresso do instituto de ortopedia e traumatologia (CIOT), University of Sao Paolo, Sao Paolo, Brazil, May 19, 2001
- 33. Currier BL, Maus TP, Larson DR, and Yaszemski MJ: Relationship of the Internal Carotid Artery to the Anterior Aspect of C1: Implications for C1-2 Transarticular and C1 Lateral Mass Screw Fixation, Austrian-Swiss-German Fellows Session of the Annual Meeting of the Southern German Orthopaedic Society, Baden-Baden, Germany, May 4, 2002
- 34. Currier BL, Maus TP, Larson DR, and Yaszemski MJ: Relationship of the Internal Carotid Artery to the Anterior Aspect of C1: Implications for C1-2 Transarticular and C1 Lateral Mass Screw Fixation, 2002 Meeting of the European Cervical Spine Research Society (poster), Paris, France, June 13-14, 2002
- 35. Kharas GB, Villaseñor G, Herrman J, Kharas K, Watson K, and Yaszemski MJ: Synthesis and Characterization of Fumarate Copolyesters for use in Bioresorbable Bone Cement Composites, Materials Congress, London, UK, April 9-11, 2002
- 36. Kempen DHR, Kim CW, Lu L, Dhert WJA, Currier BL, and Yaszemski MJ: Controlled Release from Poly(Lactic-co-glycolic Acid) Microspheres embedded in an Injectable, Biodegradable Scaffold for Bone Tissue Engineering, International conference on Processing & Manufacturing of Advanced Materials Thermec Conference, Madrid, Spain, July 7-11, 2003

- 37. Yaszemski MJ and Dozois E: Ventral and Dorsal Sacral Resection (Cadaver Demonstration), 2<sup>nd</sup> International Symposium and Workshop: Reconstructive Surgery of the Pelvis, University of Graz and Mayo Foundation, Rochester, MN, May 10, 2003
- 38. Fuchs B, Yaszemski MJ, Inwards C, and Sim FH: Operative Management of Sacrococcygeal Chordoma, 12<sup>th</sup> International Symposium on Limb Salvage, Rio de Janeiro, Brazil, September 15, 2003
- 39. Currier BL, Maus TP, Larson DR, and Yaszemski MJ: Anatomic Relationship of the Internal Carotid Artery to the C1 Vertebra: A Case Report of Cervical Reconstruction for Chordoma and Pilot Study to Assess the Risk of Screw Fixation of the Atlas. (Beziehung der arteria carotis interna zu C1: Implikationen für die schraubenplatzierung. Lecture given in German), First Combined Annual Meeting of the German Trauma Association and the German Orthopaedic Association, Berlin, Germany, November 13, 2003
- 40. Yaszemski MJ, Krauss W, Currier B: Spinopelvic Reconstruction Following Sacropelvic Resection for Tumors (poster #31), 39<sup>th</sup> Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004
- 41. Dozois E, Wall, and Yaszemski MJ: Surgical Management of Pelvic Neurogenic Tumors A Multidisciplinary Approach, 2005 Tripartite Colorectal Meeting: July 5-7, 2005 at the Royal Dublin Society, Dublin, Ireland
- 42. Chen BK, Gross LA, deRuiter GCW, Knight AM, Koch A, Ameenuddin S, Podratz JL, Yaszemski MJ, Currier BL, Spinner RJ, and Windebank AJ: Assessment of Regeneration by Axonal Tracing (poster), Conference in Regenerative Medicine, National University of Ireland, Galway, Ireland, July 11-13, 2006
- 43. Yaszemski MJ: Regulatory Issues: The FDA Role in Bringing Novel Treatments to Practice, Mayo Clinic College of Medicine 2<sup>nd</sup> International Spine Symposium, Big Island, Hawaii, January 21, 2007
- 44. Yaszemski MJ: Reconstruction Following Lumbopelvic Resections, Mayo Clinic College of Medicine 3rd International Spine Symposium, Kaua'i, Hawaii, January 27-31, 2008
- 45. Wang S, Yaszemski MJ, Knight AM, Windebank AJ, Lu L: Photocrosslinked Poly (ε-caprolactone fumarate) Networks for Peripheral Nerve Regeneration (oral presentation), 5<sup>th</sup> East-Asian Polymer Conference, Shanghai, China, June 3-6, 2008
- 46. Maran A, Dadsetan M, Brophy CM, Yaszemski MJ: Estrogen Metabolites in the Control of Osteosarcoma. EHRLICH II, 2<sup>nd</sup> World Conference on Magic Bullets, October 3-5, 2008, Nuremberg, Germany
- 47. Wang H, Herbert Blouin M-N, Windebank AJ, Yaszemski MJ, Spinner RJ: Nerve regeneration in the scarred and ischemic limb. 18 Meeting of the Sunderland Society, Shanghai, China, October 31-November 4, 2009
- 48. Wang H, Windebank AJ, Yaszemski MJ: Tissue Engineering: Application in Bone, Cartilage and Nerve Regeneration. 3rd Annual World Congress of Gene-2009 (WCG-2009), Foshan, China, December 6, 2009
- 49. Yaszemski MJ: Session XI: Back Pain, Mayo Clinic College of Medicine 5th International Spine Symposium, Kohala Coast, Hawaii, February 4, 2010
- 50. Dadsetan M. Liu Z, Pumberger M, Yaszemski MJ: Stimuli-responsive hydrogel for drug delivery (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010

- 51. Dadsetan M. Liu Z, Pumberger M, Yaszemski MJ: Electrically charged PEG-based hydrogel for cartilage regeneration (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010
- 52. Runge MB, Dadsetan M, Knight A, Windebank AJ, Yaszemski MJ: Development of conducting polymer composites in peripheral nerve regeneration (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010
- 53. Runge MB and Yaszemski MJ: Development of injectable polymers that cross-link by click chemistry (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010
- 54. Yaszemski MJ: Spinal Osteoporosis Management. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Canada, July 23, 2010
- 55. Yaszemski MJ: Scoliosis Research Society Program Committee Report. 45<sup>th</sup> Annual Meeting and Combined Course, Kyoto, Japan, September 22, 2010
- 56. Yaszemski MJ: Musculoskeletal and Neurologic Tissue Engineering and Regeneration, Frontiers in Biomedical Research: Regenerative Medicine, Karolinska Institute, Stockholm, Sweden, November 5, 2010
- 57. Yaszemski MJ: Musculoskeletal Regenerative Medicine, 4<sup>th</sup> International Conference on Tissue Engineering, Chania, Crete, Greece, June 3, 2011
- 58. Yaszemski, MJ: The Treatment of Osteoporosis. Session 4D, The Osteoporotic Spine: Fixation Challenges and Solutions. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 15, 2011
- 59. Yazemski, MJ: Keynote Speaker, The International Conference VAIL Europe 2012, Wroclaw, Poland, May 23, 2012
- 60. Yaszemski, MJ: Management of Giant Cell Tumors of Sacrum, 19<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Istanbul, Turkey, July 18-21, 2012
- 61. Yaszemski MJ: Management of Sacropelvic Tumors, 19<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Istanbul, Turkey, July 19<sup>th</sup>, 2012
- 62. Yaszemski MJ: The Osteoporotic Spine: Fixation Challenges and Solutions, 19<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Istanbul, Turkey, July 21<sup>st</sup>, 2012
- 63. Yaszemski, MJ: My Worst Complication and Strategies to Prevent/Manage Tumor, IMAST 20<sup>th</sup> Meeting, Vancouver, BC, Canada. July 11, 2013.
- 64. Yaszemski, MJ: Management of Primary Spine Tumors, IMAST 20<sup>th</sup> Meeting, Vancouver, BC, Canada. July 11, 2013
- 65. Yaszemski, MJ: Progress in Biomedicine & e-Health, Prescription for Poland, Vail, Europe, July 28, 2013
- 66. Yaszemski MJ: Evaluation and Treatment of Primary Sacropelvic Tumors. 8<sup>th</sup> Annual International Huashan Hospital, Fudan University-Mayo Clinic Spine Course, Shanghai, China, October 31, 2013
- 67. Babaei F, Parry J, Kok P, Kakar S, Lam YW, Yaszemski MJ, and Dadsetan M: Osteochondral Defect Fepair Using a Biomimetic Hydrogel. Cartilage and Disc Repair and Regeneration Meeting, Davos, Switzerland, June 17, 2014
- 68. Yaszemski MJ: Bedside to Bench and Back: Tissue Engineering Strategies to Address Bone Defects. 5<sup>th</sup> International Aegean Conference on Tissue Engineering, Kos, Greece, June 23, 2014

- 69. Yaszemski, MJ: Decision Making for Sacrectomy versus Partial Sacrectomy International Meeting on Advanced Spine Techniques, Valencia, Spain, July 17, 2014
- 70. Nguyen, E., Kralovec, M., Gabriel, S., Yaszemski, M., Nassr, A.: Intra-operative CT myelography for emergent surgical management of spinal cord or cauda equina compression. Annual Meeting S.P.I.N.E., Beirut, Lebanon. August 20-23, 2014
- 71. Yaszemski MJ: Complex Spinopelvic Reconstruction after Sacral Tumor Resection. 9<sup>th</sup> Annual Mayo Clinic Spine Center: Medical and Surgical Spine Course. Mayo Clinic Education Center, Phoenix, AZ, January 16, 2015
- 72. Yaszemski MJ: Spine and Pelvic Infection Case Presentations. 9<sup>th</sup> Annual Mayo Clinic Spine Center: Medical and Surgical Spine Course. Mayo Clinic Education Center, Phoenix, AZ, January 17, 2015
- 73. Yaszemski MJ: Osteoporosis: Surgical Specific Issues. 9<sup>th</sup> Annual Mayo Clinic Spine Center: Medical and Surgical Spine Course. Mayo Clinic Education Center, Phoenix, AZ, January 17, 2015
- 74. Chu B, Spinner R, Molina Lopez VH, Hu S, Yaszemski MJ, Windebank A, Wang H: Schwann Cell Transfer: Does Source and Passage Matter? Annual Meeting of the American Society for Peripheral Nerve, Paradise Island, Bahamas, January 23-25, 2015 (poster)
- 75. Yaszemski MJ: Evaluation and Management of Primary Tumors of the Mobile Spine. Annual Meeting of the Southern German Orthopaedic Association, Baden-Baden, Germany, April 30, 2016

## **INVITED LECTURES**

- 1. Yaszemski MJ: The Anatomy and Function of the Intrinsic and Extrinsic Motors of the Fingers, Orthopaedic Grand Rounds, Beth Israel Hospital, Harvard Medical School, Boston, MA, February 21, 1990
- 2. Yaszemski MJ: Novel Polymeric Biomaterials for Use in Orthopaedic Surgery, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, Texas, October 9, 1992
- 3. Yaszemski MJ: Novel Polymeric Biomaterials for Use in Orthopaedic Surgery, 11<sup>th</sup> Annual Symposium of the Houston Bioengineering Society, University of Houston, Houston, TX, February 11, 1993
- 4. Yaszemski MJ: A Temporary Replacement for Trabecular Bone: The Design, Synthesis, and Mechanical Testing of a Novel Degradable Polymeric Biomaterial, Orthopaedic Grand Rounds, Methodist Hospital, Baylor College of Medicine, Houston, TX, February 12, 1993
- 5. Yaszemski MJ: Clinical Orthopaedic Biomechanics and Biomaterials, Biomechanics Symposium funded by Orthopaedic Research and Education Foundation, Dwight D. Eisenhower Army Medical Center and Medical College of Georgia, Augusta, GA, May 14-15, 1993
- 6. Yaszemski MJ: Experimental Design and Statistical Analysis of Experiments, Biomechanics Symposium funded by Orthopaedic Research and Education Foundation, Dwight D. Eisenhower Army Medical Center and Medical College of Georgia, Augusta, GA, May 14-15, 1993

- 7. Yaszemski MJ: Bone Reconstruction and Regeneration, Lecture given at the first Advances in Tissue Engineering course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 5, 1993
- 8. Yaszemski MJ: Clinical Considerations in Surgical Decisions Regarding Selection of Materials for Total Joint Replacement, C. William Hall Seminar Series of the Center for the Enhancement of the Biology-Biomaterials Interface, University of Texas Health Science Center at San Antonio, San Antonio, TX, December 10, 1993
- 9. Yaszemski MJ: Bone Regeneration, Combined Clinical-Research Seminar Series, Department of Orthopaedic Surgery, Beth Israel Hospital/Harvard Medical School, Boston, MA, April 4, 1994
- Yaszemski MJ: The Design, Synthesis, Characterization, and Mechanical Testing of a Novel Degradable Polymeric Biomaterial for Orthopaedic Applications, Department of Chemical Engineering Seminar, Massachusetts Institute of Technology, Cambridge, MA, April 4, 1994
- 11. Yaszemski MJ: Bone Regeneration and Reconstruction, First Annual Texas Total Joint Roundup Hip and Knee Arthroplasty Course, San Antonio, TX, April 9, 1994
- 12. Yaszemski MJ: Bone Repair, Regeneration, and Reconstruction, 2<sup>nd</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 4, 1994
- 13. Yaszemski MJ, and Mikos AG: Degradable Polymers with Osteoblast Transplantation as Strategies for Bone Tissue Engineering, Fifth Engineering Foundation Conference on Cell Culture Engineering, San Diego, CA, January 30, 1996
- 14. Yaszemski MJ: Wound Healing, Annual Meeting of the Undersea Hyperbaric Medical Society, Gulf Coast Chapter, San Antonio, TX, March 24, 1996
- 15. Yaszemski MJ: Bone Regeneration using Degradable Polymers, Society of Air Force Clinical Surgeons 43<sup>rd</sup> Annual Meeting, San Antonio, TX, April 4, 1996
- 16. Yaszemski MJ: Bone Regeneration, Lecture given at the 4<sup>th</sup> Annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 9, 1996
- 17. Yaszemski MJ: Tissue Engineering in Orthopedic Surgery, Biomedical Engineering Seminar Series, University of Minnesota, Minneapolis, MN, November 12, 1996
- 18. Yaszemski MJ: Skeletal Tissue Engineering, FDA Advisory Panel on Orthopaedic Devices, Gaithersburg, MD, March 7, 1997
- 19. Yaszemski MJ: Tissue Engineering Strategies for Orthopaedic Applications, FDA Staff College, Center for Devices and Radiologic Health, Rockville, MD, April 8, 1997
- 20. Yaszemski MJ: The Evaluation and Treatment of Lumbar Radiculopathy, AAPA's 25<sup>th</sup> Annual Physician Assistant Conference, Minneapolis, MN, May 24-29, 1997
- 21. Yaszemski MJ: Molecular, Cellular and Tissue Strategies to Engineer Human Bone, 5<sup>th</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 14, 1997
- 22. Yaszemski MJ: Molecular, Cellular and Tissue Strategies to Engineer Human Bone, 6<sup>th</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 20, 1998

- 23. Yaszemski MJ: Clinical Applications of Orthopaedic Tissue Repair Technologies, Royal Society of Medicine, London, England, November 23, 1998
- 24. Yaszemski MJ: Bone Tissue Engineering, 7<sup>th</sup> Annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 26, 1999
- 25. Yaszemski MJ: Mechanical Properties of Shape Specific Scaffolds for Bone Tissue Engineering, Ecole Polytechnique Federale Lausanne (Swiss Federal Institute of Technology), Lausanne, Switzerland, September 8, 1999
- 26. Yaszemski MJ: Evaluation and Management of Metastatic Disease of the Spine, Society of Military Orthopaedic Surgeons, 41<sup>st</sup> Annual Meeting, Williamsburg, VA, October 27, 1999
- 27. Yaszemski MJ: Clinical Needs for Bone Tissue Engineering Technology, Bone Engineering Workshop, University of Toronto, Toronto, Ontario, Canada, December, 1999
- 28. Yaszemski MJ: Clinical Needs for Bone Tissue Engineering, 8<sup>th</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 14, 2000
- 29. Yaszemski MJ, and Lu L: Synthetic Biodegradable Polymer Scaffolds for Cartilage Tissue Engineering, Association of Bone and Joint Surgeons, Articular Cartilage Repair 2000 Workshop, Tampa, Fl, November 11, 2000
- 30. Yaszemski MJ and Lu L: Bone Tissue Engineering: the Clinical Perspective, The Art of Tissue Engineering Congress 2000, University Medical Center Utrecht and Twente University, Utrecht, Netherlands, November 17, 2000
- 31. Yaszemski MJ: Musculoskeletal Tissue Engineering, Materials Research Society Annual Meeting, Boston, MA, November 28, 2000
- 32. Yaszemski MJ: Musculoskeletal Tissue Engineering: Translation from the Laboratory to the Care of the Patient, Invited lead presentation, Special Symposium on Scaffolding Materials for Bone Tissue Engineering, Society for Biomaterials 27<sup>th</sup> Annual Meeting, St. Paul, MN, April 29th, 2001
- 33. Yaszemski MJ: Fraturas da Coluna Toraco Lombar (Thoracolumbar fractures), Congresso do Instituto de Ortopedia e Traumatologia (CIOT), University of Sao Paolo, Sao Paolo, Brazil, May 18, 2001
- 34. Yaszemski MJ: Engenharia do Tecido Osseo (Bone Tissue Engineering), Congresso do Instituto de Ortopedia e Traumatologia (CIOT), University of Sao Paolo, Sao Paolo, Brazil, May 19, 2001
- 35. Yaszemski MJ: Tratamento das Metastases na Coluna Vertebral (Treatment of Spinal Metastases), Congresso do Instituto de Ortopedia e Traumatologia (CIOT), University of Sao Paolo, Sao Paolo, Brazil, May 19, 2001
- 36. Yaszemski MJ and Lu L: Animal Models for Musculoskeletal Tissue Engineering Applications, 9<sup>th</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 19, 2001
- 37. Yaszemski MJ: Clinical and Regulatory Considerations in Bone Tissue Engineering, Third Annual Techvest Conference, New York, NY, October 23, 2001
- 38. Yaszemski MJ: Flatback Syndrome: Evaluation, Indications, Techniques and Complications, Advanced Techniques and Current Concepts in Spine Surgery #3382,

- Currier BL, and Rechtine II GR, Course Chairmen; Orthopaedic Learning Center, Rosemont, IL, November 18, 2001
- 39. Yaszemski MJ: Pedicle Subtraction Osteotomy, Lecture and Cadaver Video Demonstration. Advanced Techniques and Current Concepts in Spine Surgery #3382, Currier BL, and Rechtine II GR, Course Chairmen; Orthopaedic Learning Center, Rosemont, IL, November 18, 2001
- 40. Yaszemski MJ: The Evaluation and Management of Thoracolumbar Spine Trauma, 43<sup>rd</sup> Annual Meeting of the Society of Military Orthopaedic Surgeons, Vail, CO, December 11, 2001
- 41. Yaszemski MJ: The Evaluation and Management of Metastatic Disease of the Spine, Instructional Course Lecture, American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, Feb. 14, 2002
- 42. Yaszemski MJ and Talac R: The Biocompatibility of Polymeric Biomaterials, Invited lead presentation, Special Symposium on Implant Pathology of Plastics, Society for Biomaterials 28<sup>th</sup> Annual Meeting, Tampa, FL, April 27<sup>th</sup>, 2002
- 43. Yaszemski MJ, Lu L, and Talac R: Animal Models for Evaluation of Tissue Engineered Devices, 10<sup>th</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Department of Chemical Engineering, Rice University, Houston, TX, August 14, 2002
- 44. Yaszemski MJ: The FDA Advisory Panel Process. SICOT/SIROT Panel Session-The American FDA and the Orthopaedic Surgeon: Regulation of Orthopaedic Devices, San Diego, CA, August 29, 2002
- 45. Yaszemski MJ and Mikos AG: Injectable Polymers and Hydrogels for Orthopaedic and Dental Applications, American Academy of Orthopaedic Surgeons/National Institutes of Health Tissue Engineering in Musculoskeletal Clinical Practice Workshop, Santa Fe, New Mexico, January 16-19, 2003
- 46. Yaszemski MJ, Kim C, Talac R, and Currier BL: The Evaluation and Management of Metastatic Disease of the Spine, Instructional Course (#305) Lecture, American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 7, 2003
- 47. Yaszemski MJ: Evaluation and Management of Primary and Metastatic Tumors of the Spine and Sacrum, Department of Surgery Grand Rounds, Memorial Sloan-Kettering Cancer Center, New York, NY, March 3, 2003
- 48. Yaszemski MJ: Perspectives from an Advisory Panel Chair, FDA Advisory Committee Executive Secretary Symposium: Communication Across Centers, Gaithersburg, MD, July 14, 2003
- 49. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 11<sup>th</sup> annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Center for Excellence in Tissue Engineering, Rice University, Houston, TX, August 16, 2003
- 50. Yaszemski MJ: Research Opportunities in the United States for Orthopaedic Residents, Fellows, and Junior Faculty Members, Second meeting of the ASG Ausbildungsakademie, University of Münster, Münster, Germany, November 11, 2003
- 51. Yaszemski MJ, Kim C, Talac R, and Currier BL: The Evaluation and Management of Metastatic Disease of the Spine, Instructional Course Lecture #165, American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 10, 2004

- 52. Yaszemski MJ, Kirkpatrick J, and Lyons JC: Whiplash- The Distinction Between Disc Decay and Traumatic Disc Injury: How to Tell the Difference and the Importance to Treatment and Legal Inquiries, Instructional Course Lecture #135, American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 10, 2004
- 53. Yaszemski MJ: Biodegradable Polymeric Scaffolds for Musculoskeletal Tissue Engineering: Linking Clinical Needs to Polymer Technology, Keynote Lecture, Strategies in Tissue Engineering Kongress, Würzburg, Germany, June 18, 2004
- 54. Yaszemski MJ: Biodegradable Polymeric Scaffolds for Musculoskeletal Tissue Engineering: Bedside to Bench and Back, MIT-DuPont Research Alliance Lecture Series, DuPont Experimental Station, Wilmington, DE, July 19, 2004
- 55. Yaszemski MJ and Lu L: Animal Models for Evaluation of Tissue Engineered Devices, 12<sup>th</sup> Annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Center for Excellence in Tissue Engineering, Rice University, Houston, TX, August 14, 2004
- 56. Yaszemski MJ: The Development and Effects of Lifelong Mentoring, First Annual Spine Symposium honoring Augustus A. White, III, M.D., Ph.D.: Past Perspectives and Future Challenges in Spine Biomechanics and Surgery: Collaborative Work with Dr. Augustus A. White. Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, October 13, 2004
- 57. Yaszemski MJ: Spinopelvic Reconstruction Following Total Sacrectomy, Annual Meeting of the German Orthopaedic Association (Deutscher Orthopädenkongress), Berlin, Germany, October 22, 2004
- 58. Yaszemski MJ: The Clinician-Scientist: An Oxymoron? Plenary Session, 12<sup>th</sup> Combined Meeting of the Orthopaedic Associations of the World, Sydney, Australia, October 27, 2004
- 59. Yaszemski MJ: Porous Metal as a Scaffold for Antibiotic Delivery from a Synthetic or Natural Polymer, Association of Bone and Joint Surgeons, Carl T. Brighton Annual Workshop, Musculoskeletal Infection, Tampa, FL, November 14, 2004
- 60. Yaszemski MJ and Sim FH: Spinopelvic Reconstruction Following Lumbo-sacro-pelvic Resection for Cancer, Musculoskeletal Tumor Society Specialty Day, 2005 Annual Meeting of the American Academy of Orthopaedic Surgeons, Washington, DC, February 26, 2005
- 61. Yaszemski MJ: Injectable Osteoinductive Biodegradable Composites (EB003060-01, NIBIB), Annual grantee progress meeting, National Institute of Bioimaging and Biomedical Engineering, Washington, DC, August 8, 2005
- 62. Yaszemski MJ: Biodegradable Polymer Implants for Spinal Cord Repair (EB02390 NIBIB), Annual grantee progress meeting, National Institute of Bioimaging and Biomedical Engineering, Washington, DC, August 8, 2005
- 63. Yaszemski MJ and Lu L: Animal Models for Evaluation of Tissue Engineered Devices, 13<sup>th</sup> Annual Advances in Tissue Engineering Course, Institute of Biosciences and Bioengineering, Center for Excellence in Tissue Engineering, Rice University, Houston, TX, August 13, 2005
- 64. Yaszemski MJ: Sacral Tumors Surgical Treatment and Spinopelvic Reconstruction, Gdansk University School of Medicine, Gdansk, Poland, September 29, 2005
- 65. Yaszemski MJ and Carlton PK: Academic Health Center Department of Defense medical collaboration. IEEE International Conference on Technologies for Homeland

- Security and Safety, Gdansk University of Technology, Gdansk, Poland, September 30, 2005
- 66. Yaszemski MJ, and Panagis J: Navigating the NIH. Instructional Course: Research Grant Writing, Scoliosis Research Society Annual Meeting, Miami, FL, 29 October 2005
- 67. Yaszemski MJ: Air Mobility Command Contributions to Joint Operations, Association of Military Surgeons of the United States Annual Meeting, Nashville, TN, October 31, 2005
- 68. Yaszemski MJ: Bone, Cartilage, and Nerve Tissue Engineering for Craniofacial Reconstruction, Defense Advanced Research Projects Administration (DARPA) Virtual Face II Workshop, Arlington, VA, December 14-16, 2005
- 69. Yaszemski MJ: The FDA Approval Process: Differences between the Center for Devices and Radiologic Health (CDRH) and the Center for Drug Evaluation and Research (CDER) Mechanisms, American Orthopaedic Association's 119<sup>th</sup> Annual Meeting, San Antonio, TX, June 22, 2006
- 70. Lu L and Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 14<sup>th</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August, 2006
- 71. Yaszemski MJ: Operative Treatment of Metastasis of the Spine, Deutscher Kongress für Orthopädie und Unfallchirurgie, Berlin, Germany, October 3, 2006
- 72. Yaszemski MJ: The Regulatory Cost Associated with Bringing Novel Treatments to Clinical Practice: The role of the FDA, Third Annual Augustus A. White III, M.D., Ph.D. Spine Symposium, Beth Israel-Deaconess Hospital, Harvard Medical School, Boston, MA, October 11, 2006
- 73. Yaszemski MJ: The Air Force Theater Hospital in Balad, Iraq: A Reservist's Perspective, Association of Military Surgeons of the United States Annual Meeting, San Antonio, TX, November 6, 2006
- 74. Yaszemski MJ and Levine AM: Surgery or Radiation Therapy as Primary Treatment for Metastatic Disease of the Spine: A Point-counterpoint Debate (AML: surgery, MJY: radiation), Symposium 31: Controversies in the Management of Metastases to Bone. 74<sup>th</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, San Diego, CA, February 15, 2007
- 75. Yaszemski MJ: Musculoskeletal War Injuries: New Surgical Reconstructive Challenges Motivate Novel Biomaterial Strategies, Society for Biomaterials 2007 Annual Meeting, Chicago, IL, April 21, 2007
- 76. Yaszemski MJ: Tissue Engineering of Bone: Material and Matrix Considerations, American Academy of Orthopaedic Surgeons 2007 Research Symposium, Fracture Repair: Challenges and Opportunities, Miami, FL, April 26, 2007
- 77. Lu L and Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 15<sup>th</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August 18, 2007
- 78. Yaszemski MJ: Musculoskeletal Tissue Engineering and Controlled Delivery of Anticancer Agents, 65<sup>th</sup> Birthday Symposium in honor of M.S. El-Aasser, Ph.D., Lehigh University, Bethlehem, PA, November 3, 2007
- 79. Yaszemski MJ: Science at FDA: Challenges and Opportunities: Optimization of Scientific Input to the FDA in the Regulation of Regenerative Medicine Treatments, Institute of Medicine's National Academy of Sciences' Forum on Drug Discovery, Development, and Translation, Washington, DC, April 21, 2008

- 80. Yaszemski MJ: The FDA Role in the Regulatory Cost of Bringing Novel Treatments to Clinical Practice, University of Minnesota's Design of Medical Devices Conference, University of Minnesota, Minneapolis, MN, April 15, 2008
- 81. Yaszemski MJ: Reconstruction Following Lumbopelvic Resections, Henry Ford Hospital Grand Rounds, Detroit Michigan, May 7, 2008
- 82. Yaszemski MJ: Reconstruction Following Lumbopelvic Resections, Symposium in honor of Professor Jochen Eulert, König Ludwig Haus, Universität Würzburg, Würzburg, Germany, July 5, 2008
- 83. Yaszemski, MJ: Biomaterials, Tissue engineering and drug delivery in musculoskeletal regenerative medicine, Defense Science Board, Washington DC, July 30, 2008
- 84. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 16<sup>th</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August 16, 2008
- 85. Yaszemski MJ: Fumarate Ester Technology for Regenerative Medicine, Plenary Session, The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 30, 2008
- 86. Yaszemski MJ: Trauma Care Delivery and Battlefield Injuries Seen at the Air force Theatre Hospital in Balad, Iraq, The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 29, 2008
- 87. Yaszemski MJ and Griffith: Session 6 Parallel Synergy Work Groups, Sterilization methods for biological and polymeric scaffolds, Armed Forces Institute of Regenerative Medicine (AFIRM), Saint Pete Beach, FL, January 14, 2009
- 88. Yaszemski MJ: Session 6 Parallel Synergy Work Groups, Proactive planning for FDA review and approval of AFIRM materials and methods, Armed Forces Institute of Regenerative Medicine (AFIRM), Saint Pete Beach, FL, January 14, 2009
- 89. Yaszemski MJ: Bone Defects—Scaffolds, Session I: American Academy of Orthopaedic Surgeons (AAOS)/Orthopaedic Trauma Association (OTA)/Society of Military Orthopaedic Surgeons (SOMOS) Extremity War Injuries IV (EWI IV) Research Symposium, Washington, DC, January 22, 2009
- 90. Yaszemski MJ: Nerve Repair, Session I: American Academy of Orthopaedic Surgeons (AAOS)/Orthopaedic Trauma Association (OTA)/Society of Military Orthopaedic Surgeons (SOMOS) Extremity War Injuries IV (EWI IV) Research Symposium, Washington, DC, January 22, 2009
- 91. Yaszemski MJ: Spinopelvic reconstruction after musculoskeletal tumor resections. Uniformed Services University of Health Sciences, Bethesda, MD, February 12, 2009
- 92. Yaszemski MJ: Reconstruction following Lumbopelvic Resections, Uniformed Services University of Health Sciences, Bethesda, MD, February 12, 2009
- 93. Biermann JS, Holt GE, Lewis VO, Schwartz HS, Yaszemski, MJ: Metastatic Bone Disease: Diagnosis, Evaluation and Treatment, Instructional Course Lecture, American Academy of Orthopaedic Surgeons 76<sup>h</sup> Annual Meeting, Las Vegas, NV, February 26, 2009
- 94. Yaszemski MJ: Osteoconductive Scaffolds, American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting Symposium: Bone Defects-When are Orthobiologics Indicated?, Las Vegas, NV, February 27, 2009
- 95. Yaszemski MJ: Polymeric Scaffolds for Osseous Defect Repair, Kappa Delta Elizabeth Wilson Lanier Award Presentation, American Academy of Orthopaedic Surgeons

- (AAOS)/Orthopaedic Research Society (ORS) Meeting, Las Vegas, NV, February 24, 2009
- 96. Yaszemski MJ: Metastatic Bone Disease: Diagnosis, Evaluation and Treatment, Instructional Course Lecture, American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas, NV, February 26, 2009
- 97. Yaszemski MJ: Key Note Speaker, Tissue Engineering Strategies for Musculoskeletal Regenerative Medicine in Civilian and Military Applications, 4<sup>th</sup> Annual Stem Cells Congress, San Francisco, CA, February 26, 2009
- 98. Yaszemski MJ: Caring for our Wounded Warriors: The Armed Forces Institute of Regenerative Medicine (AFIRM), Uniformed Services University of the Health Sciences, Bethesda, MD, March 24, 2009
- 99. Yaszemski MJ: The Air Force Theater Hospital Balad, Uniformed Services University of the Health Sciences, Bethesda, MD, March 24, 2009
- 100. Yaszemski MJ: Tissue Engineering Strategies for Nerve Regeneration, Uniformed Services University of the Health Sciences, Bethesda, MD, March 24, 2009
- 101. Yaszemski MJ: Military Health System Traveling Fellowship Program, V.I.P. Group, Mayo Health System Interfaces, Mayo Clinic, April 15, 2009
- 102. Yaszemski MJ: Spinopelvic Reconstruction Following Lumbosacral Pelvic tumor Resection. 19<sup>th</sup> Annual Research Day, Cleveland Clinic, Cleveland, OH, June 4, 2009
- 103. Yaszemski MJ: Musculoskeletal Tissue Engineering. Orthopaedic Surgery residents' graduation visiting professor lecture, Cleveland Clinic, Cleveland, OH, June 5, 2009
- 104. Yaszemski MJ: FOCI Academe Meeting (Forum on Conflict of Interest in Academe), Implementing Conflict of Interest Policies in Clinical Practice at Mayo Clinic, Boston, MA, June 29, 2009
- 105. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 17<sup>th</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August 15, 2009
- 106. Yaszemski MJ: Plenary Session: Tomorrow's Medicine, Musculoskeletal Regenerative Medicine: Bone and Nerve Tissue Engineering, Department of Defense Third Military Health Research Forum (MHRF), Kansas City, MO, September 2, 2009
- Yaszemski MJ: Musculoskeletal Tissue Engineering, Keio University School of Medicine, Tokyo, Japan, November 9, 2009
- 108. Yaszemski MJ: Spinopelvic Reconstruction Following Lumbosacropelvic Tumor Resection, Presidential Guest Lecturer, Japanese Spinal Instrumentation Society 18<sup>th</sup> Annual Meeting, Tokyo, Japan, November 13, 2009
- 109. Yaszemski MJ: Caring for our Wounded Warriors: The Armed Forces Institute of Regenerative Medicine (AFIRM), Association of Military Surgeons of the United States 115<sup>th</sup> Meeting, St. Louis, MO, November 17, 2009
- 110. Yaszemski MJ: Standards for Orthopaedic Surgery: An End Users Perspective, AFIRM Standardization Meeting, Atlanta, GA, November 19, 2009
- 111. Yaszemski MJ: The Wounds of War: Musculoskeletal Injuries in Iraq and Afghanistan. First External Advisory board Meeting, Georgia Tech Center for Advanced Bioengineering for Soldier Survivability, Georgia Institute of Technology, Atlanta, GA January 7, 2010
- 112. Yaszemski MJ: Biomechanics of Spinopelvic Reconstruction. Sacral Tumor Study Group, Memorial Sloan Kettering Cancer Center, New York, NY, January 9, 2010

- 113. Yaszemski MJ: Limb Lengthening and Reconstruction Society, ASAMI-North America, American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting Specialty Day, Advances in Bone Regeneration, New Orleans, LA, March 13, 2010
- 114. Yaszemski MJ: Tissue Engineering and Regenerative Medicine of Bone and Nerve. University of Colorado at Colorado Springs, CO, March 19, 2010
- 115. Yaszemski MJ: Conflict of Interest in Clinical Practices, Focus on Conflict of Interest in Academe Annual Meeting, Chicago, IL, April 26, 2010
- 116. Yaszemski MJ: Biomedical Engineering of Tools for Regenerative Medicine. American Physiological Society's Experimental Biology 2010 Physiology in Focus Symposium. Anaheim, CA, April 28, 2010
- 117. Yaszemski MJ: Restorative Medicine: Mayo Clinic and Rutgers-Cleveland Clinic AFIRM, Restorative medicine Workshop, Natal Station, Norfolk, VA May 4, 2010
- 118. Yaszemski MJ: Ackerman Lecture sponsored by the Departments of Biomedical Engineering and Orthopaedics, Deans' Offices (Schools of Medicine and Engineering), and the Provost, Spinopelvic sarcoma clinical management and bone tissue engineering strategies for reconstruction, 17<sup>th</sup> Annual Lauren Ackerman Memorial Lecture, State University of New York at Stony Brook, Stony Brook, NY, May 19, 2010
- 119. Yaszemski MJ: Integrity. Commencement address given to the 87<sup>th</sup> graduating cadet class at the Valley Forge Military Academy and College, Wayne, PA, June 5, 2010.
- 120. Yaszemski MJ: Value optimization for patients in integrated medical systems. Closing Keynote Speaker. Veterans Administration National Planning Conference, Crystal City, VA, July 15, 2010
- 121. Yaszemski MJ: Animal Models for the Evaluation of Tissue Engineered Devices. 18<sup>th</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August 14, 2010
- 122. Yaszemski MJ: PRORP Orthopaedic Clinical Consortium Award Informational Meeting, Peer Reviewed Orthopaedic Research program Rehabilitation Consortium Meeting, Leesburg, VA, September 13, 2010
- 123. Yaszemski MJ: Spinopelvic Reconstruction Following Lumbosacropelvic Tumor Resection, Tongji Hospital 110<sup>th</sup> Anniversary Symposium, Wuhan, China, October 17, 2010.
- 124. Yaszemski MJ: Spinopelvic Reconstruction Following Lumbosacropelvic Tumor Resection, Huashan Hospital Spine Symposium, Fudan University, Shanghai, China, October 22, 2010
- 125. Yaszemski MJ: Musculoskeletal Regenerative Medicine, Keynote Speaker, Penn NIH P30 Center for Musculoskeletal Disorder 7<sup>th</sup> Annual Scientific Symposium/Retreat, University of Pennsylvania, Philadelphia, PA, November 17, 2010
- 126. Krevolin JL and Yaszemski MJ: The Theater of Innovation Two Perspectives, Orthopaedic Research Society/American Academy of Orthopaedic Surgeons Combined Symposium I, Overcoming Obstacles to Innovation, Long Beach, CA, January 14, 2011
- 126. Yaszemski MJ: Osteoconductive Scaffolds, Bone Defects: When are Orthobiologics Indicated? American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 18, 2011
- 127. Yaszemski MJ: Musculoskeletal Regenerative Medicine, Lehigh University, Bethlehem, PA, March 2, 2011

- 128. Yaszemski MY: Musculoskeletal Tissue Engineering, Wake Forest University, School of Medicine, Institute for Regenerative Medicine, Winston-Salem, NC, March 14, 2011
- 129. Yaszemski MJ: Musculoskeletal Tissue Engineering, Stanford University School of Medicine, Department of Orthopaedic Surgery Research Day, Palo Alto, CA, March 26, 2011
- 130. Ficke JR and Yaszemski MJ: Orthopaedic Trauma Reconstruction: Our Greatest Challenges, Society for Biomaterials 2011 Annual Meeting, Orlando, FL, April 16, 2011
- 131. Yaszemski MJ: Animal Models for Evaluation of Tissue-engineered Devices, 19<sup>th</sup>
  Annual Advances in Tissue Engineering Meeting, Rice University, Houston, Texas,
  August 13, 2011
- 132. Yaszemski MJ: Clinical Evaluation and Treatment of Spinal Metastatic Disease, Department of Orthopaedics and Traumatology, University of Hong Kong, 50<sup>th</sup> Anniversary International Orthopaedic Forum, Hong Kong, China, August 19-21, 2011
- 133. Yaszemski MJ: Resection and Reconstruction of Sacropelvic Tumors, Department of Orthopaedics and Traumatology, University of Hong Kong, 50<sup>th</sup> Anniversary International Orthopaedic Forum, Hong Kong, China, August 19-21, 2011
- 134. Yaszemski MJ: Neurologic Regenerative Medicine, 1<sup>st</sup> Department of Orthopaedic Surgery, University of Athens School of Medicine, Athens, Greece, May 30, 2011
- 135. Yaszemski MJ: Spinopelvic Tumors: Resection and Reconstruction, 1<sup>st</sup> Department of Orthopaedic Surgery, University of Athens School of Medicine, Athens, Greece, May 30, 2011
- 136. Yaszemski MJ: Spinal Osteoporosis Management, 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 15, 2011
- 137. Yaszemski MJ: Biomaterials Based Strategies for Bone Tissue Engineering, Department of Orthopaedics and Traumatology, University of Hong Kong, 50<sup>th</sup> Anniversary International Orthopaedic Forum, Hong Kong, China, August 18, 2011.
- 138. Yaszemski MJ: Resection and Reconstruction of Sacropelvic Tumors, General Orthopaedics and Oncology Session, 50<sup>th</sup> Anniversary of the Department of Orthopaedics and Traumatology, The University of Hong Kong, 8<sup>th</sup> Hong Kong International Orthopaedic Forum, Hong Kong, China, August 19, 2011
- 139. Yaszemski MJ: Clinical Evaluation and Treatment of Spinal Metastatic Disease, General Orthopaedics and Oncology Division, 50<sup>th</sup> Anniversary of the Department of Orthopaedics and Traumatology, The University of Hong Kong, 8<sup>th</sup> Hong Kong International Orthopaedic Forum, Hong Kong, China, August 20, 2011
- 140. Yaszemski MJ: Advances in Spinal Cord Regeneration, Spine Division, 50<sup>th</sup> Anniversary of the Department of Orthopaedics and Traumatology, The University of Hong Kong, 8<sup>th</sup> Hong Kong International Orthopaedic Forum, Hong Kong, China, August 21, 2011
- 141. Yaszemski MJ: Neuroprotection Against Secondary Spinal Cord Injury, Spine Division, 50<sup>th</sup> Anniversary of the Department of Orthopaedics and Traumatology, The University of Hong Kong, 8<sup>th</sup> Hong Kong International Orthopaedic Forum, Hong Kong, China, August 21, 2011
- 142. Yaszemski MJ: Biomaterials Based Strategies for Bone Tissue Engineering, Musculoskeletal Tumor and Spinal Surgery Departments, Peking University People's Hospital, Beijing, China, August 25, 2011

- 143. Yaszemski MJ: Clinical Evaluation and Treatment of Spinal Metastatic Disease, Musculoskeletal Tumor Department, Peking University People's Hospital, Beijing, China, August 25, 2011
- 144. Yaszemski MJ: Adult Degenerative Deformity surgery in the Osteoporotic Spine: Pitfalls, Complications, and Basic Surgical Techniques, Scoliosis Research Society, 46<sup>th</sup> Annual Meeting Pre-course, Louisville, KY, September 14, 2011
- 145. Yaszemski MJ: Scholarly and Professional Careers, American Academy of Orthopaedic Surgeons, Orthopaedic Research and Education Foundation, Orthopaedic Research Society, Clinical Scholar Development Program, Rosemont, IL October 17, 2011
- 146. Yaszemski MJ: The Role of the Department of Defense Funding Agencies in Medical Research, American Academy of Orthopaedic Surgeons, Orthopaedic Research and Education Foundation, Orthopaedic Research Society, Clinical Scholar Development Program, Rosemont, IL October 17, 2011
- 147. Yaszemski, MJ: Building a Successful Research Program: Decisions, Victories and Pitfalls. Workshop 10, Orthopaedic Research Society 58<sup>th</sup> Annual Meeting, San Francisco, CA, February 6, 2012
- 148. Yaszemski, MJ: Complex Spino-Pelvic Reconstruction after Sacral Resection. 7<sup>th</sup> Annual Mayo Clinic Spine Symposium, Naples, FL, March 28, 2012
- 149. Yaszemski, MJ: Sacro-spino-pelvic Tumor Resection and Reconstruction. University of Florida Orthopaedic Department, Jacksonville, Florida, March 30, 2012
- 150. Yaszemski, MJ: Medical Research Careers. Mayo Clinic Young Investigators Research Symposium, Rochester, Minnesota, 31 March 2012
- 151. Yaszemski, MJ: Critical Care Aeromedical Transport and Evacuation. Minnesota Airports Association Airports Conference, Mayo Civic Center, 11 April 2012
- 152. Yaszemski, MJ: Musculoskeletal Tissue Engineering. Neural Prosthesis Seminar, Case Western Reserve University, April 13, 2012
- 153. Yaszemski, MJ: Keynote Lecture: Musculoskeletal Tissue Engineering. International Conference VAIL Europe 2012, Wroclaw, Poland, May 23, 2012
- 154. Yaszemski, MJ: Multidisciplinary Collaboration in Regenerative Medicine. International Conference VAIL Europe 2012, Wroclaw, Poland, May 23, 2012
- 155. Yaszemski, MJ: Systems Engineering for Value Optimization in Integrated Medical Systems. Тенопільський національний економічний університет (Department for Information Computer Systems and Control), Ternopil National Economic University Ternopil, Ukraine, 28 May 2012
- 156. Yaszemski, MJ: Sacro-spino-pelvic Tumor Resection and Reconstruction. (Horbachevsky Ternopil State Medical University), Ternopil, Ukraine, May 28, 2012
- 157. Yaszemski MJ: Animal Models for Evaluation of Tissue-engineered Devices, 20<sup>th</sup> Annual Advances in Tissue Engineering Meeting, Rice University, Houston, Texas, August 11, 2012
- 158. Yaszemski MJ: Management of Spinopelvic Sarcomas, Colorado State University Animal Cancer Center, Fort Collins, CO, October 1, 2012.
- 159. Yaszemski MJ: Translational Osteosarcoma Research: Bedside to Bench and Back. AAOS/OREF/ORS Clinical Scholarship Development Program, Rosemont, IL, October 8, 2012
- 160. Yaszemski MJ: Orthopaedic Research Society, Funding Collaboration Webinar, Rochester, MN, October 12, 2012

- 161. Yaszemski MJ: Evaluation and Treatment of Spinopelvic Sarcoma, Brooke Army Medical Center, San Antonio, TX, October 26, 2012
- 162. Yaszemski MJ: The United States Military Investment in Regenerative Medicine, World Stem Cell Summit, West Palm Beach, FL, December 5, 2012
- 163. Yaszemski MJ: Spinal Implant Biomaterials Engineering, University of Rochester Medical Center Spine Study Group Meeting, Rochester, NY, April 17, 2013.
- 164. Yaszemski, MJ: Musculoskeletal Tissue Engineering and Regenerative Medicine, University of Rochester Medical Center Orthopaedic Grand Rounds, Rochester, NY, April 18, 2013
- 165. Yaszemski, MJ: Needs Revealed by Clinical Research Experience, Standards and Measurements for Tissue Engineering Scaffolds: What Do We Need Workshop, American Society for Testing and Materials, Indianapolis, IN, May 21, 2013.
- 166. Yaszemski, MJ: Leadership through Philanthropy, AOA Leadership Forum, Denver, CO, June 12, 2013
- 167. Yaszemski MJ: Impact of Tissue Engineering on Orthopedics: Forging the Link between Laboratory Research and Clinical Practice, National Institute of Biomedical Imaging and Bioengineering, Bethesda, MD, June 26, 2013
- 168. Larson AN, Polly Jr. DW, Ashraf A, Baghdadi YM, and Yaszemski MJ: Minimum 20-Year Health Related Quality of Life and Subsequent Surgical Rates for Braced, Observed, and Surgical Patients Treated for Adolescent Idiopathic Scoliosis in the US. 20th International Meeting on Advanced Spine Techniques (IMAST), Vancouver, BC, Canada, July 11, 2013
- 169. Yaszemski MJ: My Worst Tumor Complication. 20<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Vancouver, BC, Canada, July 11, 2013
- 170. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 21<sup>st</sup> Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August 17, 2013
- 171. Yaszemski, MJ: Surgical Treatment of Spinal Tumors, President's Invited Speaker, 3<sup>rd</sup> Spinal & Pelvic Tumors Training Course of Chinese Musculoskeletal Tumor Society, Beijing, China, August 24, 2013
- 172. Yaszemski, MJ: Surgical Treatment of Sacral Tumors, President's Invited Speaker 3<sup>rd</sup> Spinal & Pelvic Tumors Training Course of Chinese Musculoskeletal Tumor Society, Beijing, China, August 24, 2013
- 173. Yaszemski MJ: Evaluation and Management of Sacropelvic Tumors, Seoul St. Marys's Hospita, Seoul, China, August 26, 2013
- 174. Yazemski, MJ: The Role of Orthopaedics: Translational Research, 2013 AAOS/OREF/ORS Clinician Scholar Career Development Program, Rosemont, IL, Sept. 27, 2013
- 175. Yaszemski, MJ: The Role of the Department of Defense Funding Agencies in Medical Research, 2013 AAOS/OREF/ORS Clinician Scholar Career Development Program, Rosemont, IL, September 27, 2013
- 176. Yaszemski, MJ: Evaluation and Management of Tumors of the Spine, 55<sup>th</sup> Society of Military Orthopaedic Surgeons Annual Meeting, Vail, Colorado, December 13, 2013.
- 177. Yaszemski, MJ: Maximizing Your Practice's Potential in the New Health Care Environment. American Academy of Orthopaedic Surgeons, New Orleans, LA, March 11, 2014

- 178. Yaszemski MJ: Evaluation and Management of Sacropelvic Tumors, Texas Orthopaedic Association's 2014 Annual Conference, San Antonio, TX, April 12, 2014
- 179. Yaszemski MJ: Biomaterials Innovation: The Process to Bring New Implants to Patient Care: Bedside to Bench and Back. Keynote Speaker, Society for Biomaterials 2014 Annual Meeting and Exposition, Denver, CO. April 16, 2014
- 180. Yaszemski MJ: Evaluation and Management of Primary Tumors of the Mobile Spine, San Antonio Military Medical Center Omer Day, San Antonio, TX, April 25, 2014
- 181. Yaszemski MJ: Leadership. Keynote Speaker, University of Alabama at Birmingham Resident Graduation, Birmingham, AL, June 20, 2014
- 182. Yaszemski MJ: Tumors of the Mobile Spine. Keynote Speaker, University of Alabama at Birmingham Resident Graduation, Birmingham, AL, June 20, 2014
- 183. Yaszemski MJ: Bedside to Bench and Back: Tissue Engineering Strategies to Address Bone Defects, 5<sup>th</sup> International Conference on Tissue Engineering, Kos, Greece, June 23, 2014
- 184. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 22<sup>nd</sup>
  Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August
  16, 2014
- 185. Yaszemski, MJ: Surgical Treatment for Spinal Tumors, President's, 4th Spinal & Pelvic Tumors Training Course of Chinese Musculoskeletal Tumor Society, Beijing, China, August 30, 2014
- 186. Yaszemski, MJ: Lumbosacral Reconstruction after Tumor Resection, President's Invited Speaker, 4th Spinal & Pelvic Tumors Training Course of Chinese Musculoskeletal Tumor Society, Beijing, China, August 30, 2014
- 187. Yaszemski, MJ: Surgical Treatment Methods of Vertebral Tumors, Turkish Musculoskeletal Tumor Meeting, Ankara, Turkey, September 21, 2014
- 188. Yaszemski, MJ: Tissue Engineering and Regeration of Bone, Department of Biomedical Engineering Colloquium Series, Columbia University, New York, NY, October 17, 2014
- 189. Yaszemski, MJ: Complex Spinopelvic Reconstruction after Sacral Tumor Resection. General Hospital of Urumgi, Yinchuan, China, June 12, 2015
- 190. Yaszemski MJ: Animal Models for Evaluation of Tissue Engineered Devices, 23<sup>rd</sup>
  Annual Advances in Tissue Engineering Course, Rice University, Houston, TX, August
  15, 2015
- 191. Yaszemski MJ: Mayo's History of Military Research and Musculoskelatal Regenerative Medicine of Today, Mayo Clinic Heritage Days, Research Information Center Gonda L-246, Meet the Researcher, Mayo Clinic, Rochester, MN, October 8, 2015
- 192. Yaszemski MJ: Evaluation and Management of Primary Tumors of the Mobile Spine. 57<sup>th</sup> Annual Meeting of the Society of Military Orthopaedic Surgeons. St. Petersburg, FL, December 11, 2015

## INVITED VISITING PROFESSORSHIPS

- 1. Department of Orthopaedic Surgery, University of Rochester, Rochester, NY, March 19-20, 1999
- 2. Department of Orthopaedic Surgery, Wilford Hall Medical Center, Lackland Air Force Base, San Antonio, TX, June 21-22, 2002

- 3. Department of Orthopaedic Surgery, Washington University, Saint Louis, MO, March 26, 2003
- 4. Department of Orthopaedic Surgery, Henry Ford Hospital, Detroit Michigan, May 7, 2008
- 5. Department of Surgery, Uniformed Services University of Health Sciences, Bethesda, MD, February 12, 2009
- 6. Department of Orthopedic Surgery, Uniformed Services University of the Health Sciences, Bethesda, MD, March 24, 2009
- 7. Alpha Omega Alpha Distinguished Visiting Professorship, Uniformed Services University of Health Sciences Chapter, Bethesda, MD, March 24, 2009
- 8. Department of Orthopaedic Surgery, Graduation Visiting Professor, Nineteenth Annual Research Day, Cleveland Clinic, Cleveland, OH, June 4, 2009
- 9. Department of Orthopaedic Surgery, Keio University, Tokyo, Japan, November 9, 2009.
- 10. Department of Chemical Engineering, Visiting Professorship, Lehigh University, March 2, 2011
- 11. Department of Orthopaedic Surgery, Wake Forest University, School of Medicine, Institute for Regenerative Medicine, Winston-Salem, NC, March 14, 2011
- 12. Department of Orthopaedic Surgery, Research Day, Stanford University School of Medicine, Palo Alto, CA, March 26, 2011
- 13. Department of Orthopaedics and Traumatology, University of Hong Kong, 50<sup>th</sup> Anniversary International Orthopaedic Forum, Hong Kong, China, August 19-21, 2011
- 14. Department of Orthopaedic Surgery, University of Athens School of Medicine, Athens, Greece, May 30, 2011
- 15. Department of Biomedical Engineering, Case Western University, Cleveland, Ohio, April 13, 2012
- 16. Department of Orthopaedic Surgery, Huashan Hospital/Fudan University, Shanghai, China, October 310 November 2, 2013
- 17. Department of Orthopaedic Surgery, University of Alabama at Birmingham, Annual Residency Graduation Visiting Professor, Birmingham, AL, June 20, 2014
- 18. Department of Orthopaedic Surgery, Atlanta Medical Center, Atlanta, GA, Annual Residency Graduation Visiting Professor, June 18-19, 2015
- 19. University of Minnesota, Minnesota, Minnesota, NIH Medical Scientist (MD/PhD) Training Program (MSTP) Annual Retreat Visiting Professor, (held at the Lake Superior Conference Center, Duluth, Minnesota), July 23-24, 2015
- 20. Department of Orthopaedic Surgery, University of Kansas Medical Center, Kansas City, Kansas, Rex Diveley Residency Visiting Professor Lectureship, April 28-29, 2016
- 21. Department of Orthopaedic Surgery, University of Minnesota, Annual Residency Graduation Visiting Professor, June 16-17, 2016
- 22. Department of Orthopaedic Surgery, University of Vermont John W. Frymoyer Lecturership, Burlington, Vermont, September, 2016
- 23. Department of Orthopaedic Surgery, University of Cincinnati, May, 2018

# **GRANTS RECEIVED**

1. Yaszemski MJ (PI), and Hayes WC (co-PI): A Temporary Replacement for Trabecular Bone: The Design, Synthesis, and Characterization of a Bioerodible Polymeric

- Biomaterial. AO Stiftung/ASIF Foundation, Bern, Switzerland: \$93,500, July 1, 1991 June 30, 1992
- 2. Yaszemski MJ (PI), Mikos AG, (co-PI), Hayes WC, and Langer RS: Novel Polymeric Degradable Biomaterials and Osteoblast Transplantation for Repair and Temporary Replacement of Bone. Orthopaedic Research and Education Foundation: \$97,500, July 1, 1993 June 30, 1995
- 3. Sutherland J (PI), Yaszemski MJ (co-PI), and White III AA: A Radiographic and Anatomic Correlation of the C1-C2 relationships in a Ligamentously Intact Cadaver Spine Model. Cervical Spine Research Society: \$7,000, December 1992 December 1994
- 4. Yaszemski MJ (PI): Novel Biodegradable Composite Biomaterials for Orthopaedic Applications. United States Air Force Surgeon General's Office Grant #SGO 93-070: \$190,985, June 3, 1994 June 13, 1996
- 5. Benedetti G, Parsons TW, and Yaszemski MJ: Direct Electrical Stimulation of Canine Bone Allograft. United States Air Force Surgeon General's Office Grant: \$11,985, February 1994 June 1997
- 6. Yaszemski MJ, Delanois R, Witkowski E, Pape H, and Zimmer W: Determination of the Material Properties of Timetal 21SRx, an Alloy with Potential Orthopaedic Applications. \$100,000, National Aerospace Plane Program, Wright Laboratories, Wright Patterson AFB, OH, January 1994 July 1996
- 7. Mikos AG (P.I.), Yasko AW, and Yaszemski MJ (co-investigators): Bone Regeneration by Osteoblast Transplantation. \$504,070, NIH R-29, April 1, 1996 March 31, 2001
- 8. Mikos AG (P.I.), Yaszemski MJ (co-investigator): Injectable Biomaterials for Bone Tissue Engineering. \$729,637, NIH R-01, December 1, 1996 November 30, 2000
- 9. Yaszemski MJ (P.I.): The Synthesis, Characterization, and Drug Delivery Kinetics of a Degradable Polymeric Composite Biomaterial for Orthopaedic Applications. \$70,000, Mayo Foundation CR-20 Grant, January 1, 1998 December 31, 1999
- 10. Yaszemski MJ (P.I.): BMP-2 Controlled Release from Degradable Polymeric Microspheres for Bone Regeneration. \$150,000, Aircast Foundation, July 1, 1998 June 30, 2001
- 11. Mikos AG (P.I.), Yaszemski MJ, Miller M, Yasko AW, Peter SJ, Aufdemorte TB, Engel P, and Zygourakis K (co-investigators): In Situ Polymerizable Gels for Dental Tissue Engineering. NIH R01 DE13031-01 (NIDR), September 1, 1998- August 31, 2003
- 12. Yaszemski MJ (P.I.), Currier BL, Windebank AJ, and Murray MJ: Bone Regeneration via Injectable Degradable Polymeric Biomaterials that Exhibit Controlled Delivery of Encapsulated Growth Factors. \$500,000, Smith Foundation, July 1, 1999 June 30, 2004
- 13. Yaszemski MJ (P.I.), Mikos AG, and Currier BL (co-investigators): Osteoinductive Injectable Degradable Polymeric Scaffold. \$938,750, NIH 1 R01 AR 45871-01 (NIAMS), September 1, 1999 August 31, 2004
- 14. Kharas G, and Yaszemski MJ (co- P.I.s): Biodegradable Cement Compositions for Bone Repair, \$116,047, NIH 1 R15 AR45556-01A1 (NIAMS), Sept. 15, 1999 August 31, 2002
- 15. Shoichet MS (P.I.), Tator CH, and Yaszemski MJ, Enhancing axonal regeneration following spinal cord injury by in situ delivery of neuroregenerative factors, \$320,483, Canadian Institutes of Health Research (CIHR), #9439-57972-bme-85958-200009-mop-44054, Jan. 1, 2001 March 31, 2004

- Conzemius MG (P.I.), Mallapragada SK, Yaszemski MJ, and Lewallen DG: Tantalum Trabecular Metal: Towards a Chondroconductive Implant with Load bearing Mechanical Strength, \$21,000, Carver Trust Grant Program of Iowa State University, April 18, 2001 -April 17, 2002
- 17. Kempen DHR, Greutzmacher JA, Zhu X, Pederson LG, Chu P, Currier BL, Lu L, and Yaszemski MJ: Fabrication of Double and Triple Layered Microspheres and Controlled Release of Growth Factors from these Microspheres, \$4920, Scholarly Clinician Award (SCA), Mayo Foundation, December, 2001 December, 2002
- 18. Friedman JA, Windebank AJ, Yaszemski MJ, Moore MJ, Currier BL, and Spinner RJ: Delivery of Schwann cells and chondroitinase via a biodegradable polymer vehicle for the treatment of spinal cord contusion, \$25,000, Morton Foundation, 2003 2004
- 19. Windebank AJ, Yaszemski MJ, Currier BL, and Friedman JA: Biodegradable Polymer Implants to Promote Axonal Regeneration Following Spinal Cord Injury, \$100,000, Wilson Foundation, April 2003 March 2005
- 20. Yaszemski MJ (P.I.), Currier BL, Lu L, Jabbari E, and Talac R: Injectable Osteoinductive Biodegradable Composites. \$1,642,500, NIH 1 R01 EB003060-01, (NIBIB), September 30, 2003 September 29, 2008
- 21. Windebank AJ (P.I.), Yaszemski MJ (co-P.I.), Currier BL, Lu L, and Jabbari E: Biodegradable Polymer Implants for Spinal Cord Repair. \$1,460,000, NIH 1 R01 EB02390 (NIBIB), September 30, 2003 September 29, 2007
- 22. Yaszemski MJ (P.I.), Currier BL, Lu L, Jabbari E, and Hefferan T: Osteoinductive Injectable Degradable Polymeric Scaffold. \$2,190,000, NIH 2 R01 AR 45871-06 (NIAMS, competitive renewal of #13 above), September 1, 2004 August 31, 2009
- 23. Yaszemski MJ, Turner RT, and Maran A: Non-genomic effects of Tibolone. \$100,000, January 1, 2005 December 31, 2007
- 24. Kempen DHR, Dhert WJA, Yaszemski MJ, Creemers LB, Lu L, Oner FC, Martens A, Verbout AJ, and Castelein RM: Advanced bone tissue engineering using biodegradable polymers as scaffold and drug release system. \$63,500, AGIKO, the Netherlands, April 1, 2005 March 31, 2009
- 25. Hollister SJ (P.I.), Yaszemski MJ (P.I. on Specific Aim 2 subcontract), and Lu L: Stiffness/Porosity Effects on Mandibular Reconstruction. \$2,669,254 (\$313,482 on Specific Aim 2 subcontract), NIH 1 R01 DE016129-01 (NICDR), July 1, 2005 June 30, 2009
- 26. Florschutz AV, Gee JE, and Yaszemski MJ: Experimental scoliosis using vertebral body implanted magnets in an immature goat model. \$10,000, Scoliosis Research Society Small Exploratory Research Grant, July 1, 2005 December 1, 2006
- 27. Yaszemski MJ (P.I.), Currier BL, Lu L, Jabbari E, and Hefferan T: Minority Supplement to Osteoinductive Injectable Degradable Polymeric Scaffold. \$53,005, NIH 3 R01 AR045871-07S1 September 1, 2005 August 31, 2006
- 28. Yaszemski MJ (P.I., June 1, 2006- March 31, 2007), Bolander ME (P.I., June 1, 2002 May 31, 2006): Genomic Assessment of Clinical Variability in Osteosarcoma. \$2,581,910, NIH 5 R01 AR047974-05 (NIAMS)
- 29. Boyan BD, Yaszemski MJ (Consultant): Adipose-derived Mesenchymal Stem Cells for Treatment of Large Bone Defects. \$1,669,419, Department of Defense, May 8, 2006
- 30. Heijink A, Lewallen DG, Hanssen A, Patel R, Rouse M, Kempen DH, and Yaszemski MJ: A novel technique for non-invasive *in vivo* measurement of antibiotic concentrations

- in experimental animals a pilot study. \$5,000.00, Mayo Scholarly Clinician Award, August 15, 2006 February 15, 2007
- 31. Szatkowski JP, Dadsetan M, and Yaszemski MJ: Photo-encapsulation of marrow stromal cells and chondrogenic growth factors into hydrogels. \$15, 000, Mayo Clinic College of Medicine Resident's Master of Science Program Grant, August 15, 2006 February 15, 2007
- 32. Maran A, Hefferan TE, Szatkowski JP, and Yaszemski MJ: Role of Stat 1 Protein in Osteogenesis and Chondrogenesis. \$5,000, Mayo Clinic Scholarly Clinician Award, Nov. 1, 2006 April 30, 2007
- 33. Yaszemski MJ, Lu L, Hefferan TE, Kim J, Gruetzmacher J, Shogren K: Armed Forces Institute of Regenerative Medicine (AFIRM). \$1,033,440, Department of Defense, FEDCONW81XWH-08-2-0034-1, March 10, 2008 June 30, 2014
- 34. Jackson SD, Hefferan T, Huddleston P, Maran A, Dadsetan M, Evans G, Burgess J, Herrick J, Jewison D: Measurement of Bone Quality and Regeneration Using Micro-CT Analysis in a New Zealand White Rabbit Posterolateral Spine Fusion Model Mayo Clinic Orthopedic Department's Orthopedic Research Review Committee, \$5,280, December 2008
- 35. Dadsetan M, Yaszemski MJ, Hefferan T, Maran A, Runge MB, Jackson S: Tissue Engineered Ear-shaped Cartilage Mayo Clinic Orthopedic Department's Orthopedic Research Review Committee, \$10,400, December 2008
- 36. Lu L and Yaszemski MJ (Co-PIs): Metastatic Spine Tumors: Minimally Invasive Fracture Risk Analysis and Treatment. NIH R01 AR056212, \$1,115,004, April 1, 2008 March 31, 2015 (including no-cost extensions)
- 37. Westendorf JJ (Program Director.), Amadio PC, Amin S, An K-N, Bishop AT, Ekker SC, Gabriel SD, Kaufman DR, Khosla S, Kumar R, Leibson CL, O'Driscoll SW, Oursler MJ, Yaszemski MJ (Faculty: Musculoskeletal Research Training Program NIH 1T32AR056950-01, 2009 2014
- 38. Maran A and Yaszemski MJ (co-PIs): Therapeutic Effects of 2-Methoxyestradiol on Osteosarcoma. Mayo Clinic Cancer Center, Order of Eagles Cancer Research Fund—Bridging to Success Program. \$50,000, June 7, 2010 May 31, 2011
- 39. Lu L and Yaszemski MJ (Co-PIs): Injectable Osteoinductive Biodegradable Composites. NIH/NIBIB R01 EB03060-6, \$1,835,376, April 1, 2011 February 28, 2015
- 40. Riester S (Yaszemski MJ Supervisor to Recipient): Differentiating Musculoskeletal Tumors Using MicroRNA Expression Profiling, Orthopaedic Research and Education Foundation's Research Grant, \$5,000, July 1, 2012 June 30, 2013
- 41. Riester S (Yaszemski MJ Supervisor to Recipient): MicroRNAs as biomarkers for musculoskeletal tumors, Kelly Research Fellowship Award, \$20,000, 2013-2014
- 42. Casper M (Yaszemski MJ Mentor and Thesis Advisor to Recipient): The Effect of Mechanical Stimulation on Chondral Integration, National Institutes of Health F31 AR064151 (Impact/Priority Score: 16)
- 43. Yaszemski MJ, Larson, N (Principal Investigator): Long-term Pulmonary Function, Health-related Quality of Life, and Sagittal Plane Alignment Following treatment of adolescent idiopathic scoliosis, Scoliosis Research Society (SRS), July 2012-May 2015
- 44. Sitharaman B, Yaszemski MJ (Collaborator): Pre-Clinical Development of A Nanotechnology-Based Non-pharmacological Technology to Treat Fresh and Non-Union

- Fractures, Department of Defense-W81XWH-BAA-14-1 (\$406,470)/National Institutes of Health STTR (\$51,756), Feb 2015
- 45. Yaszemski MJ, thesis advisor to recipient, Mamo TK: Travel Award to attend the National MD/PhD Student Conference, Keystone, CO, for the poster presentation "The DNA-PK Inhibitor KU60648 has differential radiosensitizing effects in various primary bone tumor cells", July 2015
- 46. Alverez L, Yaszemski MJ (Co-Investigator): Joint Warfighter Medical Research Program Adaptive Orthopedic Biologics for Highly Targeted Regeneration, Joint Warfighter Medical Research Program (JWMRP) Grant, \$514,329, December 15, 2015 December 31, 2017
- 47. Schwarzbauer J, Windebank, AJ, Yaszemski MJ, (Co-Investigator): A Cell-Assembled Matrix Template to Guide Nerve Regeneration in the Spinal Cord. New Jersey Commission on Spinal Cord Research-FP00081599 (\$210,000), June 2015
- 48. Yaszemski MJ, Mikos A, (Multiple Principal Investigators): Mayo Clinic Rice University Dental, Oral and Crainiofacial Tissue Regeneration Consortium Resource Center, NIDCR/NIH-1R34-DE025593-01 (\$211,000), 9/8/15-8/31/16
- 49. Yaszemski MJ, Lu L (Co-Principal Investigators): Metastatic Spine Tumors: Minimally Invasive Fracture Risk Analysis and Treatment, NIH/NIBIB- R01 AR056212, (\$2,531,215), April 1, 2015- June 30, 2020
- 50. Yaszemski MJ (Principal Investigator): 2017 AAOS/ORS Translating Orthopaedic Technologies into Clinical Practice: Pathways from Novel Idea to Improvements in Standard of Care Resarch Symposium, NIAMS Support for Conferences and Scientific Meetings R13, PA-13-247, (\$15,000) *submitted Dec 2015*
- 51. Yaszemski MJ, Lu L (Co-Principal Investigators): Metastatic Spine Tumors: Minimally Invasive Fracture Risk Analysis and Treatment, NIH/NIBIB- 5R01 AR056212-07, (\$442,262), June 30, 2016- June 30, 2017

## **CONSULTING**

- 1. Cambridge Scientific, Inc., Belmont, MA; Donald L. Wise, Ph.D., President; NIH SBIR Phase I Grant #PCS-158: Development of a Bioabsorbable Bone Grout Material, and NIH SBIR Phase I Grant #PCS-159: Development of a Bioabsorbable Bone Plate. April 1, 1990 December 1, 1990
- 2. Cambridge Scientific, Inc., Belmont, MA; Donald L. Wise, Ph.D., President; NIH SBIR Phase II Grant #2R 44AR44600-02, Self-Reinforcing Resorbable Buffered Internal Fixation Devices
- 3. Wyeth, Inc., Bone Morphogenic Protein Data Safety and Monitoring Board, 2005 2010.
- 4. IsoTis, Inc., Laguna Beach, CA: Scientific Advisory Board Member, 2005 2006.
- 5. Osteotech, Inc., Scientific Advisory Board, 2007 2008
- 6. Medtronic Sofamor Danek USA, Inc., Clinical Trials Design, August 12, 2013-2014.
- 7. K2M, Inc., Design of implants and instrumentation for spine and pelvic musculoskeletal tumor surgery, 2014-present
- 8. Medtronic, Inc., Spine Clinical Advisory Board (Moderator), 2015-present

## **PATENTS**

- 1. Suggs LJ, Payne RG, Yaszemski MJ, Mikos AG: Poly (Propylene Fumarate-co-Ethlyene Oxide), U.S. patent #5,527,864, June 18, 1996
- 2. Suggs LJ, Payne RG, Yaszemski MJ, and Mikos AG: Method of Making Poly (Propylene Fumarate-co-Ethylene Oxide), U.S. patent #5,644,005, July 1, 1997
- 3. Yaszemski MJ, Payne RG, and Mikos AG: Poly (Propylene Fumarate), U.S. patent #5,733,951, March 31, 1998
- 4. Peter SJ, Yaszemski MJ, and Mikos AG: Bone Replacement Compound Comprising Poly (Propylene Fumarate), U.S. patent #6,124,373, September 26, 2000
- 5. He S-L, Mikos AG, and Yaszemski MJ: Poly(Propylene Fumarate) Cross Linked with Poly(Ethylene Glycol), U. S. patent #6,384,105, May 7, 2002
- 6. He S-L, Yaszemski MJ, and Mikos AG: Biodegradable Poly(Propylene Fumarate) networks cross linked with Poly (propylene fumarate-diacrylate macromers, U.S. patent #6,423,790, July 23, 2002
- 7. He S-L, Yaszemski MJ, and Mikos AG: Biodegradable Poly(Propylene Fumarate) networks cross linked with Poly (propylene fumarate- diacrylate macromers, U.S. patent #6,759,485, July 6, 2004 (same title as #6, separate patent with distinct claims)
- 8. Yaszemski MJ, Currier BL, Lu L, Zhu X, Jabbari E, and Kempen DHR: Blend, Crosslinkable Poly(Propylene Fumarate) for Immobilization and Controlled Drug Delivery, U.S. Patent # 6,884,432, April 26, 2005
- 9. Friedman JA, Moore MJ, Windebank AJ, and Yaszemski MJ: Spinal Cord Surgical Implant, U.S. Patent # 7,163,545, January 16, 2007
- 10. Yaszemski MJ, Currier BL, Jabbari E, Lu L: Hydroxyapatite grafted fumarate based macromers for biodegradable composites. Patent Disclosure MMV-03-069, European Patent # 04777241.3-2115-US2004020842, pending; filed 29 June 2004, Application #10/562,591, filing date: 06/13/2006. U.S. Patent #7,642,300, January 5, 2010
- 11. Yaszemski MJ, Lu L, Dadestan M. Photocrosslinkable oligo (poly [ethylene glycol] fumarate) hydrogels for Cell and Drug Delivery. U.S. Patent # 8,343,527, Jan. 1, 2013
- 12. Yaszemski MJ, Wang S, and Lu L. Photocrosslinkable poly(caprolactone fumarate). U.S. Patent # 1,809,678, May 22, 2013
- 13. Wang S, Lu L, and Yaszemski MJ: Hydrophilic/Hydrophobic Polymer Networks Based on Poly(Caprolactone Fumarate) (PCLF), Poly(Ethylene Glycol Fumarate) (PEGF), and Copolymers Thereof, U.S. Patent # 8,912,247, December 16, 2014

#### **Patents Pending:**

- 1. Jabbari E, Yaszemski MJ, Lu L, and Currier BL: Hydrogel porogens for fabricating biodegradable scaffolds. Patent Disclosure MMV-03-090, filed July 2003, Application #4782412.3.2115-US2004027926, *pending*
- 2. Jabbari E, Yaszemski MJ, Lu L, and Currier BL: Self-crosslinkable poly(caprolactone-fumarate). Patent Disclosure MMV 03-044, filed August 2003, Application #04777316.3-21-US2004021040, *pending*
- 3. Kaufman KL, and Yaszemski MJ: Spinal orthoses, Application #11628,996, Mayo Case #2004-045, Attorney Ref #630666.00044 US, application filed January 9, 2007; European

- application filed February 26, 2007, U.S. application filed June 6, 2009, application #05759893.0, *pending*
- 4. Robb RA, Rajagopalan S, Jabbari E, and Yaszemski MJ: Space optimal, unit cell based tissue engineering scaffolds, Patent Disclosure MMV-04-085, filed May 2004, *pending*
- 5. Robb RA, Rajagopalan S, Jabbari E, and Yaszemski MJ: A method for repeated, rapid fabrication of enhanced, porous, tissue engineered scaffolds, MMV-04-084, filed May, 2004, pending
- 6. Wang S, Lu L, Currier BL, and Yaszemski MJ: Block copolymers of poly(propylene fumarate) and poly(epsilon caprolactone). MMV-04-200, provisional filed 18 Nov 2004, PCT filed 18 Nov 2005, Application #05851973.7-1220-US2005042240, pending
- 7. Dadsetan M, Lu L, and Yaszemski MJ: Oligo(poly(ethylene glycol)fumarate) (OPF) hydrogels: biodegradable, injectable, photocrosslilnkable. MMV-05-021, provisional filed 23 March 2005, PCT filed 23 March 2006, *pending*
- 8. Wang S, Lu L, and Yaszemski MJ: Copolymer of caprolactone and fumarate units which is biodegradable and photocrosslinkable with a photoinitiator. MMV-04-258, provisional filed 12 Nov 2004, PCT filed 12 Nov 2005, *pending*
- 9. Dadsetan M, Lu L, and Yaszemski MJ: Rapid Prototyping of 3D Tissue Engineering Scaffolds Using Photo-Crosslinkable Hydrogels and Stereolithography, MMV-05-101, pending
- 10. Kim J, Lu L, Yaszemski MJ: Biodegradable hydrogels based on poly(ethylene glycol) and sebacic acid (PEGSDA) elastomers, Feb 2007, *pending*
- 11. Dadsetan M, Yaszemski MJ, Lu L: Charged oligo(poly[ethylene glycol] fumarate) hydrogels for nerve growth. MMV-05-318, *pending*
- 12. Yaszemski MJ, Currier BL, Lu L, and Wang S. Block copolymers of polycaprolactone and poly (propylene fumarate). Patent application No.: PCT/US2005/042240; Application Type: PCT; Country Code: US; Mayo Reference No.: 2004-200; Docket No.: 630666.00057 PCT, Filing date: May 9, 2007, *pending*
- 13. Sarkar G, Bolander ME, Mandal D, Mahlum EW, and Yaszemski MJ: Transport of Biologically Active Molecules into a Cell, Mitochondrion, or Nucleus. Patent Application #12/354,142, Filing Date 01/15/2009, Mayo Clinic Case #2006-1232007-030, Attorney Docket #07039-826011, Application #12/354, 142, *pending*
- 14. Runge BH, Dadsetan M, Yaszemski MJ: Conducting polymeric composites of polycaprolactone fumarate and polypyrrole for nerve regeneration. Mayo Case #2008-317, *pending*
- 15. Yaszemski MJ, Runge MB, Dadsetan M: Conducting polypyrrole-polyproplene fumarate scaffolds for bone regeneration. Mayo Case #2008-380, *pending*
- 16. Runge MB, Dadsetan M, Yaszemski MJ: Conductive hydrogel composites of oligo(poly ethylene glycol) fumarate and polypyrrole, *pending*
- 17. Dadsetan M, Yaszemski MJ, Maran A: Polyelectrolyte Hydrogels for Delivery Doxorubicin. Mayo Case #2009-214, *pending*
- 18. Runge MB, Yaszemski MJ: Biocompatible Polycaprolactone Fumarate Formulations. Patent Application #: 14/009,987, Attorney Docket #: 630666.00446, Filing Date October 14, 2013, pending
- 19. Runge MB, Dadsetan M, Yaszemski MJ: Conductive Polymeric Composites of Poly (caprolactone fumarate) and Polypyrrole for Nerve Regeneration, Serial # 12/925,182, filed October 15, 2010, *pending*

- 20. Mamo T, Kwon E, Riester Sc, Yaszemski MJ: Targeted Metallic Nanoparticle Thermal Therapy for Bone Tumors. Mayo Case #2013-332, *pending submitted 2013*
- 21. Lu L, Liu X, Yaszemski MJ: Conductive Graphene Oxide Hydrogel Composites with Functionalized Surface for Nerve Regeneration. Mayo Case#DR15-686, *pending submitted* 2015
- 22. Lu L, Liu X, Yaszemski MJ: Expansile crosslinked polymersome for pH sensitive delivery of doxorubicin. Mayo Case#DR15-300, *pending submitted 2015*
- 23. Lu L, Liu X, Yaszemski MJ: Polymeric Micelles for Targeted Cancer Drug Delivery Mayo Case#DR15-723, *pending submitted 2015*
- 24. Lu L, Wang H, Yaszemski MJ, Windebank AJ: Composite decellularized nerve allograft capable of electrical conduction and local controlled release of tacrolimus for peripheral nerve gap reconstruction. Mayo Case#DR15-609, *pending submitted 2015*

## **INVENTION LICENSES**

1. Biodegradable Charged Hydrogel for DNA Delivery and Cell Transplantation Mayo Case #2005-318. Licensed by Mayo Foundation to BonWrx, Inc., May 31, 2007

### PEER REVIEW SERVICE

- 1. Biomaterials, 1990 present
- 2. Journal of Orthopaedic Research, 1990 present
- 3. Clinical Orthopaedics and Related Research, 1990 present
- 4. Biotechnology and Bioengineering, 1991 -1992
- 5. Cell Transplantation, 1993 1994
- 6. Molecular Medicine Today, 1995 1996
- 7. Tissue Engineering, 1996 present
- 8. The Clinical Journal of Pain, 1997 1998
- 9. Spine, 1997 present
- 10. Journal of Biomedical Materials Research, 1999 present
- 11. Journal of Bone and Joint Surgery, 2000 present
- 12. Journal of the American Academy of Orthopaedic Surgeons, 2000 present
- 13. Proceedings of the National Academy of Science, 2001 present
- 14. Pharmaceutical Science and Technology, 2002 2008
- 15. Journal of Clinical Anatomy, 2002 present
- 16. Annals of Biomedical Engineering, 2003 2008
- 17. Journal of Applied Polymer Science, 2004 2008
- 18. Bone, 2004 2008
- 19. Biomacromolecules, 2004 present
- 20. DARU, Faculty of Pharmacy, Tehran University of Medical Sciences, 2005 2008

#### GRADUATE THESIS SUPERVISION & THESIS COMMITTEE SERVICE

- 1. Susan L. Ishaug-Riley, Ph.D.: Bone Formation by Three Dimensional Osteoblast Culture in Biodegradable Poly (α-hydroxy Ester) Scaffolds. Chemical Engineering, Rice University, Houston, TX, June 1996, (Thesis Committee Member)
- 2. Robert Thomsen, Ph.D.: Biodegradable Polymer Scaffold Fabrication and the Creation of Tissue Engineered Bone. Chemical Engineering, Rice University, Houston, TX, April, 1997, (Thesis Committee Member)
- 3. Susan J. Peter, Ph.D.: Injectable, In Situ Polymerizable, Biodegradable Scaffolds based on Poly(propylene fumarate) for Guided Bone Regeneration. Chemical Engineering, Rice University, Houston, TX, May, 1998, (Thesis Committee Member)
- 4. Laura J. Suggs, Ph.D.: Development of Poly(Propylene Fumarate-co-Ethylene Glycol): An Injectable, Biodegradable Implant for Cardiovascular Applications. Chemical Engineering, Rice University, May 1998, (Thesis Committee Member)
- 5. Amy K. Burkoth, Ph.D.: Synthesis and Characterization if In Situ Forming Polyanhydride Networks for Orthopaedic Applications. Chemical Engineering, University of Colorado, Boulder, CO, August 2000, (Thesis Committee Member)
- 6. Richard G. Payne, Ph.D.: Development of an Injectable, in situ Crosslinkable, Degradable Polymeric Carrier for Osteogenic Cell Populations. Chemical Engineering, Rice University, Houston, TX, April 2001, (Thesis Committee Member)
- 7. Jason A. Burdick, Ph.D.: Synthesis and Characterization of Osteoinductive Photocurable Scaffolds: A Tissue Engineering Approach to Enhance Bone Regeneration. Chemical Engineering, University of Colorado, Boulder, CO, June, 2002, (Thesis Committee Member)
- 8. Esfandiar Behravesh, Ph.D: Synthesis of an Injectable Biodegradable Biomimetic Macroporous Hydrogel Scaffold for Bone Tissue Engineering. Department of Bioengineering, Rice University, August 2002, (Thesis Committee Member)
- 9. Jeremy S. Blum, Ph.D.: Development of Genetically Modified Cells for Bone Tissue Regeneration. Department of Bioengineering, Rice University, October 2003, (Thesis Committee Member)
- 10. Elizabeth L. Hedberg, Ph.D.: Controlled Release of Osteogenic Factors from Injectable Biodegradable Composite Materials for Bone Tissue Engineering. Department of Bioengineering, Rice University, October 2003, (Thesis Committee Member)
- 11. Bruno Fuchs, M.D., Ph.D.: Identification of Candidate Genes Regulating Metastasis in Osteogenic Sarcoma. Department of Biochemistry and Molecular Biology, Mayo Clinic College of Medicine Graduate School, March 2004, (Thesis Committee Member)
- 12. Michael J. Moore, Ph.D.: Bone Tissue Engineering. Departments of Orthopedic Surgery and Biomedical Engineering, Mayo Clinic College of Medicine Graduate School, January 2005, (Main Thesis Advisor)
- 13. Srinivasan Rajagopalan, Ph.D.: Minimal Surface Technology for Tissue Engineering Scaffolds. Departments of Orthopedic Surgery and Biomedical Engineering, Mayo Clinic College of Medicine Graduate School, June 2005, (Thesis co-principal advisor with Richard A. Robb, Ph.D.)
- 14. Rapin Phimlsarnti, M.D.: Sacropelvic Reconstruction Biomechanics. Department of Orthopedic Surgery, Mayo Clinic College of Medicine Graduate School, Masters Degree Clinical Scientist Training Program, March 2006, (main Thesis Advisor)

- 15. Julie Adams, M.D.: Four Corner Wrist Arthrodesis. Mayo Clinic College of Medicine Graduate School, Master of Science in Orthopedic Surgery, 2006, (Thesis Committee Member)
- 16. Orlando Lopez, Ph.D.: Development of High-Frequency Dynamic Magnetic Resonance Elastography for Characterization of the Dynamic Shear Properties of Hyaline Cartilage. Department of Physiology and Biomedical Engineering, Mayo Clinic College of Medicine Graduate School, January 2007, (Thesis Committee Member)
- 17. P. Andrew Utter, M.D.: Prediction of Vertebral Fractures Following Vertebroplasty using Quantitative Computerized Tomography. Clinical Science Master's Program, 2006 (main Thesis Advisor)
- 18. Meredith L. Anderson, M.D.: Clinical Science Master's Program, 2006 2007, (Main Thesis Advisor)
- 19. Jan Szatkowski, M.D.: Master of Science Program in Orthopedic Surgery, 2006 2007, (Thesis Committee Member)
- 20. McKinley C. Lawson, Ph.D.: Structure-function relationships of polymerizable vancomycin derivatives for antimicrobial surface modification of orthopedic biomaterials. Chemical and Biological Engineering, University of Colorado School of Medicine, 2008 2009 (Thesis, Committee Member)
- 21. Matthew P. Abdel, M.D.: Use of decorin to potentially treat joint contractures: A genetic microarray, immunohistochemistry, & biomechanical study in humans and a rabbit model replicating human elbow stiffness. Master of Science Program in Orthopedic Surgery, 2008 present, (Thesis Committee Member)
- 22. Mark E. Morrey, M.D.: Substance P's effect on tissue healing and joint contracture in a rabbit model: A microarray, immunohistochemistry and biomechanical analysis. Master of Science Program in Orthopedic Surgery, 2008 present, (Thesis Committee Member)
- 23. Diana Anguis, M.D.: Master of Science in Molecular Neuroscience Master Degree, 2009 2010, (Thesis Committee Member)
- 24. Jon Barlow, M.D.: Master of Science Program in Orthopedic Surgery, The effects of a limited capsular release with and without rosiglitazone on a rabbit model of arthrofibrosis. 2009 present, (Thesis Committee Member)
- 25. Timothy Ewald, M.D.: Master of Science Program in Orthopedic Surgery, 2010-2014 (Thesis Committee Member)
- 26. Justin Walker, M.D.: Master of Science Program in Orthopedic Surgery 2010 –2014 (Thesis Committee Member)
- 27. Michelle Casper, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), August 2010 – May 2015
- 28. Diederik Hendrik Ruth Kempen, M.D.-Ph.D. Doctoral Student, University of Utrecht, Netherlands, October 2011 (Main Thesis co-Advisor (Promotoren) with Wouter Dhert, M.D., Ph.D.). Thesis defense in Utrecht on 26 October 2011 ("Bone Regeneration based on Growth Factor Releasing Polymer Composites"). Dr. Kempen was awarded the Ph.D. with Honors, and was the third candidate to do so at the University of Utrecht in 2011.
- 29. Catalina Vallejo Giraldo, Masters Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), August 2010 May 2012

- 30. Katarina (Katcha) E. Taylor, Masters Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), November 2010 May 2012
- 31. Christopher Hermann, MD-PhD Student, Doctoral Student in Biomeduical Engineering, Georgia Institute of Technology, Atlanta, GA (Thesis Committee Member), Hydrogel Therapy for Re-Synostosis Based on the Developmental and Regenerative Changes of Murine Cranial Sutures, March 6, 2012
- 32. Samantha Woyda, Doctoral Student in Biomedical Engineering, Colorado State University (Thesis Committee Member; Main Thesis Advisor is Set Donahue, Ph.D), August 2011-present
- 33. A. Jay Khanna, M.D., Associate Professor of Orthopaedic Surgery, Johns Hopkins University; Served as Mentor via AAOS Leadership Fellows Program, 2012-2013
- 34. Carl Gustafson, Doctoral Student, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), Control Drug Delivery from Polymeric Composite Scaffolds for Bone Tissue Engineering, May 2013-present
- 35. Tewodros Mamo, MD/PhD student, Mayo Graduate School and Mayo Medical School, Mayo Clinic College of Medicine, (Main Thesis Advisor), Nanoparticles for drug delivery, July 2013-present

## **VISITING & PERMANENT SCIENTIST & PHYSICIAN SUPERVISION**

- 1. Esmaiel Jabbari, Ph.D., Chemical Engineering, July, 2002 August, 2004. Dr. Jabbari became an Associate Professor of Chemical Engineering at the University of South Carolina beginning with the Fall 2004 semester
- Theresa E. Hefferan, Ph.D., Molecular Biology, January 2003-December 2004. Dr. Hefferan became a research associate in our Tissue Engineering and Polymeric Biomaterials Laboratory in January 2005
- 3. Avudaiappan Maran, Ph.D, Cell and Molecular Biology, November 2004-December 2004. Dr. Maran became a professional associate in Research in our Tissue Engineering and Polymeric Biomaterials Laboratory in January 2005
- 4. Gobinda Sarkar, Ph.D., Molecular Biology, August 9, 2006-2008. Dr. Sarkar joined worked on the Genomic Variability in Osteosarcoma project
- 5. Takeshi Tsuchiya, M.D., Ph.D. September 4, 2007 March 20, 2008
- 6. Mentor to Louis Jenis, M.D., American Academy of Orthopaedic Surgeons (AAOS) Leadership Fellows Program, 2008-2009
- 7. Caihong Yang, M.D., Ph.D. May 7, 2010 September, 2011
- 8. Yu-Min Lin, M.D. June 2011 January 2012
- 9. Eleftheria Metania, M.D. May 2011 September 2011

## SPINE SURGERY FELLOW SUPERVISION

- 1. John L. Andreshak, M.D., 1996 1997
- 2. Nizam Razack, M.D., 1997 1998
- 3. Gad J. Velan, M.D., 1998 1999
- 4. David M. Christensen, M.D., 1999 2000
- 5. Larry T. Todd, Jr., D. O., 2000 2001

- 6. Choll W. Kim, M.D., Ph.D., 2001 2002
- 7. Matthew P. Walker, M.D., 2002 2003
- 8. Stephen J. Cyr, M.D., 2003 2004
- 9. Venkat Sethuraman, M.D., 2004 2005
- 10. Robert K. Eastlack, M.D., 2005 2006
- 11. Christopher Wagener, M.D., 2006 2007
- 12. H. Gregory Bach, M.D., 2006 2007
- 13. Jason Eck, D.O., 2007-2008
- 14. Amgad Hanna, M.D., 2008-2009
- 15. Marcus Noger, M.D., 2008-2009
- 16. Nitin Kukkar, MBBS, 2009-2010
- 17. Anthony Roccisano, D.O., 2009-2010
- 18. Hongbo Liu, M.D., 2010-2011
- 19. Hector A. Pulido Torres, M.D., 2010-2011
- 20. Melissa Erickson, M.D., 2011-2012
- 21. Charbel Moussallem, M.D., 2011-2012
- 22. Jad Khalil, M.D., 2012-2013
- 23. Brian Vernon, M.D., 2012-2013
- 24. Emily Nguyen, M.D., 2013-2014
- 25. Yazeed Gussous, M.D., 2013-2014
- 26. Mohammad Zarrabian, M.D., D.C., 2014-2015
- 27. Jonathan Duncan, M.D., 2014-2015
- 28. Benjamin Bjerke, M.D., 2015-2016
- 29. Ilyas Aleem, M.D., 2015-2016
- 30. Joseph Popper, M.D., 2016-2017
- 31. Jason Adler, M.D., 2016-2017
- 32. Oscar Duyos, M.D., 2017-2018
- 33. Brian Lawson, M.D., 2017-2018

## POST-DOCTORAL FELLOW SUPERVISION

- 1. Ted Tan, M.D., Formulation of Polymeric Microspheres. Clinician Scientist, Taiwan, July 1997 December 1997
- 2. Helena Brisby, M.D., Controlled Delivery from Polymer Microspheres. Ph.D. Doctoral Candidate, University of Goteborg, Sweden. January 1998 December 1998
- 3. Lichun Lu, Ph.D., Cartilage Tissue Engineering, December 1999 December 2000. Dr. Lu became co-director of the Tissue Engineering and Polymeric Biomaterials Laboratory after her fellowship year
- 4. Peihwei Chu, Ph.D., Polymer Synthesis and Characterization for Tissue Engineering Applications. February 2001 February 2002
- 5. Robert Talac, M.D., Ph.D., Bone Tissue Engineering and Porous Tantalum Composites, July, 2001- August, 2003. Dr. Talac began his residency in Orthopaedic Surgery at the University of California, San Diego in September 2003
- 6. Choll Kim, M.D., Ph.D., Bone Tissue Engineering, Research Quarter of Spine Fellowship, September 2001- December 2001. Dr. Kim began his appointment as

- Assistant Professor of Orthopaedic Surgery at the University of California, San Diego in August 2002
- 7. Jonathan A. Friedman, M.D., Central Nervous System Tissue Regeneration. Mayo Clinic Neurosurgery Residency Research Program, July 2001- June 2002. Dr. Friedman began his appointment as Assistant Professor of Neurosurgery at Dartmouth in July 2002
- 8. Rapin (Pete) Phimosartni, M.D., Master of Science in Clinical Research Graduate Student; Staff Surgeon, University of Bangkok, Bangkok, Thailand, March 2004 March 2006
- 9. Ari Itala, M.D., Controlled Local Delivery of chemotherapeutic agents from porous tantalum-polymeric composite materials, March 2004 February 2005
- 10. Shanfeng Wang, Ph.D., Novel Polymeric Biomaterial Synthesis and Characterization, June 2004 September 2007
- 11. Mahrokh Dadsetan, Ph.D., Novel Polymeric Biomaterial Synthesis and Characterization, July 2004 December 2014
- 12. Eric Hesse, M.D., Marrow Stromal Cell Differentiation and Phenotypic Expression on Synthetic Polymeric Scaffolds, PhD thesis project, Universität Hannover, Hannover, Germany, July October 2004
- 13. Anthony Florschutz, M.D., Bone tissue engineering, November 2004 June 2007
- 14. Andras Heijink, M.D., Controlled release of antibiotics from polymer-metal composite materials, University of Brussels, Brussels, Belgium, February 2005 June 2007
- 15. Jinku Kim, Ph.D., February 2005 February 2008
- 16. Lukasz Antolak, M.D., Ottwock, Poland, June July 2005
- 17. Meredith L. Anderson, M.D., July 2006 July 2007
- 18. Geoffrey J. Service, M.D., July 2006 July 2007
- 19. Jan Szatkowski, M.D., July 2006 July 2007
- 20. Steven Jackson, M.D., July 2007 2009 Minority Supplement grant from RO1 EB03060 Injectable Osteoinductive Biodegradable Composites
- 21. Xun Zhu, M.D., July 2007 2008
- 22. Takeshi Tsuchiya, M.D., Ph.D., September 4, 2007 March 20, 2008
- 23. Brett Runge, Ph.D., Research Associate, Mayo Clinic, 2008 2012
- 24. Jun Yan, M.D., September 2008 January 3, 2010 (Research Fellow)
- 25. Bahtiyar Demiralp, M.D., Research Fellow, Osteosarcoma: Experimental and Clinical Approach, March 2009 September 2009
- 26. Eddie Mairura, M.D., July 2010 August 2010
- 27. Teresa L. Brown, Ph.D., Visiting Scholar, Rochester Community Technical College Sabbatical, September 2010 May 2011
- 28. Yaser Mohamad Kheir Baghdadi, M.D., December 8, 2010 February 8, 2011
- 29. Christoph Thaler, M.D., Paracelsus University of Salzberg, Switzerland, December 2010 February 2011
- 30. Heng Zeng, M.D., Ph.D., Research Fellow, Department of Orthopedics, Tongji Hospital, Huazhong, China June 15, 2011 July 2012
- 31. Alan Lee Miller, Ph.D., Research Associate, Department of Orthopedic Surgery, Mayo Clinic, August 2012 present
- 32. Chun-Chieh Chen, M.D., Research Fellow, Department of Orthopedic Surgery, Chang Gung Memorial Hospital, Linkou Medical Center, Taoyuan, Taiwan, October 2012 September 2013

- 33. Zhong Fang, M.D., Research Fellow, Department of Orthopedic Surgery, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China, September 2013-January 2014
- 34. Fan Zhang, M.D., Research Fellow, Department of Orthopedics of Huashan Hospital, Shanghai, China, July 2013-June 2014
- 35. Yan Su, MD, Research Fellow, Cartilage Project (tendon/ligament work- Kakar), December 2013-January 2014
- 36. Jiandang Shi, MD, Research Fellow, Bone Tissue Repair and Regeneration, July September 2014
- 37. Ahmet Salduz, M.D., Istanbul University, Istanbul, Turkey, June 2014-June 2015.
- 38. Hui Liao, M.D., Research Fellow, Department of Orthopaedic Surgery, Tongji Hopsital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China, January 2014-January 2015
- 39. Po-Chun Lin, M.D., Research Fellow, Department of Orthopaedic Surgery, Chang-Gung Memorial Hospital, Kaohsiung Hsien, Taiwan, September 2014 July 2015
- 40. Yong Teng, M.D., Ph.D., Research Fellow, Department of Orthopedic Surgery, General Hospital of Urumqi, Xinjian, China, January 2015 January 2016, Bone Tissue Repair and Regeneration
- 41. Wenjian Chen, M.D., Research Fellow, Tongji Hospital, Tongji Medical College, Huazhong University of Science & Technology, January 2015 January 2016
- 42. Jie Zang, M.D., Research Fellow, Musculoskeletal Tumor Center, People's Hospital, Peking University, Beijing, China, March 2015 March 2016
- 43. Ji Guo, Research Fellow/PhD Student, July 2015 through December 2016, Tumor Study
- 44. Dongquing Zuo, MD, Research Fellow, October 2015 through February 2017, Mechanism(s) associated with pulmonary metastasis
- 45. Po-Kuei Wu, MD, Research Fellow, February-November 2016
- 46. Vitalii Serdiuk, PhD, Research Fellow, October 2016, FT-IR & Tumor Study
- 47. Hugo Giambini, PhD, T32 Research Fellow (2 year grant), July 2015-Sept 2018

# GRADUATE STUDENT AND CLINICAL RESIDENT SUPERVISION

- 1. Essy Bevrahesh, Doctoral Student in Bioengineering, Rice University, (Thesis Committee Member), 1998 2003
- 2. Elizabeth LeBleu Hedberg, Doctoral Student in Bioengineering, Rice University, (Thesis Committee Member), 1998 2004
- 3. Xun (Peter) Zhu, M.S., Research Assistant, Tissue Engineering and Polymeric Biomaterials Laboratory, December 1999 August, 2002. Xun matriculated at the University of Minnesota Medical School in August, 2002
- 4. Michael J. Moore, B.S., Doctoral Student in Biomedical Engineering, Mayo Graduate School (Main Thesis Advisor), August 1999 January 2005
- 5. Maria Jimenez Hamann, Doctoral Student in Biomedical Engineering, University of Toronto (Thesis Committee Member), 1999 2004
- 6. Jacob Oldham, M.D., Mayo Medical Student research quarter, July, 2000 September, 2000

- 7. Jeremy Blum, Doctoral Student in Chemical Engineering, Rice University, (Thesis Committee Member), 2000 2004
- 8. Bruno X. Fuchs, M.D., Doctoral Student in Tumor Biology, Mayo Graduate School of Medicine, (Thesis Committee Member), 2000 2004
- 9. Blaise Porter, Doctoral Student in Bioengineering, Georgia Institute of Technology, (Thesis Committee Member), 2000 2004
- 10. Joseph Schwab, M.D., Master of Science in Orthopedic Surgery Graduate Student, Insulin-Like Growth Factor Expression during Periosteal Chondrogenesis, (Thesis Committee Member), June 2000 September 2001
- 11. Diederik Kempen, M.D.-Ph.D. Doctoral Student, University of Utrecht, Netherlands. July, 2001- December, 2001; March 2005 March 2006
- 12. Mohammed Aslam Asif, Medical Student, Prague, Czech Republic, June, 2001- August, 2001
- 13. Katherine Rowley, Doctoral Student in Biomedical Engineering, Mayo Graduate School, (Thesis Committee Member), July 2001- present
- 14. Orlando Lopez, Doctoral Student in Biomedical Engineering, Mayo Graduate School, (Thesis Committee Member), July 2001 May 2007
- 15. Anthony V. Florschutz, Medical Student, Palacky University, Olomouc, Czech Republic, June 2002 August 2002
- 16. Ali R. Ghasemkhani, Research Trainee, Tissue Engineering and Polymeric Biomaterials Laboratory, June 2002 August 2002
- 17. Srinivasan Rajagopalan, Doctoral Student in Biomedical Engineering, Mayo Graduate School (Thesis Co-Advisor), July 2002 2007
- 18. Kee Won Lee, Doctoral Student in Biomedical Engineering, Mayo Graduate School, Mayo Clinic College of Medicine (Main Thesis Advisor), July 2003 2007
- 19. Chandler Long, Summer Medical Student Research Fellow, Northwestern University Medical School, June August 2004
- 20. Amine Issa, Doctoral Student in Biomedical Engineering, Mayo Graduate School, Mayo Clinic College of Medicine, July 2003 2008
- 21. Diederik H.R. Kempen, M.D., Doctoral Student in Orthopaedics, University of Utrecht, Utrecht, Netherlands, (Thesis Committee Member), April 2005 present
- 22. Anthony V. Florschutz, M.D., Doctoral Student in Biomedical Engineering, Mayo Graduate School, Mayo Clinic College of Medicine, (Main Thesis Advisor), July 2005 2007
- 23. Colleen M. Brophy, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine, Masters (Thesis Committee Member), November 2007 –2008
- 24. Heather Argadine, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Thesis Committee Member), November 2008 –2009
- 25. Miranda Shaw, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Thesis Committee Member), March 2008 June 2010
- 26. Matthias Pumberger, Medical Student, (Thesis Committee Member) Functionalized Hydrogel for Cartilage Tissue Engineering, Paracelsus University of Salzberg, Switzerland, December 2008 April 2009

- 27. Florian Wanivenhaus, Medical Student, (Thesis Committee Member) Effect of Hydroxyapatite on attachment and differentiation of osteoblasts, Paracelsus University of Salzberg, Switzerland, April 2009 August 2009
- 28. Fritz Wimbauer, Medical Student, (Thesis Committee Member), Paracelsus University of Salzberg, Switzerland, August 2009 January 2010
- 29. Philipp Moroder Medical Student, (Thesis Committee Member), Paracelsus University of Salzberg, Switzerland, April 2010 October 2010
- 30. Michelle Casper, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), August 2010-2015
- 31. Catalina Vallejo Giraldo, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), August 2010 2012
- 32. Scott M. Riester, MD, Resident, Orthopedic Surgery, Mayo Clinic, July 2011-July 2012
- 33. Katarina (Katcha) E. Taylor, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine (Main Thesis Advisor), November 2010 2012
- 34. Johannes Becker, Medical Student, Paracelsus University of Salzberg, Switzerland, February 13, 2012 June 8, 2012
- 35. Eric R. Wagner, MD, Resident, Orthopedic Surgery, Mayo Clinic, July 2012-July 2013
- 36. Alex Haumer, Medical Student, Paracelsus University of Salzberg, Switzerland, June 11, 2012 October, 2012
- 37. Steven Chase, Doctoral Student in Biomedical Engineering, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine, April 2012 June 2, 2014
- 38. Dalibel Bravo Hixson, (Masters Thesis Advisor) Center for Translational Activities, M.D., M.S. Student, Mayo Clinic College of Medicine, University of Puerto Rico School of Medicine, 2012-2014
- 39. Jarsoslav Chomic, Medical Student, Charles University, Faculty of Medicine, Hradec Kralove, Poland, June 25, 2012 September 14, 2012
- 40. Maurits Olthof, Medical Student, Parcelsus University of Salzberg, Switzlerland, November 2013-November 2014
- 41. Stephan Reumann, Medical Student, Parcelsus University of Salzberg, Switzerland, May August 2013
- 42. Maria Gonzales Porras, Medical Student. September 2012-January 2013
- 43. Carl Gustafson, Doctoral Student in Medical Pharmacology and Therapeutics. Mayo Graduate School; Thesis Advisor, May 2013-August 2017
- 44. Tewodros (Teddy) Mamo, Doctoral Student in Medical Pharmacology and Therapeutics. Mayo Graduate School; Thesis Advisor, July 2013- May 2017
- 45. Joshua Parry, MD, Resident, Orthopedic Surgery. Mayo Clinic Master of Science Program in Orthopaedic Surgery; Thesis Advisor, July 2013-July 2014
- 46. Richard Adamcik, Medical Student, Charles University in Prague, Czech Republic, July October 2013
- 47. Jose H. Jimenez, Center for Translational Science Activities, Masters Thesis Advisor, Center for Translational Activities, M.D., M.S. Student, Mayo Clinic College of Medicine, University of Puerto Rico School of Medicine, 2013-present.
- 48. Olena Kudina, Graduate Student, North Dekota State University, Fargo, October-November 2013

- 49. Fatemah Babaei, Medical Student, College of Science and Engineering, City University of Hong Kong, Kowloon, Hong Kong, October 2013-April 2014
- 50. Anna Stockhammer, Medical Student, Paracelsus University of Salzburg, Switzerland, March-June 2015
- 51. Alex Paulsen, Medical Student, University of Minnesota, July-August 2015
- 52. Viviana Serra Lopez, Medical Student, University of Puerto Rico, June-July 2015
- 53. Zdenek Bures, Medical Student, Charles University, Faculty of Medicine, Hradec Kralove, Czech Republic, July-August 2015
- 54. Bernadette Einhauer, Medical Student, Paracelsus University of Salzburg, Switzerland, June 27-Oct 28, 2016
- 55. Ian McAlister, M.D., Resident, Orthopedic Surgery, Jan-March 2016
- 56. Paul Sousa, M.D., Resident, Orthopedic Surgery, April-June 2016
- 57. Kapil Mehrotra, M.D., Resident, Orthopedic Surgery, July-Sept 2016
- 58. Joseph Popper, M.D., Resident, Orthopedic Surgery, Oct-Dec 2016
- 59. Jason Adler, M.D., Resident, Orthopedic Surgery, Oct-Dec 2016
- 60. Nicholas Hernandez, M.D., Resident, Orthopedic Surgery, Jan-March 2017
- 61. Joseph Statz, M.D., Resident, Orthopedic Surgery, March-May 2017
- 62. Elivis Francois, M.D., Resident, Orthopedic Surgery, July-Sept 2017
- 63. Ernest Young, M.D., Resident, Orthopedic Surgery, Oct-Dec 2017

### UNDERGRADUATE STUDENT SUPERVISION/INTERNS

- 1. Alexander Schabel, Summer Undergraduate Research Fellow (SURF), Mayo Graduate School, June 1999 August 1999
- 2. Blaise Porter, Summer Undergraduate Research Fellow (SURF), Mayo Graduate School, June 2000 August 2000
- 3. Ali R. Ghasemkhani, Summer Undergraduate Research Fellow (SURF), Mayo Graduate School, June 2000 August 2000
- 4. Sylaja Murkipudi, Summer Undergraduate Research Fellow (SURF), Mayo Graduate School, June 2001 August 2001
- 5. Nathan Liu, Summer Undergraduate Research Fellow (SURF), Mayo Graduate School, June, 2001- August, 2001; Summer Mentored Undergraduate Research Fellow, June 2002 August 2002
- 6. Elizabeth A. Adamec, Summer Mentored Undergraduate Research Fellow, (Lafayette College, Easton, PA), Mayo Graduate School, June 2002 August 2002
- 7. Gregory Lee, Century High School-Mayo Foundation Mentorship Student, January 2002 June 2002; Summer Mentored Undergraduate Research Fellow, June 2002 August 2002
- 8. Ellen Liang, Summer Mentored Undergraduate Research Fellow, (M.I.T., Cambridge, MA), June –August 2003, Summer Undergraduate Research Fellow (SURF), June August 2004
- 9. Coen Wijdicks, Summer Mentored Undergraduate Research Fellow, (Colorado State University, Fort Collins, CO), June August 2004
- 10. Cliff Lee, Summer Mentored Undergraduate Research Fellow, June September 2004
- 11. Catalina Vallejo Giraldo, Research Temporary Professional, January July 2006
- 12. Karina Ak-Canta Research Temporary Professional, March July 2006
- 13. Jason Britson, Mayo Summer Undergraduate Research Fellow (SURF), June August 2006

- 14. Albrecht Heine-Geldren Research Temporary Professional, April August 2007
- 15. Alexandra Yaszemski, Summer Mentored Undergraduate Research Fellowship (SMURF), May August 2007
- 16. Kristen Ozgo, Summer Mentorship Undergraduate Research Fellowship (SMURF), May August 2007.
- 17. David Gaustad, Summer Mentorship Undergraduate Research Fellowship (SMURF), May August 2007; May 2008 August 2008
- 18. Teresa Murray, Summer Undergraduate Research Fellow (SURF), May August 2007.
- 19. Tanya Sylvester, Summer Mentorship Undergraduate Research Fellowship (SMURF), May-August 2008
- 20. Aravind Maran, Summer Mentorship Undergraduate Research Fellowship (SMURF), June August 2009
- 21. Abhay Kulkarni, Summer Undergraduate Research Fellow (SURF), June August 2009
- 22. Zen Liu, Summer Undergraduate Research Fellow (SURF), June August 2009
- 23. Evan Morris, Century High School-Mayo Foundation Mentorship Student, September 2009 2010
- 24. Farzan Fatemi, Century High School-Mayo Foundation Mentorship Student, September 2010–January 2011
- 25. Matthew Schuelke, Summer Undergraduate Research Fellow (SURF), June August 2011
- 26. Katherine Warthen, Summer Undergraduate Research Fellow (SURF), June August 2012
- 27. Keith Whitlock, Summer Undergraduate Research Fellow (SURF), June August 2013
- 28. Allen Zhu, Summer Undergraduate Research Fellow (SURF), June August 2013
- 29. Kevin Bergen, Summer Undergraduate Research Employment Student, June August 2013
- 30. Sarah Dicker, Summer Undergraduate Research Fellow (SURF), June August 2014
- 31. Sheryl Wang, Summer Undergraduate Research Fellow (SURF), June-August 2014
- 32. Gabby Hanssen, Undergraduate Research Employment Program (UREP), June-August 2015
- 33. Charlotte E. Berry, Undergraduate Research Employment Program (UREP), July-Sept. 2015
- 34. Rachel Masek, High School Summer Mentorship Program, June-August 2015
- 35. Angela Patel, Undergraduate Research Employment Program (UREP), June-July 2015
- 36. Denise Medina Almora, Summer Undergraduate Research Fellow (SURF), May 30-Aug 4, 2017
- 37. Jeong min Oh, Summer Undergraduate Research Fellow (SURF), May 30-Aug 4, 2017
- 38. Mohammed Basier, Intern, June 12-Aug25, 2017
- 39. Alexander Barry, Intern, June 20-Aug 42017
- 40. Naren Chaudhry, Intern, June 20-Aug 4 2017
- 41. Mayar Allam, Intern, May 29-Aug 3, 2018
- 42. Madison Okuno,
- 43. Jie Xu.
- 44. Mayar Allam, Summer Undergraduate Research Fellow (SURF), May 29-Aug 3, 2018
- 45. Alexander Caughman, Summer Undergraduate Research Fellow (SURF), May 29-Aug 3, 2018
- 46. Phillipp Schacherl, Austrian Student, July 2-October 26, 2018
- 47. Roman Kostysyn, Czeck Republic,

#### **BIBLIOGRAPHY**

#### **Peer-Reviewed Manuscripts:**

- 1. Larson AN, Baky F, Ashraf A, Baghdadi YM, Treder V, David W. Polly Jr. DW, Yaszemski MJ: Minimum 20-Year Health Related Quality of Life and Surgical Rates following the Treatment of Adolescent Idiopathic Scoliosis. Spinal Deformity, submitted April 2018.
- 2. Arutyunyan GG, Sebastian A, Murdoch N, Rose PS, Wenger D, Sim FH, Yaszemski MJ: Prognostic Factors of Early Mortality in Patients Undergoing Spinopelvic Tumor Resection. Clin Orthop Rel Res, submitted March 2018.
- 3. Gustafson CT, Mamo T, Maran A, Yaszemski MJ: Efflux inhibition by IWR-1-endo confers sensitivity to doxorubicin effects in osteosarcoma cells. Biochemical Pharmacology 150:141-9, 2018.
- 4. Ciubuc JD, Manciu M, Maran A, Yaszemski MJ, Sundin EM, Bennet KE, Manciu FS: Raman spectroscopic and microscopic analysis for monitoring renal osteodystrophy signatures. Biosensors 8 (2): 38, 2018.
- 5. Hakim JS, Rodysill B, Chen BK, Schmeichel A, Yaszemski MJ, Windebank AJ, Madigan NN: Combinatorial Tissue Engineering Partially Restores Function after Spinal Cord Injury. bioRxiv 30 Jan 2018. doi: http://dx.doi.org/10.1101/254821; (Epub ahead of print)
- 6. Olthof MGL, Kempen DHR, Liu X, Dadsetan M, Tryfonidou MA, Yaszemski MJ, Dhert WJA, Lu L: Bone morphogenetic protein-2 release profile modulates bone formation in phosphorylated hydrogel. J Tissue Engineering and Regenerative Medicine March 31, 2018. doi: 10.1002/term.2664. (Epub ahead of print)
- 7. Wagner ER, Parry JA, Dadsetan M, Bravo D, Riester SM, VanWijnen AJ, Yaszemski MJ, Kakar S: VEGF-mediated angiogenesis and vascularization of a fumarate-crosslinked polycaprolactone (PCLF) scaffold. Connective Tissue Research 7 March 2018. doi.org/10.1080/03008207.2018.1424145 (Epub ahead of print)
- 8. Tomov M, Tou K, Winkel R, Puffer R, Bydon M, Nassr A, Huddleston P, Yaszemski M, Currier BL, Freedman B: Does Subcutaneous Infiltration of Liposomal Bupivacaine Following Single-Level Transforaminal Lumbar Interbody Fusion Surgery Improve Immediate Postoperative Pain Control? Asian Spine Journal 12 (1) 85-93, 2018.
- 9. Olthof MGL, Kempen DHR, Herrick JL, Yaszemski MJ, Dhert WJA, Lu L: Effect of different sustained bone morphogenetic protein-2 release kinetics on bone formation in poly(propylene fumarate) scaffolds. J Biomed Mat Res Part B-Applied Biomaterials 106(2):477-87, 2018. doi: 10.1002/jbm.b.33866. PubMed PMID: WOS:000419374000001.
- 10. Parry JA, Wagner ER, Kok PL, Dadsetan M, Yaszemski MJ, VanWijnen AJ, Kakar S: A Combination of a Polycaprolactone Fumarate Scaffold with Polyethylene Terephthalate Sutures for Intra-Articular Ligament Regeneration. Tissue Engineering Part A 24 (3-4), 245-53, 2018.doi: 10.1089/ten.tea.2016.0531. PubMed PMID: WOS:000423661000006.
- 11. Gilder H, Murphy ME, Alvi MA, Kerezoudis P, Shepherd D, Maloney PR, Yaszemski MJ, Morris JM, Dispenzieri A, Matsumoto JM, Bydon M: Skull base plasmacytoma: A unique case of POEMS syndrome with a plasmacytoma causing craniocervical instability. J Clin Neuroscience 47, 254-7, 2018. doi: 10.1016/j.jocn.2017.10.038. PubMed PMID: WOS:000423647400052.

- 12. Chen BK, Madigan NN, Hakim JS, Dadsetan M, McMahon SS, Yaszemski MJ, Windebank AJ: GDNF Schwann cells in hydrogel scaffolds promote regional axon regeneration, remyelination and functional improvement after spinal cord transection in rats. J Tissue Engineering & Regenerative Medicine 12 (1): E398-E407, 2018. doi: 10.1002/term.2431. PubMed PMID: WOS:000423431200038.
- 13. Giambini H, Currier BL, Yaszemski MJ, Nassr A: What is the future of patient-specific vertebral fracture prediction? Seminars in Spine Surgery 30 (1): 67-71, 2018.
- 14. Wanderman N, Freedman B, Currier BL, Huddleston PM, Yaszemski MJ, Nassr A: Interpreting the DXA analysis: When should you hold off on spinal fusion? Seminars in Spine Surgery 30 (1): 36-40, 2018
- 15. Su Y, Denbeigh JM, Camilleri ET, Riester SM, Parry JA, Wagner ER, Yaszemski MJ, Dietz AB, Cool SM, VanWijnen AJ, Kakar S: Extracellular matrix protein production in human adipose-derived mesenchymal stem cells on three-dimensional polycaprolactone (PCL) scaffolds responds to GDF5 or FGF2. Gene Reports 2017
- 16. Riester SM, Lin Y, Wang W, Cong L, Ali AMM, Peck SH, Smith LJ, Currier BL, Clark M, Huddleston PM, Krauss W, Yaszemski MJ, Morrey ME, Abdel MP, Bydon M, Qu W, Larson AN, VanWijnen AJ, Nassr A: RNA sequencing identifies gene regulatory networks controlling extracellular matrix synthesis in intervertebral disk tissues. J Orthop Res, 11 Dec 2017. (Epub ahead of print)
- 17. Pichelmann MA, Atkinson JLD, Fode-Thomas NC, Yaszemski MJ. Total lumbar facetectomy without fusion: short and long term follow-up in a single surgeon series. British Journal of Neurosurgery. 2017;31(5):531-7. doi: 10.1080/02688697.2017.1319905. PubMed PMID: WOS:000417922300004.
- 18. Parry JA, Olthof MGL, Shogren KL, Dadsetan M, VanWijnen AJ, Yaszemski MJ, Kakar S: Three-Dimension-Printed Porous Poly(Propylene Fumarate) Scaffolds with Delayed rhBMP-2 Release for Anterior Cruciate Ligament Graft Fixation. Tissue Engineering Part A 23(7-8), 359-65, 2017. doi: 10.1089/ten.tea.2016.0343. PubMed PMID: WOS:000399419400010.
- 19. Riester SM, Torres-Mora J, Dudakovic A, Camilleri ET, Wang W, Xu FH, et al. Hypoxia-related microRNA-210 is a diagnostic marker for discriminating osteoblastoma and osteosarcoma. Journal of Orthopaedic Research 35(5):1137-46, 2017. doi: 10.1002/jor.23344. PubMed PMID: WOS:000401367100024.
- 20. Mamo T, Mladek AC, Shogren KL, Gustafson C, Gupta SK, Riester SM, Maran A, Galindo M, VanWijnen AJ, Sarkaria JN, Yaszemski MJ: Inhibiting DNA-PK<sub>CS</sub> radiosensitizes human osteosarcoma cells. Biochemical and Biophysical Research Communications 486(2):307-13, 2017. doi: 10.1016/j.bbrc.2017.03.033. PubMed PMID: WOS:000399261200015.
- 21. Rezaei A, Giambini H, Rossman T, Carlson KD, Yaszemski MJ, Lu L, Dragomir-Daescu D: Are DXA/aBMD and QCT/FEA stiffness and strength estimates sensitive to sex and age? Annals of Biomedical Engineering 45(12): 2847-56, 2017. doi: 10.1007/s10439-017-1914-5. PubMed PMID: WOS:000415726200013.
- 22. Olthof MGL, Tryfonidou MA, Liu X, Pouran B, Meij B, Dhert WJA, Yaszemski MJ, Lu L, Alblas J, Kempen DHR: Phosphate functional groups improve OPF osteoconduction and BMP-2 osteoinductive efficacy. Tissue Engineering Part A, 25 Oct 2017 https://doi.org/10.1089/ten.TEA.2017.0229 (Epub ahead of print)

- 23. Madigan NN, Oswald D, Hakim JS, Chen B, Rodysill BR, Schmeichel AM, Yaszemski MJ, Windebank AJ: Regenerating Axons and Blood Vessels in Tissue Engineered Scaffolds Have Defined Spatial Relationships After Complete Spinal Cord Injury in Rats. Annals of Neurology 82: S199, 2017. PubMed PMID: WOS:000413198700426.
- 24. Jo E, Lewallen EA, Morrey LB, Riester SM, Trousdale WH, Salib CG, Reina N, Yaszemski MJ, Sanchez-Sotelo J, Morrey ME, VanWijnen AJ, Abdel MP: Biopolymer-based intra-articular delivery of DKK1 into the contracted rabbit knee. Gene Reports 8, 69-74, 2017. doi: 10.1016/j.genrep.2017.05.006. PubMed PMID: WOS:000413087200010.
- 25. Rossman T, Uthamaraj S, Rezaei A, McEligot S, Giambini H, Jasiuk I, Yaszemski MJ, Lu L, Dragomir-Daescu D: A method to estimate cadaveric femur cortical strains during fracture testing using digital image correlation. Journal of Visualized Experiments (JoVE) 127 e54942, 2017. doi: 10.3791/54942. PubMed PMID: 28994795 WOS:000415370200003.
- 26. Dragomir-Daescu D, Rezaei A, Rossman T, Uthamaraj S, Entwistle R, McEligot S, Lambert V, Giambini H, Jasiuk I, Yaszemski MJ, Lu L: Method and instrumented fixture for femoral fracture testing in a sideways fall-on-the-hip position. Journal of Visualized Experiments (JoVE) 126 e54928, 2017. doi: 10.3791/54928. PubMed PMID: WOS:000415369500007.
- 27. Dragomir-Daescu D, Rezaei A, Uthamaraj S, Rossman T, Bronk JT, Bolander M, Lambert V, McEligot S, Entwistle R, Giambini H, Jasiuk I, Yaszemski MJ, Lu L: Proximal Cadaveric Femur Preparation for Fracture Strength Testing and Quantitative CT-based Finite Element Analysis. J Visualized Experiments (JoVE) 121, 2017. doi: 10.3791/54925. PubMed PMID: WOS:000397848300012.
- 28. Wu P, Zhang SY, Spinner RJ, Lizardi MT, Gu YD, Yu C, Yaszemski MJ, Windebank AJ, Wang H: A novel triple immunoenzyme staining enables simultaneous identification of all muscle fiber types on a single skeletal muscle cryosection from normal, denervated or reinnervated rats. Neural Regeneration Research 12(8):1357-64, 2017. doi: 10.4103/1673-5374.213560. PubMed PMID: WOS:000409378200026.
- 29. Houdek MT, Rose PS, Bakri K, Wagner ER, Yaszemski MJ, Sim FH, Moran SL: Outcomes and Complications of Reconstruction with Use of Free Vascularized Fibular Graft for Spinal and Pelvic Defects Following Resection of a Malignant Tumor. J Bone Joint Surg-Am 99(13) e69, 2017. doi: 10.2106/jbjs.16.01458. PubMed PMID: WOS:000405607800002.
- 30. Wagner ER, Parry JA, Dadsetan M, Bravo D, Riester SM, VanWijnen AJ, Yaszemski MJ, Kakar S: Chondrocyte attachment, proliferation, and differentiation on three-dimensional polycaprolactone fumarate scaffolds. Tissue Engineering Part A 23 (13-14): 622-9, 2017. doi: 10.1089/ten.tea.2016.0341. PubMed PMID: WOS:000405672600004.
- 31. Clohisy DR, Yaszemski MJ, Lipman J: Leadership, communication, and negotiation across a diverse workforce. J Bone and Joint Surg-Am 99 (12), e60, 2017. doi: 10.2106/jbjs.16.00792. PubMed PMID: WOS:000404026500001.
- 32. Bravo D, Shogren KL, Zuo DQ, Wagner ER, Sarkar G, Yaszemski MJ, Maran A: 2-methoxyestradiol-mediated induction of Frzb contributes to cell death and autophagy in MG63 osteosarcoma cells. J Cellular Biochemistry 118 (6):1497-504, 2017. doi: 10.1002/jcb.25809. PubMed PMID: WOS:000398532500022.

- 33. van Wulfften Palthe OD, Janssen SJ, Wunder JS, Ferguson PC, Wei G, Rose PS, et al. What questionnaires to use when measuring quality of life in sacral tumor patients: the updated sacral tumor survey. Spine Journal. 2017; 17(5):636-44. doi: 10.1016/j.spinee.2016.11.004. PubMed PMID: WOS:000401104500004.
- 34. Gustafson CT, Mamo T, Shogren KL, Maran A, Yaszemski MJ: FH535 suppresses osteosarcoma growth in vitro and inhibits Wnt signaling through tankyrases. Frontiers in Pharmacology. 8 (285), 1-10, 2017. doi: 10.3389/fphar.2017.00285. PubMed PMID: WOS:000402263800001.
- 35. Liu XF, Paulsen A, Giambini H, Guo J, Miller AL, Lin PC, Yaszemski MJ, Lu L: A New Vertebral Body Replacement Strategy Using Expandable Polymeric Cages. Tissue Engineering Part A 23(5-6): 223-32, 2017. doi: 10.1089/ten.tea.2016.0246. PubMed PMID: WOS:000395558200005.
- 36. Gustafson CT, Mamo T, Maran A, Yaszemski MJ: Molecular strategies for modulating wnt signaling. Frontiers in Bioscience-Landmark. 2017;22:137-56. doi: 10.2741/4477. PubMed PMID: WOS:000397908600009.
- 37. Guo J, Liu XF, Miller AL, Waletzki BE, Yaszemski MJ, Lu L: Novel porous poly(propylene fumarate-co-caprolactone) scaffolds fabricated by thermally induced phase separation. J Biomed Mater Res Part A 105(1): 226-35, 2017. doi: 10.1002/jbm.a.35862. PubMed PMID: WOS:000389145400024.
- 38. van Wulfften Palthe OD, Houdek MT, Rose PS, Yaszemski MJ, Sim FH, Boland PJ, Healey JH, Hornicek FJ, Schwab JH: How Does the Level of Nerve Root Resection in En Bloc Sacrectomy Influence Patient-Reported Outcomes? Clin Orthop Rel Res 475(3): 607-16, 2017. doi: 10.1007/s11999-016-4794-3. PubMed PMID: WOS:000394138400010.
- 39. Cousin MA, Greenberg AJ, Koep TH, Angius D, Yaszemski MJ, Spinner RJ, and Windebank AJ: The value of systematic reviews in estimating the cost and barriers to translation in tissue engineering. Tissue Engineering Part B: Reviews 22 (6):430-7, 2016. doi: 10.1089/ten.teb.2016.0060. PubMed PMID: WOS:000389419000002.
- 40. Liu XF, Miller AL, Fundora KA, Yaszemski MJ, Lu L: Poly(epsilon-caprolactone) dendrimer cross-linked via metal-free click chemistry: injectable hydrophobic platform for tissue engineering. ACS Macro Letters 5 (11):1261-5, 2016. doi: 10.1021/acsmacrolett.6b00736. PubMed PMID: WOS:000388161100015.
- 41. Alonzo M, Qiu C, Maran A, Yaszemski MJ, Ciubuc J, Manciu M, Manciu F: Development of label-free Raman assessment of metastatic bone. Bulletin of the American Physical Society 61, 2016
- 42. Ewald TJ, Walker JA, Lewallen EA, Trousdale WH, Yaszemski MJ, Hanssen AD, Morrey BF, VanWijnen AJ, Sanchez-Sotelo J, Morrey ME, Abdel MP: Safety of intraarticular implantation of oligo poly(ethylene glycol) fumarate scaffolds into the rabbit knee. Tissue Engineering Part C: Methods 22 (10): 991-8, 2016. doi: 10.1089/ten.tec. 2016. 0209. PubMed PMID: WOS:000386857000008.
- 43. van Wulfften Palthe OD, Houdek M, Rose P, Yaszemski MJ, Hornicek FJ, Schwab JH: Patient-reported outcomes after sacral resection based on the level of nerve root resection. The Spine Journal 16 (10): S320, 2016.
- 44. Giambini H, Dragomir-Daescu D, Nassr A, Yaszemski MJ, Zhao CF. Quantitative computed tomography protocols affect material mapping and quantitative computed tomography-based finite-element analysis predicted stiffness. J Biomechanical

- Engineering-Transactions of the ASME138 (9), 2016. doi: 10.1115/1.4034172. PubMed PMID: WOS:000383260200003.
- 45. Aleem IS, Aleem I, Evaniew N, Busse JW, Yaszemski MJ, Agarwal A, Einhorn T, Bhandari M: Efficacy of electrical stimulators for bone healing: a meta-analysis of randomized sham-controlled trials. Scientific Reports 6, 317-24, 2016. doi: 10.1038/srep31724. PubMed PMID: WOS:000381614700001.
- 46. Moussallem CD, McCutcheon BA, Clarke MJ, Cui QQ, Currier BL, Yaszemski MJ, Huddleston PM, Rose PS, Freedman BA, Dekutoski MB, Bydon M, Nassr A: Perioperative complications in open versus percutaneous treatment of spinal fractures in patients with an ankylosed spine. J Clinical Neuroscience 30: 88-92, 2016.doi: 10.1016/j.jocn.2016.01.020. PubMed PMID: WOS:000379888500015.
- 47. Giambini H, Fang Z, Zeng H, Camp JJ, Yaszemski MJ, Lu L: Noninvasive failure load prediction of vertebrae with simulated lytic defects and biomaterial augmentation. Tissue Engineering Part C: Methods 22 (8):717-24, 2016. doi: 10.1089/ten.tec.2016.0078. PubMed PMID: WOS:000383181500001.
- 48. Maran A, Yaszemski MJ, Kohut A, Voronov A: Curcumin and osteosarcoma: can invertible polymeric micelles help? Materials 9 (7): 520, 2016. doi: 10.3390/ma9070520. PubMed PMID: WOS:000380761500022.
- 49. Maran A, Shogren KL, Yaszemski MJ: The estrogen metabolite 2-methoxyestradiol regulates eukaryotic initiation factor 4E (eIF4E) and inhibits protein synthesis in MG63 osteosarcoma cells. Genes & Diseases 3 (2):153-8. doi: 10.1016/j.gendis.2016.04.001. PubMed PMID: WOS:000384978600009.
- 50. Lu L, Liu XF, Yaszemski MJ: Conductive graphene oxide hydrogel composites with functionalized surface for nerve regeneration. The Faseb Journal 30 (1Sup), 1300-15, 2016. PubMed PMID: WOS:000406444700235.
- 51. Gustafson CT, Maran A, Yaszemski MJ: Porcupine inhibition stimulates osteosarcoma growth and non-canonical Wnt signaling. Cancer Research 76 (5Sup): B11, 2016. doi: 10.1158/1538-7445.pedca15-b11. PubMed PMID: WOS:000374168400042.
- 52. Nazarian A, Entezari V, Villa-Camacho JC, Zurakowski D, Katz JN, Hochman M, Baldini EH, Vartanians V, Rosen MP, Gebhardt MC, Terek RM, Damron TA, Yaszemski MJ, Snyder BD: Does CT-based rigidity analysis influence clinical decision-making in simulations of metastatic bone disease? Clin Orthop Rel Res 474 (3): 652-9, 2016. doi: 10.1007/s11999-015-4371-1. PubMed PMID: WOS:000370150000011.
- 53. Reumann S, Shogren KL, Yaszemski MJ, Maran A: Inhibition of autophagy increases 2-methoxyestradiol-induced cytotoxicity in SW1353 chondrosarcoma cells. J Cellular Biochemistry 117 (3):751-9, 2016. doi: 10.1002/jcb.25360. PubMed PMID: WOS:000368857900019.
- 54. Rubin JP, Gurtner GC, Liu W, March KL, Seppanen-Kaijansinkko R, Yaszemski MJ, Yoo JJ: Surgical therapies and tissue engineering: at the intersection between innovation and regulation. Tissue Engineering: Part A 22 (5-6): 397-400 2016. doi: 10.1089/ten.tea.2016.0002. PubMed PMID: WOS:000372457800001.
- 55. Gustafson CT, Boakye-Agyeman F, Brinkman CL, Reid JM, Patel R, Bajzer Z, Dadsetan M, Yaszemski MJ: Controlled delivery of vancomycin via charged hydrogels. Plos One 11 (1): e0146401, 2016. doi: 10.1371/journal.pone.0146401. PubMed PMID: WOS:000368033100032.

- 56. Liu XF, Yaszemski MJ, Lu L: Expansile crosslinked polymersomes for pH sensitive delivery of doxorubicin. Biomaterials Science 4 (2): 245-9, 2016. doi: 10.1039/c5bm00269a. PubMed PMID: WOS:000368945400004.
- 57. Liu XF, Miller AL, Park S, Waletzki BE, Terzic A, Yaszemski MJ, Lu L: Covalent crosslinking of graphene oxide and carbon nanotube into hydrogels enhances nerve cell responses. J Materials Chemistry B 4 (43): 6930-41, 2016. doi: 10.1039/c6tb01722c. PubMed PMID: WOS:000387882000003.
- 58. Kudina O, Shogren KL, Gustafson CT, Yaszemski MJ, Maran A, Voronov A: Invertible micellar polymer nanoassemblies target bone tumor cells but not normal osteoblast cells. Future Science Oa 1(3), 2015. doi: 10.4155/fso.15.14. PubMed PMID: WOS:000218435100009.
- 59. Wagner ER, Bravo D, Dadsetan M, Riester SM, Chase S, Westendorf JJ, Dietz AB, VanWijnen AJ, Yaszemski MJ, Kakar S: Ligament tissue engineering using a novel porous polycaprolactone fumarate scaffold and adipose tissue-derived mesenchymal stem cells grown in platelet lysate. Tissue Engineering: Part A 21(21-22):2703-13, 2015. doi: 10.1089/ten.tea.2015.0183. PubMed PMID: WOS:000364480600007.
- 60. Madigan NN, Chen BK, Hakim JS, Schmeichel AM, Knight AM, Zhang S, Nesbitt JJ, Dadsetan M, Chiang T, Yaszemski MJ, Windebank AJ: GDNF-secreting Schwann cells in multichannel OPF+ hydrogel scaffolds promote ascending axonal regeneration, remyelination and partial locomotor recovery following complete spinal cord transection in rats. Annals of Neurology 78: S107-S, 2015. PubMed PMID: WOS:000362668600324.
- 61. Kudina O, Shogren K, Gustafson CT, Yaszemski MJ, Maran A, Voronov A. Invertible micellar polymer assemblies for targeted delivery of curcumin to osteosarcoma cells. Abstracts of Papers of the American Chemical Society. 2015; 249. PubMed PMID: WOS:000411186504384.
- 62. Becker J, Lu L, Runge MB, Zeng H, Yaszemski MJ, Dadsetan M. Nanocomposite bone scaffolds based on biodegradable polymers and hydroxyapatite. J Biomed Mater Res Part A 103(8):2549-57, 2015. doi: 10.1002/jbm.a.35391. PubMed PMID: WOS:000357029500005.
- 63. Simon CG, Yaszemski MJ, Ratcliffe A, Tomlins P, Luginbuehl R, Tesk JA. ASTM workshop on standards and measurements for tissue engineering scaffolds. J Biomed Mater Res Part B-Applied Biomaterials 15:103(5):949-59, 2015. doi: 10.1002/jbm.b.33286. PubMed PMID: WOS:000356671800001.
- 64. Hakim JS, Rad ME, Grahn PJ, Chen BK, Knight AM, Schmeichel AM, Isaq NA, Dadsetan M, Yaszemski MJ, Windebank AJ: Positively charged oligo [poly(ethylene glycol) fumarate] scaffold implantation results in a permissive lesion environment after spinal cord injury in rat. Tissue Engineering Part A 21: (13-14):2099-114, 2015. doi: 10.1089/ten.tea.2015.0019. PubMed PMID: WOS:000363982900014.
- 65. Wang SF, Kempen DHR, de Ruiter GCW, Cai L, Spinner RJ, Windebank AJ, Yaszemski MJ, Lu L: Molecularly engineered biodegradable polymer networks with a wide range of stiffness for bone and peripheral nerve regeneration. Advanced Functional Materials 25 (18): 2715-24, 2015. doi: 10.1002/adfm.201500105. PubMed PMID: WOS:000354365600010.
- 66. Dadsetan M, Guda T, Runge MB, Mijares D, LeGeros RZ, LeGeros JP, Silliman DT, Lu L, Wenke JC, Brown Baer PR, Yaszemski MJ: Effect of calcium phosphate coating and

- rhBMP-2 on bone regeneration in rabbit calvaria using poly(propylene fumarate) scaffolds. Acta Biomaterialia 18: 9-20, 2015. doi: 10.1016/j.actbio.2014.12.024. PubMed PMID: WOS:000353605300002.
- 67. de Girolamo L, Niada S, Arrigoni E, Di Giancamillo A, Domeneghini C, Dadsetan M, Yaszemski MJ, Gastaldi D, Vena P, Taffetani M, Zerbi A, Sansone V, Peretti GM, Brini AT: Repair of osteochondral defects in the minipig model by OPF hydrogel loaded with adipose-derived mesenchymal stem cells. Regenerative Medicine 10 (2):135-51, 2015. doi: 10.2217/rme.14.77. PubMed PMID: WOS:000352326100006.
- 68. Lu L, Arbit HM, Herrick JL, Segovis SG, Maran A, Yaszemski MJ: Tissue engineered constructs: perspectives on clinical translation. Annals of Biomedical Engineering 43(3):796-804, 2015. doi: 10.1007/s10439-015-1280-0. PubMed PMID: WOS:000351742500024.
- 69. Nazarian A, Entezari V, Zurakowski D, Calderon N, Hipp JA, Villa-Camacho JC, Lin PP, Cheung FH, Aboulafia AJ, Turcotte R, Anderson ME, Gebhardt MC, Cheng EY, Terek RM, Yaszemski MJ, Damron TA, Snyder BD: Treatment planning and fracture prediction in patients with skeletal metastasis with CT-based rigidity analysis. Clinical Cancer Research 21(11): 2514-9, 2015. doi: 10.1158/1078-0432.ccr-14-2668. PubMed PMID: WOS:000357335800015.
- 70. Liu XF, Miller AL, Waletzki BE, Yaszemski MJ, Lu L: Novel biodegradable poly(propylene fumarate)-co-poly(L-lactic acid) porous scaffolds fabricated by phase separation for tissue engineering applications. Royal society of Chemistry Advances 5(27): 21301-9, 2015. doi: 10.1039/c5ra00508f. PubMed PMID: WOS:000350221600085.
- 71. Liu XF, Chen WJ, Gustafson CT, Miller AL, Waletzki BE, Yaszemski MJ, Lu L: Tunable tissue scaffolds fabricated by in situ crosslink in phase separation system. Royal Society of Chemistry Advances 5(122): 100824-33, 2015. doi: 10.1039/c5ra19406g. PubMed PMID: WOS:000365581700053.
- 72. Liu XF, Miller AL, Yaszemski MJ, Lu L: Biodegradable and crosslinkable PPF-PLGA-PEG self-assembled nanoparticles dual-decorated with folic acid ligands and Rhodamine B fluorescent probes for targeted cancer imaging. Royal Society of Chemistry Advances 5(42): 33275-82, 2015. doi: 10.1039/c5ra04096e. PubMed PMID: WOS:000353166700047.
- 73. Liu XF, Miller AL, Waletzki BE, Mamo TK, Yaszemski MJ, Lu L: Hydrolysable core crosslinked particles for receptor-mediated pH-sensitive anticancer drug delivery. New Journal of Chemistry 39 (11): 8840-7, 2015. doi: 10.1039/c5nj01404b. PubMed PMID: WOS:000363668200072.
- 74. Hakim JS, Rad ME, Grahn PJ, Chen BKK, Schmeichel AM, Isaq NA, et al. Engineering a Regeneration Permissive Environment Allowing for Recovery After Complete Spinal Cord Transection. Annals of Neurology. 2015;78:S66-S7. PubMed PMID: WOS:000362668600174.
- 75. Chawla A, Spinner RJ, Lizardi MT, Yaszemski MJ, Windebank AJ, Wang H. Non-invasive isometric force measurement of plantar flexors in rats. Muscle & Nerve. 2014; 50(5):812-21. doi: 10.1002/mus.24219. PubMed PMID: WOS:000344373700013.
- 76. Reumann S, Shogren K, Yaszemski M, Maran A: Inhibition of autophagy increases cytotoxic effects in chondrosarcoma cells. J Bone and Mineral Research 29:S375-S., 2014. PubMed PMID: WOS:000356598702234.

- 77. Wu P, Chawla A, Spinner RJ, Yu C, Yaszemski MJ, Windebank AJ, Wang H: Key changes in denervated muscles and their impact on regeneration and reinnervation. Neural Regeneration Research 9(20):1796-809, 2014. doi: 10.4103/1673-5374.143424. PubMed PMID: WOS:000344637400003.
- 78. Fang Z, Giambini H, Zeng H, Camp JJ, Dadsetan M, Robb RA, et al. Biomechanical Evaluation of an Injectable and Biodegradable Copolymer P(PF-co-CL) in a Cadaveric Vertebral Body Defect Model. Tissue Engineering Part A. 2014; 20(5-6):1096-102. doi: 10.1089/ten.tea.2013.0275. PubMed PMID: WOS:000332021600021.
- 79. Grahn PJ, Vaishya S, Knight AM, Chen BK, Schmeichel AM, Currier BL, Spinner RJ, Yaszemski MJ, Windebank AJ: Implantation of cauda equina nerve roots through a biodegradable scaffold at the conus medullaris in rat. Spine Journal 14(9): 2172-7, 2014. doi: 10.1016/j.spinee.2014.01.059. PubMed PMID: WOS:000341305100049.
- 80. Wang XK, Bledsoe KL, Graham RP, Asmann YW, Viswanatha DS, Lewis JE, Lewis JT, Chou MM, Yaszemski MJ, Jen J, Westendorf JJ, Oliveira AM: Recurrent PAX3-MAML3 fusion in biphenotypic sinonasal sarcoma. Nature Genetics 46(7):666-8, 2014. doi: 10.1038/ng.2989. PubMed PMID: WOS:000338093800005.
- 81. Madigan NN, Chen BK, Knight AM, Rooney GE, Sweeney E, Kinnavane L, et al. Comparison of Cellular Architecture, Axonal Growth, and Blood Vessel Formation Through Cell-Loaded Polymer Scaffolds in the Transected Rat Spinal Cord. Tissue Engineering Part A. 2014; 20(21-22):2985-97. doi: 10.1089/ten.tea.2013.0551. PubMed PMID: WOS:000344592600017.
- 82. Rui J, Runge MB, Spinner RJ, Yaszemski MJ, Windebank AJ, Wang H: Gait Cycle Analysis Parameters Sensitive for Functional Evaluation of Peripheral Nerve Recovery in Rat Hind Limbs. Annals of Plastic Surgery 73(4):405-11, 2014. doi: 10.1097/sap.000000000000008. PubMed PMID: WOS:000342379800012.
- 83. Riester S, Dudakovic A, Lewallen E, Torres-Morra J, Camilleri E, Rose P, et al. Diagnostic microRNA Biomarkers Differentiate Benign Osteblastoma and Malignant Osteosarcoma. Journal of Bone and Mineral Research. 2014; 29:S230-S. PubMed PMID: WOS:000356598701385.
- 84. Matsuura Y, Giambini H, Ogawa Y, Fang Z, Thoreson AR, Yaszemski MJ, et al. Specimen-Specific Nonlinear Finite Element Modeling to Predict Vertebrae Fracture Loads After Vertebroplasty. Spine. 2014; 39(22):E1291-E6. doi: 10.1097/brs.000000000000540. PubMed PMID: WOS:000344605800001.
- 85. Starantzis KA, Sakellariou VI, Rose PS, Yaszemski MJ, Papagelopoulos PJ. A new type of reconstruction of the hemipelvis after Type 3 amputative sacrectomy using pedicled fibula. Journal of Neurosurgery-Spine. 2014; 21(2):195-202. doi: 10.3171/2014.1.spine13245. PubMed PMID: WOS:000339472800011.
- 86. Yang CH, Shogren KL, Goyal R, Bravo D, Yaszemski MJ, Maran A: RNA-dependent protein kinase is essential for 2-Methoxyestradiol induced autophagy in osteosarcoma cells. Plos One. 8(3), 2013. doi: 10.1371/journal.pone.0059406. PubMed PMID: WOS:000317562100128.
- 87. McGee-Lawrence ME, Bradley EW, Dudakovic A, Carlson SW, Ryan ZC, Kumar R, et al. Histone deacetylase 3 is required for maintenance of bone mass during aging. Bone. 2013; 52(1):296-307. doi: 10.1016/j.bone.2012.10.015. PubMed PMID: WOS:000312750700035.

- 88. Wang X, Graham RP, Lewis JE, Lewis JT, Erickson-Johnson MR, Yaszemski M, Oliveira AM, et al. Identification of Novel PAX3-MAML3 Fusion Gene in Low Grade Sinonasal Sarcoma with Neural and Myogenic Features by Transcriptome Analysis. Modern Pathology. 2013;26:23A-A. PubMed PMID: WOS:000314444400086.
- 89. Yaszemski MJ, Mikos AG: Porous polymers in tissue engineering and regenerative medicine applications. Abstracts of Papers of the American Chemical Society. 245, 2013. PubMed PMID: WOS:000324303604123.
- 90. McGee-Lawrence ME, Bradley EW, Dudakovic A, Carlson SW, Ryan ZC, Kumar R, et al. Histone deacetylase 3 is required for maintenance of bone mass during aging (vol 52, pg 296, 2013). Bone. 2013; 53(1):320-. doi: 10.1016/j.bone.2012.12.005. PubMed PMID: WOS:000314257100043.
- 91. Wang H, Spinner RJ, Rui J, Yaszemski MJ, Windebank AJ: Outcomes evaluation modalities in rat sciatic nerve injury: the existing and non-existing correlations. J Peripheral Nervous System 18:123-4, 2013. PubMed PMID: WOS:000320620200315.
- 92. Wang H, Spinner RJ, Wu P, Gu Y, Yaszemski MJ, Windebank AJ: Delayed repair of the rat sciatic nerve: feasibility and application of a novel model in peripheral nerve research. J Peripheral Nervous System 18:124-, 2013. PubMed PMID: WOS:000320620200316.
- 93. Luangphakdy V, Walker E, Shinohara K, Pan H, Hefferan T, Bauer TW, et al. Evaluation of Osteoconductive Scaffolds in the Canine Femoral Multi-Defect Model. Tissue Engineering Part A. 2013; 19 (5-6):634-48. doi: 10.1089/ten.tea.2012.0289. PubMed PMID: WOS:000314581100006
- 94. Bravo D, Shogren KL, Riester SM, Wagner ER, Herrick JL, Okuno SH, et al. Wnt antagonists in osteosarcoma patients. Journal of Clinical Oncology. 2013; 31(15). PubMed PMID: WOS:000335419600305.
- 95. Caralla T, Joshi P, Fleury S, Luangphakdy V, Shinohara K, Pan H, et al. In Vivo Transplantation of Autogenous Marrow-Derived Cells Following Rapid Intraoperative Magnetic Separation Based on Hyaluronan to Augment Bone Regeneration. Tissue Engineering Part A. 2013; 19(1-2):125-34. doi: 10.1089/ten.tea.2011.0622. PubMed PMID: WOS:000312598400013.
- 96. Wu P, Spinner RJ, Gu YD, Yaszemski MJ, Windebank AJ, Wang H: Delayed repair of the peripheral nerve: A novel model in the rat sciatic nerve. Journal of Neuroscience Methods 214(1):37-44, 2013. doi: 10.1016/j.jneumeth.2013.01.003. PubMed PMID: WOS:000315757000006.
- 97. van der Deen M, Taipaleenmaki H, Zhang Y, Teplyuk NM, Gupta A, Cinghu S, et al. MicroRNA-34c Inversely Couples the Biological Functions of the Runt-related Transcription Factor RUNX2 and the Tumor Suppressor p53 in Osteosarcoma. Journal of Biological Chemistry. 2013; 288(29):21307-19. doi: 10.1074/jbc.M112.445890. PubMed PMID: WOS:000322014400050.
- 98. Maran A, Dadsetan M, Buenz CM, Shogren KL, Lu LC, Yaszemski MJ. Hydrogel-PLGA delivery system prolongs 2-methoxyestradiol-mediated anti-tumor effects in osteosarcoma cells. Journal of Biomedical Materials Research Part A. 2013; 101(9):2491-9. doi: 10.1002/jbm.a.34550. PubMed PMID: WOS:000322061900005.
- 99. Dadsetan M, Taylor KE, Yong C, Bajzer Z, Lu LC, Yaszemski MJ. Controlled release of doxorubicin from pH-responsive microgels. Acta Biomaterialia. 2013; 9(3):5438-46. doi: 10.1016/j.actbio.2012.09.019. PubMed PMID: WOS:000315536000003.

- 100. Wang X, Graham RP, Lewis JE, Lewis JT, Erickson-Johnson MR, Yaszemski M, Oliveira AM, et al. Identification of Novel PAX3-MAML3 Fusion Gene in Low Grade Sinonasal Sarcoma with Neural and Myogenic Features by Transcriptome Analysis. Laboratory Investigation 93:23A-A, 2013. PubMed PMID: WOS:000314789300086.
- 101. Dudakovic A, VanWijnen AJ, Stein G, Westendorf JJ, Kvasha S, Li XD, Yaszemski MJ, Montecino M, Van Leeuwen J, Hesse E, Cool S, Dietz A: Epigenetic Landscaping using HDAC Inhibitors Primes Multi-Potent Human Adipose-Derived Mesenchymal Stem Cells for Osteogenic Lineage-Commitment. Journal of Bone and Mineral Research. 2013; 28. PubMed PMID: WOS:000332035803144.
- 102. Daly WT, Knight AM, Wang H, de Boer R, Giusti G, Dadsetan M, et al. Comparison and characterization of multiple biomaterial conduits for peripheral nerve repair. Biomaterials. 2013; 34(34):8630-9. doi: 10.1016/j.biomaterials.2013.07.086. PubMed PMID: WOS:000324450600009.
- 103. de Boer R, Borntraeger A, Knight AM, Hebert-Blouin MN, Spinner RJ, Malessy MJA, et al. Short- and long-term peripheral nerve regeneration using a poly-lactic-coglycolic-acid scaffold containing nerve growth factor and glial cell line-derived neurotrophic factor releasing microspheres. Journal of Biomedical Materials Research Part A. 2012; 100A(8):2139-46. doi: 10.1002/jbm.a.34088. PubMed PMID: WOS:000305509700024.
- 104. Luangphakdy V, Shinohara K, Pan H, Hefferan T, Bauer T, Vasanji A, et al. Evaluation of osteoconductive scaffolds in the canine femoral multi-defect model. Journal of Tissue Engineering and Regenerative Medicine. 2012; 6:17-8. PubMed PMID: WOS:000308313000064.
- 105. Rui J, Dadsetan M, Runge MB, Spinner RJ, Yaszemski MJ, Windebank AJ, Wang H: Controlled release of vascular endothelial growth factor using poly-lactic-coglycolic acid microspheres: In vitro characterization and application in polycaprolactone fumarate nerve conduits. Acta Biomaterialia. 2012; 8(2):511-8. doi: 10.1016/j.actbio.2011.10.001. PubMed PMID: WOS:000301081400005.
- 106. Lehman RA, Huddleston P, Yaszemski M. Axial Spine Injuries in the Current Conflicts in Iraq and Afghanistan. Journal of the American Academy of Orthopaedic Surgeons. 2012;20:S13-S7. doi: 10.5435/jaaos-20-08-s13. PubMed PMID: WOS:000307199000005.
- 107. Kim J, Sharma A, Runge B, Waters H, Doll B, McBride S, et al. Osteoblast growth and bone-healing response to three-dimensional poly(e-caprolactone fumarate) scaffolds. Journal of Tissue Engineering and Regenerative Medicine. 2012; 6(5):404-13. doi: 10.1002/term.442. PubMed PMID: WOS:000303001200007.
- 108. Kurup AN, Woodrum DA, Morris JM, Atwell TD, Schmit GD, Welch TJ, Yaszemski MJ, Callstrom MR: Cryoablation of recurrent sacrococcygeal tumors. J Vascular & Interventional Radiology 23 (8): 1070-5, 2012. doi: 10.1016/j.jvir.2012.05.043. PubMed PMID: WOS:000306865600013.
- 109. de Girolamo L, Niada S, Arrigoni E, Di Giancamillo A, Domeneghini C, Dadasetan M, et al. Autologous and heterologous adipose derived stem cells seeded on oligo(polyethylene glycol) fumarate hydrogel scaffold are effective in the regeneration of critical osteochondral defects in minipig model. Journal of Tissue Engineering and Regenerative Medicine. 2012; 6:397-8. PubMed PMID: WOS:000308313003269.

- 110. Dadsetan M, Giuliani M, Wanivenhaus F, Runge MB, Charlesworth JE, Yaszemski MJ. Incorporation of phosphate group modulates bone cell attachment and differentiation on oligo(polyethylene glycol) fumarate hydrogel. Acta Biomaterialia. 2012; 8(4):1430-9. doi: 10.1016/j.actbio.2011.12.031. PubMed PMID: WOS:000301873000004.
- 111. Angius D, Wang H, Spinner RJ, Gutierrez-Cotto Y, Yaszemski MJ, Windebank AJ. A systematic review of animal models used to study nerve regeneration in tissue-engineered scaffolds. Biomaterials. 2012; 33(32):8034-9. doi: 10.1016/j.biomaterials.2012.07.056. PubMed PMID: WOS:000309306800012.
- 112. Runge MB, Wang H, Spinner RJ, Windebank AJ, Yaszemski MJ: Reformulating polycaprolactone fumarate to eliminate toxic diethylene glycol: Effects of polymeric branching and autoclave sterilization on material properties. Acta Biomaterialia. 8(1):133-43, 2012. doi: 10.1016/j.actbio.2011.08.023. PubMed PMID: WOS:000298763500015.
- 113. Wang XK, Krishnan C, Nguyen EP, Meyer KJ, Oliveira JL, Yang P, Yi ES, Erickson-Johnson MR, Yaszemski MJ, Maran A, Oliveira AM: Fusion of dynactin 1 to anaplastic lymphoma kinase in inflammatory myofibroblastic tumor. Human Pathology 43(11):2047-52, 2012. doi: 10.1016/j.humpath.2012.02.014. PubMed PMID: WOS:000310654500031.
- 114. Sherman CE, Rose PS, Pierce LL, Yaszemski MJ, Sim FH. Prospective assessment of patient morbidity from prone sacral positioning Clinical article. J Neurosurgery-Spine. 2012;16(1):51-6. doi: 10.3171/2011.8.spine11560. PubMed PMID: WOS:000298631100011
- 115. Wimbauer F, Yang CH, Shogren KL, Zhang MZ, Goyal R, Riester SM, Yaszemski MJ, et al. Regulation of interferon pathway in 2-methoxyestradiol-treated osteosarcoma cells. Bmc Cancer. 2012;12. doi: 10.1186/1471-2407-12-93. PubMed PMID: WOS:000307454400001.
- 116. Runge MB, Windebank AJ, Yaszemski MJ: Development of photo degradable polycaprolactone fumarate block copolymers. Abstracts of Papers of the American Chemical Society. 2012;243. PubMed PMID: WOS:000324503204364.
- 117. Chen BKK, Knight AM, Madigan NN, Gross L, Dadsetan M, Nesbitt JJ, et al. Comparison of polymer scaffolds in rat spinal cord: A step toward quantitative assessment of combinatorial approaches to spinal cord repair. Biomaterials. 2011; 32 (32):8077-86. doi: 10.1016/j.biomaterials.2011.07.029. PubMed PMID: WOS:000295241200005.
- 118. Wang H, Runge MB, Rui J, Knight AM, Spinner RJ, Windebank AJ, et al. Conductive polymer scaffolds for repair of rat sciatic nerve. Journal of the Peripheral Nervous System 16: S148-S, 2011. PubMed PMID: WOS:000293510300319.
- 119. de Boer R, Knight AM, Borntraeger A, Hebert-Blouin MN, Spinner RJ, Malessy MJA, et al. Rat sciatic nerve repair with a poly(lactic-co-glycolic) acid scaffold and nerve growth factor releasing microspheres. Microsurgery. 2011;31(4):293-302. doi: 10.1002/micr.20869. PubMed PMID: WOS:000290479000008.
- 120. Dadsetan M, Pumberger M, Casper ME, Shogren K, Giuliani M, Ruesink T, et al. The effects of fixed electrical charge on chondrocyte behavior. Acta Biomaterialia. 2011; 7(5):2080-90. doi: 10.1016/j.actbio.2011.01.012. PubMed PMID: WOS:000290649500017.

- 121. Yan J, Li JM, Runge MB, Dadsetan M, Chen QS, Lu L, Yaszemski MJ: Crosslinking characteristics and mechanical properties of an injectable biomaterial composed of polypropylene fumarate and polycaprolactone co-polymer. Journal of Biomaterials Science, Polymer Edition 22(4-6):489-504, 2011. doi: 10.1163/092050610x487765. PubMed PMID: WOS:000285645500006.
- 122. Rui J, Wang H, Yaszemski MJ, Spinner RJ, Windebank AJ: Controlled release of VEGF using PLGA microspheres. Journal of the Peripheral Nervous System. 2011; 16:S120-S. PubMed PMID: WOS:000293510300258
- 123. Lindahl K, Barnes AM, Fratzl-Zelman N, Whyte MP, Hefferan TE, Makareeva E, Brusel M, Yaszemski MJ, Rubin CJ, Kindmark A, Roschger P, Klaushofer P, McAlister WH, Mumm S, Leiken S, Kessler E, Boskey AL, Ljunggren O, Marini JC: COL1 C-propeptide cleavage site mutations cause high bone mass osteogenesis imperfecta. Human Mutation 32 (6): 598-609, 2011. doi: 10.1002/humu.21475. PubMed PMID: WOS:000291564000011.
- 124. Wang X, Krishnan C, Nguyen E, Mayer KJ, Oliveira JL, Yi JE, Yaszemski MJ, Oliveira AM, et al. Fusion of Dynactin 1 (DCTN1) to ALK in Inflammatory Myofibroblastic Tumor. Modern Pathology 24:22A-3A, 2011. PubMed PMID: WOS:000287282300082.
- 125. Rooney GE, Knight AM, Madigan NN, Gross L, Chen BK, Giraldo CV, et al. Sustained Delivery of Dibutyryl Cyclic Adenosine Monophosphate to the Transected Spinal Cord Via Oligo (Polyethylene Glycol) Fumarate Hydrogels. Tissue Engineering Part A. 2011; 17(9-10):1287-302. doi: 10.1089/ten.tea.2010.0396. PubMed PMID: WOS:000289719500011.
- 126. Novais EN, Rose PS, Yaszemski MJ, Sim FH. Aneurysmal Bone Cyst of the Cervical Spine in Children. Journal of Bone and Joint Surgery-American Volume. 2011; 93A (16):1534-43. doi: 10.2106/jbjs.j.01430. PubMed PMID: WOS:000294272800008.
- 127. Moroder P, Runge MB, Wang HA, Ruesink T, Lu L, Spinner RJ, Windebank AJ, Yaszemski MJ: Material properties and electrical stimulation regimens of polycaprolactone fumarate-polypyrrole scaffolds as potential conductive nerve conduits. Acta Biomaterialia 7(3): 944-53, 2011. doi: 10.1016/j.actbio.2010.10.013. PubMed PMID: WOS:000287643900004.
- 128. Windebank AJ, Yao L, de Ruiter GCW, Wang H, Knight AM, Spinner RJ, et al. Development of a multichannel collagen nerve conduit and its effect on controlling dispersion of axonal regeneration. Journal of the Peripheral Nervous System 16:S150-S1, 2011. PubMed PMID: WOS:000293510300324.
- 129. Wang XK, Asmann YW, Erickson-Johnson MR, Oliveira JL, Zhang HY, Moura RD, Lazar AJ, Lev D, Bill K, Lloyd RV, Yaszemski MJ, Maran A, Oliveira AM: High-resolution genomic mapping reveals consistent amplification of the fibroblast growth factor receptor substrate 2 gene in well-differentiated and dedifferentiated liposarcoma. Genes Chromosomes & Cancer 50(11):849-58, 2011. doi: 10.1002/gcc.20906. PubMed PMID: WOS:000295208800001.
- 130. Undale A, Fraser D, Hefferan T, Kopher RA, Herrick J, Evans GL, et al. Induction of Fracture Repair by Mesenchymal Cells Derived from Human Embryonic Stem Cells or Bone Marrow. Journal of Orthopaedic Research. 2011; 29(12):1804-11. doi: 10.1002/jor.21480. PubMed PMID: WOS:000297913500002.

- 131. Wang H, Hebert-Blouin MN, Spinner RJ, Yaszemski MJ, Windebank AJ: Creation of an ischemia/fibrosis limb model and its impact on nerve regeneration. Journal of the Peripheral Nervous System 16:S147-S8, 2011. PubMed PMID: WOS:000293510300318.
- 132. Utter A, Anderson ML, Cunniff JG, Kaufman KR, Jelsing EJ, Patrick TA, et al. Video Fluoroscopic Analysis of the Effects of Three Commonly-Prescribed Off-the-Shelf Orthoses on Vertebral Motion. Spine. 2010; 35(12):E525-E9. doi: 10.1097/BRS.0b013e3181c62fa1. PubMed PMID: WOS:000278074400017.
- 133. Moroder P, Runge MB, Ruesink T, Windebank A, Yaszemski MJ: Application of electrical stimulation through conductive poly(caprolactone fumarate)-polypyrrole scaffolds enhances nerve regeneration. Wound Repair and Regeneration 18 (6):A90-A, 2010. PubMed PMID: WOS:000283991000057.
- Mrosek EH, Schagemann JC, Chung HW, Fitzsimmons JS, Yaszemski MJ, Mardones RM, et al. Porous Tantalum and Poly-epsilon-Caprolactone Biocomposites for Osteochondral Defect Repair: Preliminary Studies in Rabbits. Journal of Orthopaedic Research. 2010; 28(2):141-8. doi: 10.1002/jor.20983. PubMed PMID: WOS:000273675700001.
- 135. Hesse E, Hefferan TE, Tarara JE, Haasper C, Meller R, Krettek C, et al. Collagen type I hydrogel allows migration, proliferation, and osteogenic differentiation of rat bone marrow stromal cells. Journal of Biomedical Materials Research Part A. 2010; 94A(2):442-9. doi: 10.1002/jbm.a.32696. PubMed PMID: WOS:000279482600012.
- 136. Larsen M, Willems WF, Pelzer M, Friedrich PF, Yaszemski MJ, Bishop AT. Augmentation of Surgical Angiogenesis in Vascularized Bone Allotransplants with Host-Derived A/V Bundle Implantation, Fibroblast Growth Factor-2, and Vascular Endothelial Growth Factor Administration. Journal of Orthopaedic Research. 2010; 28(8):1015-21. doi: 10.1002/jor.21098. PubMed PMID: WOS:000280217000006.
- 137. Lee KW, Wang SF, Dadsetan M, Yaszemski MJ, Lu LC. Enhanced Cell Ingrowth and Proliferation through Three-Dimensional Nanocomposite Scaffolds with Controlled Pore Structures. Biomacromolecules. 2010; 11(3):682-9. doi: 10.1021/bm901260y. PubMed PMID: WOS:000275164500020.
- 138. Runge MB, Dadsetan M, Baltrusaitis J, Knight AM, Ruesink T, Lazcano EA, Lu L, Windebank AJ, Yaszemski MJ: The development of electrically conductive polycaprolactone fumarate-polypyrrole composite materials for nerve regeneration. Biomaterials. 2010; 31(23):5916-26. doi: 10.1016/j.biomaterials.2010.04.012. PubMed PMID: WOS:000279719600002.
- 139. Benedikt MB, Mahlum EW, Shogren KL, Subramaniam M, Spelsberg TC, Yaszemski MJ, et al. 2-Methoxyestradiol-Mediated Anti-Tumor Effect Increases Osteoprotegrin Expression in Osteosarcoma Cells. Journal of Cellular Biochemistry. 2010;109(5):950-6. doi: 10.1002/jcb.22473. PubMed PMID: WOS:000276418900014.
- 140. Kempen DHR, Creemers LB, Alblas J, Lu LC, Verbout AJ, Yaszemski MJ, et al. Growth Factor Interactions in Bone Regeneration. Tissue Engineering Part B-Reviews. 2010;16(6):551-66. doi: 10.1089/ten.teb.2010.0176. PubMed PMID: WOS:000285230400001.
- 141. Zhu X, Liu N, Yaszemski MJ, Lu L: Effects of composite formulation on mechanical properties of biodegradable poly(propylene fumarate)/bone fiber scaffolds.

- International Journal of Polymer Science. 2010. doi: 10.1155/2010/270273. PubMed PMID: WOS:000208425400007.
- 142. de Boer R, Knight AM, Spinner RJ, Malessy MJA, Yaszemski MJ, Windebank AJ. In vitro and in vivo release of nerve growth factor from biodegradable poly-lactic-co-glycolic-acid microspheres. Journal of Biomedical Materials Research Part A. 2010;95A(4):1067-73. doi: 10.1002/jbm.a.32900. PubMed PMID: WOS:000284023200011.
- 143. Berven SH, Yaszemski MJ, Newton PO, Christianson W, Aberman HM, Moreau JC, Mulcahey MJ, Betz RR: Introduction of New Devices and Technologies Into a Spine Surgery Practice: A Review of Processes and Regulations. Orthopedics. 2010;33(10):742-7. doi: 10.3928/01477447-20100826-18. PubMed PMID: WOS:000290080000007.
- 144. Dadsetan M, Liu Z, Pumberger M, Giraldo CV, Ruesink T, Lu LC, et al. A stimuli-responsive hydrogel for doxorubicin delivery. Biomaterials. 2010;31(31):8051-62. doi: 10.1016/j.biomaterials.2010.06.054. PubMed PMID: WOS:000282109100020.
- 145. Kempen DHR, Lu LC, Hefferan TE, Creemers LB, Heijink A, Maran A, et al. Enhanced Bone Morphogenetic Protein-2-Induced Ectopic and Orthotopic Bone Formation by Intermittent Parathyroid Hormone (1-34) Administration. Tissue Engineering Part A. 2010; 16(12):3769-77. doi: 10.1089/ten.tea.2010.0173. PubMed PMID: WOS:000285143300021.
- 146. Kim J, Dadsetan M, Ameenuddin S, Windebank AJ, Yaszemski MJ, Lu LC. In vivo biodegradation and biocompatibility of PEG/sebacic acid-based hydrogels using a cage implant system. Journal of Biomedical Materials Research Part A. 2010;95A(1):191-7. doi: 10.1002/jbm.a.32810. PubMed PMID: WOS:000281448700020.
- 147. Sampedro MF, Huddleston PM, Piper KE, Karau MJ, Dekutoski MB, Yaszemski MJ, et al. A Biofilm Approach to Detect Bacteria on Removed Spinal Implants. Spine. 2010;35(12):1218-24. doi: 10.1097/BRS.0b013e3181c3b2f3. PubMed PMID: WOS:000278074400009.
- 148. Piper KE, Fernandez-Sampedro M, Steckelberg KE, Mandrekar JN, Karau MJ, Steckelberg JM, et al. C-Reactive Protein, Erythrocyte Sedimentation Rate and Orthopedic Implant Infection. Plos One. 2010; 5(2). doi: 10.1371/journal.pone.0009358. PubMed PMID: WOS:000274923900019.
- 149. Runge MB, Dadsetan M, Baltrusaitis J, Ruesink T, Lu L, Windebank AJ, Yaszemski MJ: Development of Electrically Conductive Oligo(polyethylene glycol) Fumarate-Polypyrrole Hydrogels for Nerve Regeneration. Biomacromolecules 11(11): 2845-53, 2010. doi: 10.1021/bm100526a. PubMed PMID: WOS:000283810900004.
- 150. Yao L, de Ruiter GCW, Wang H, Knight AM, Spinner RJ, Yaszemski MJ, Windebank AJ, Pandit A: Controlling dispersion of axonal regeneration using a multichannel collagen nerve conduit. Biomaterials 31(22): 5789-97, 2010. doi: 10.1016/j.biomaterials.2010.03.081. PubMed PMID: WOS:000279092900008.
- 151. Kirmani S, Tebben PJ, Lteif AN, Gordon D, Clarke BL, Hefferan TE, et al. Germline TGF-beta Receptor Mutations and Skeletal Fragility: A Report on Two Patients with Loeys-Dietz Syndrome. American Journal of Medical Genetics Part A. 2010;152A(4):1016-9. doi: 10.1002/ajmg.a.33356. PubMed PMID: WOS:000276754000035.

- 152. Kim J, Yaszemski MJ, Lu LC. Development of biodegradable and injectable macromers based on poly(ethylene glycol) and diacid monomers. Journal of Biomedical Materials Research Part A. 2009;90A(4):1010-20. doi: 10.1002/jbm.a.32166. PubMed PMID: WOS:000268940100007.
- 153. Kim J, Yaszemski MJ, Lu LC. Three-Dimensional Porous Biodegradable Polymeric Scaffolds Fabricated with Biodegradable Hydrogel Porogens. Tissue Engineering Part C-Methods. 2009;15(4):583-94. doi: 10.1089/ten.tec.2008.0642. PubMed PMID: WOS:000272609100006.
- 154. Kim J, Hefferan TE, Yaszemski MJ, Lu LC. Potential of Hydrogels Based on Poly(Ethylene Glycol) and Sebacic Acid as Orthopedic Tissue Engineering Scaffolds. Tissue Engineering Part A. 2009;15(8):2299-307. doi: 10.1089/ten.tea.2008.0326. PubMed PMID: WOS:000268703400039.
- 155. Krych AJ, Rooney GE, Chen B, Schermerhorn TC, Ameenuddin S, Gross L, et al. Relationship between scaffold channel diameter and number of regenerating axons in the transected rat spinal cord. Acta Biomaterialia. 2009;5(7):2551-9. doi: 10.1016/j.actbio.2009.03.021. PubMed PMID: WOS:000270636900020.
- 156. Kempen DHR, Lu L, Heijink A, Hefferan TE, Creemers LB, Maran A, et al: Effect of local sequential VEGF and BMP-2 delivery on ectopic and orthotopic bone regeneration. Biomaterials. 2009; 30(14):2816-25. doi: 10.1016/j.biomaterials.2009.01.031. PubMed PMID: WOS:000264953900018.
- 157. Biermann JS, Holt GE, Lewis VO, Schwartz HS, Yaszemski MJ. Metastatic Bone Disease: Diagnosis, Evaluation, and Treatment. Journal of Bone and Joint Surgery-American Volume. 2009;91A(6):1518-30. PubMed PMID: WOS:000266569800029.
- 158. Chen BK, Knight AM, de Ruiter GCW, Spinner RJ, Yaszemski MJ, Currier BL, et al. Axon Regeneration through Scaffold into Distal Spinal Cord after Transection. Journal of Neurotrauma. 2009; 26(10):1759-71. doi: 10.1089/neu.2008.0610. PubMed PMID: WOS:000270829200013.
- 159. Den Buijs JO, Lu LC, Jorgensen SM, Dragomir-Daescu D, Yaszemski MJ, Ritman EL. Solute Transport in Cyclically Deformed Porous Tissue Scaffolds with Controlled Pore Cross-Sectional Geometries. Tissue Engineering Part A. 2009;15(8):1989-99. doi: 10.1089/ten.tea.2008.0382. PubMed PMID: WOS:000268703400011.
- 160. Rooney GE, Endo T, Ameenuddin S, Chen BK, Vaishya S, Gross L, et al. Importance of the vasculature in cyst formation after spinal cord injury Laboratory investigation. Journal of Neurosurgery-Spine. 2009; 11(4):432-7. doi: 10.3171/2009.4.spine08784. PubMed PMID: WOS:000270519100009.
- 161. de Ruiter GCW, Spinner RJ, Yaszemski MJ, Windebank AJ, Malessy MJA. Nerve Tubes for Peripheral Nerve Repair. Neurosurgery Clinics of North America. 2009;20(1):91-+. doi: 10.1016/j.nec.2008.08.001. PubMed PMID: WOS:000262177500010.
- 162. Choi JW, Sutor SL, Lindquist L, Evans GL, Madden BJ, Bergen HR, et al. Severe Osteogenesis Imperfecta in Cyclophilin B-Deficient Mice. Plos Genetics. 2009;5(12). doi: 10.1371/journal.pgen.1000750. PubMed PMID: WOS:000273469700002.
- 163. Dadsetan M, Pumberger M, Yaszemski MJ. Incorporation of electrical charge into oligo (polyethylene glycol) fumarate hydrogel for cartilage regeneration. Abstracts

- of Papers of the American Chemical Society. 2009;238. PubMed PMID: WOS:000207861905423.
- 164. Dadsetan M, Runge MB, Yaszemski MJ. Doxorubicin release from microspheres encapsulated within oligo (polyethylene glycol) fumarate hydrogel. Abstracts of Papers of the American Chemical Society. 2009;238. PubMed PMID: WOS:000207861905425.
- 165. Dadsetan M, Szatkowski JP, Shogren KL, Yaszemski MJ, Maran A. Hydrogel-mediated DNA delivery confers estrogenic response in nonresponsive osteoblast cells. Journal of Biomedical Materials Research Part A. 2009; 91A(4):1170-7. doi: 10.1002/jbm.a.32291. PubMed PMID: WOS:000272196900023.
- 166. Dozois EJ, Wall JCH, Spinner RJ, Jacofsky DJ, Yaszemski MJ, Sim FH, et al. Neurogenic Tumors of the Pelvis: Clinicopathologic Features and Surgical Outcomes Using a Multidisciplinary Team. Annals of Surgical Oncology. 2009; 16(4):1010-6. doi: 10.1245/s10434-009-0344-5. PubMed PMID: WOS:000263976000033.
- 167. Halder C, Ossendorf C, Maran A, Yaszemski M, Bolander ME, Fuchs B, et al. Preferential Expression of the Secreted and Membrane Forms of Tumor Endothelial Marker 7 Transcripts in Osteosarcoma. Anticancer Research. 2009; 29(11):4317-22. PubMed PMID: WOS:000273203300001.
- Dadsetan M, Knight AM, Lu LC, Windebank AJ, Yaszemski MJ: Stimulation of neurite outgrowth using positively charged hydrogels. Biomaterials. 2009; 30(23-24):3874-81. doi: 10.1016/j.biomaterials.2009.04.018. PubMed PMID: WOS:000267469300009.
- 169. Kempen DHR, Kruyt MC, Lu LC, Wilson CE, Florschutz AV, Creemers LB, et al. Effect of Autologous Bone Marrow Stromal Cell Seeding and Bone Morphogenetic Protein-2 Delivery on Ectopic Bone Formation in a Microsphere/Poly(Propylene Fumarate) Composite. Tissue Engineering Part A. 2009;15(3):587-94. doi: 10.1089/ten.tea.2007.0376. PubMed PMID: WOS:000263913900014.
- 170. Kempen DHR, Yaszemski MJ, Heijink A, Hefferan TE, Creemers LB, Britson J, et al. Non-invasive monitoring of BMP-2 retention and bone formation in composites for bone tissue engineering using SPECT/CT and scintillation probes. Journal of Controlled Release. 2009; 134(3):169-76. doi: 10.1016/j.jconrel.2008.11.023. PubMed PMID: WOS:000264722000003
- 171. Olson HE, Rooney GE, Gross L, Nesbitt JJ, Galvin KE, Knight A, et al. Neural Stem Cell- and Schwann Cell-Loaded Biodegradable Polymer Scaffolds Support Axonal Regeneration in the Transected Spinal Cord. Tissue Engineering Part A. 2009; 15 (7):1797-805. doi: 10.1089/ten.tea.2008.0364. PubMed PMID: WOS:000267843700034.
- 172. Ruiter GCW, Malessy MJA, Yaszemski MJ, Windebank AJ, Spinner RJ. Designing ideal conduits for peripheral nerve repair. Neurosurgical Focus. 2009; 26(2). doi: 10.3171/foc.2009.26.2.e5. PubMed PMID: WOS:000263024300004.
- 173. Runge MB, Dadsetan M, Baltrusaitis J, Ruesink T, Yaszemski MJ. Biocompatibility of polycaprolactone fumarate-polypyrrole composite materials: Effect of anionic dopant on cell viability. Abstracts of Papers of the American Chemical Society. 2009; 238. PubMed PMID: WOS:000207861905630.
- 174. Runge MB, Dadsetan M, Baltrusaitis J, Ruesink T, Yaszemski MJ. Development of electrically conducting polypyrrole-hydrogel composite materials for application in nerve regeneration. Abstracts of Papers of the American Chemical Society. 2009;238. PubMed PMID: WOS:000207861905610.

- 175. Runge MB, Dadsetan M, Baltrusaitis J, Ruesink T, Yaszemski MJ. Evaluation of electrically conductive and non-conductive porous 3D scaffolds. Abstracts of Papers of the American Chemical Society. 2009; 238. PubMed PMID: WOS:000207861905633.
- 176. Undale AH, Westendorf JJ, Yaszemski MJ, Khosla S: Mesenchymal Stem Cells for Bone Repair and Metabolic Bone Diseases. Mayo Clinic Proceedings. 2009; 84(10):893-902. doi: 10.4065/84.10.893. PubMed PMID: WOS:000270516900006.
- 177. Runge MB, Dadsetan M, Maran A, Yaszemski MJ. Electrically conducting 3-D porous scaffolds for bone regeneration. Abstracts of Papers of the American Chemical Society. 2009; 237. PubMed PMID: WOS:000207857807352.
- 178. Runge MB, Dadsetan M, Yaszemski MJ. Fabrication of conducting composite materials of polypyrrole-polycaprolactone fumarate for nerve regeneration. Abstracts of Papers of the American Chemical Society. 2009; 237. PubMed PMID: WOS:000207857807602.
- 179. Yuan J, Ossendorf C, Szatkowski JP, Bronk JT, Maran A, Yaszemski M, Bolander ME, Sarkar G: Osteoblastic and osteolytic human osteosarcomas can be studied with a new xenograft mouse model producing spontaneous metastases. Cancer Investigation 27(4):435-42, 2009. doi: 10.1080/07357900802491477. PubMed PMID: WOS:000265291400011.
- 180. Madigan NN, McMahon S, O'Brien T, Yaszemski MJ, Windebank AJ: Current tissue engineering and novel therapeutic approaches to axonal regeneration following spinal cord injury using polymer scaffolds. Respiratory Physiology & Neurobiology. 2009; 169(2):183-99. doi: 10.1016/j.resp.2009.08.015. PubMed PMID: WOS:000272225400013.
- 181. Mandal D, Maran A, Yaszemski MJ, Bolander ME, Sarkar G. Cellular uptake of gold nanoparticles directly cross-linked with carrier peptides by osteosarcoma cells. Journal of Materials Science-Materials in Medicine. 2009; 20(1):347-50. doi: 10.1007/s10856-008-3588-x. PubMed PMID: WOS:000262535200040.
- 182. Wang SF, Kempen DHR, Yaszemski MJ, Lu L: The roles of matrix polymer crystallinity and hydroxyapatite nanoparticles in modulating material properties of photo-crosslinked composites and bone marrow stromal cell responses. Biomaterials. 2009; 30(20):3359-70. doi: 10.1016/j.biomaterials.2009.03.015. PubMed PMID: WOS:000266744100001.
- 183. Wang SF, Yaszemski MJ, Knight AM, Gruetzmacher JA, Windebank AJ, Lu L: Photo-crosslinked poly(epsilon-caprolactone fumarate) networks for guided peripheral nerve regeneration: Material properties and preliminary biological evaluations. Acta Biomaterialia 5(5):1531-42, 2009. doi: 10.1016/j.actbio.2008.12.015. PubMed PMID: WOS:000266506800015.
- 184. Wang SF, Yaszemski MJ, Gruetzmacher JA, Lu L: Photo-crosslinked poly(epsilon-caprolactone fumarate) networks: Roles of crystallinity and crosslinking density in determining mechanical properties. Polymer 49(26):5692-9, 2008. doi: 10.1016/j.polymer.2008.10.021. PubMed PMID: WOS:000261734900012.
- 185. Wang SF, Kempen DH, Lu L, Windebank AJ, Yaszemski MJ: PMSE 445-Material design strategies for bone and nerve regenerations: Controlled physical properties and regulated cell responses. Abstracts of Papers of the American Chemical Society. 2008; 235. PubMed PMID: WOS:000271802800085.

- 186. Wang SF, Kempen DH, Simha NX, Lewis JL, Windebank AJ, Yaszemski MJ, Lu L: Photo-cross-linked hybrid polymer networks consisting of poly(propylene fumarate) and poly(caprolactone fumarate): Controlled physical properties and regulated bone and nerve cell responses. Biomacromolecules 9(4):1229-41, 2008. doi: 10.1021/bm 012313. PubMed PMID: WOS:000254983000021.
- 187. Khan Y, Yaszemski MJ, Mikos AG, Laurencin CT. Tissue engineering of bone: Material and matrix considerations. Journal of Bone and Joint Surgery-American Volume. 2008; 90A:36-42. doi: 10.2106/jbjs.g.01260. PubMed PMID: WOS:000252981300008.
- 188. Chen BK, Knight AM, Gross L, Nesbitt JJ, Dadsetan M, Gruetzmacher JA, et al. Comparison of polymer scaffolds in a rat spinal cord transection model. Annals of Neurology. 2008; 64:S20-S1. PubMed PMID: WOS:000258923700079.
- 189. de Ruiter GC, Spinner RJ, Malessy MJA, Moore MJ, Sorenson EJ, Currier BL, et al. Accuracy of motor axon regeneration across autograft, single-lumen, and multichannel poly(lactic-co-glycolic acid) nerve tubes. Neurosurgery. 2008; 63(1):144-53. doi: 10.1227/01.neu.0000319521.28683.75. PubMed PMID: WOS:000258716000033.
- 190. Rooney GE, Vaishya S, Ameenuddin S, Currier BL, Schiefer TK, Knight A, et al. Rigid Fixation of the Spinal Column Improves Scaffold Alignment and Prevents Scoliosis in the Transected Rat Spinal Cord. Spine. 2008; 33(24):E914-E9. doi: 10.1097/BRS.0b013e318186b2b1. PubMed PMID: WOS:000261011400018.
- 191. Kempen DHR, Lu L, Classic KL, Hefferan TE, Creemers LB, Maran A, et al. Non-invasive screening method for simultaneous evaluation of in vivo growth factor release profiles from multiple ectopic bone tissue engineering implants. Journal of Controlled Release. 2008;130(1):15-21. doi: 10.1016/j.jconrel.2008.05.004. PubMed PMID: WOS:000259517700004.
- 192. Kempen DHR, Lu L, Hefferan TE, Creemers LB, Maran A, Classic KL, et al. Retention of in vitro and in vivo BMP-2 bioactivities in sustained delivery vehicles for bone tissue engineering. Biomaterials. 2008;29(22):3245-52. doi: 10.1016/j.biomaterials.2008.04.031. PubMed PMID: WOS:000257012700010.
- 193. Currier BL, Maus TP, Eck JC, Larson DR, Yaszemski MJ. Relationship of the internal carotid artery to the anterior aspect of the C1 vertebra. Spine. 2008;33(6):635-9. doi: 10.1097/BRS.0b013e318166e083. PubMed PMID: WOS:000254651900010.
- 194. Dadsetan M, Hefferan TE, Heine-Geldern A, Benedikt M, Gaustad D, Herrick J, et al. Sequestration, Proliferation and Differentiation of Osteoblasts in Hydrogels for Tissue Engineering Applications. Journal of Bone and Mineral Research. 2008; 23:S162-S. PubMed PMID: WOS:000259411000577.
- 195. Windebank AJ, Chen B, Gross L, De Ruiter G, Knight AM, Podratz JL, Yaszemski MJ et al. A quantitative method to assess numbers off axons regenerating through a tissue-engineered scaffold into distal spinal cord after transection injury in rats. Neurology 70(11):A478-A, 2008. PubMed PMID: WOS:000257197202613.
- 196. Secreto F, Hoeppner LH, Stensgard B, Evans G, Hefferan TE, Yaszemski MJ, et al. Overexpression of Lef1 Delta N Increases Bone Mass in Mice. Journal of Bone and Mineral Research. 2008; 23:S72-S. PubMed PMID: WOS:000259411000259.
- 197. de Boer R, Knight AM, Wang H, Malessy MJA, Spinner RJ, Windebank AJ, et al. Microsphere delivery of nerve growth factor (NGF) and glial cell line derived

- neurotrophic factor (GDNF) in supporting peripheral nerve regeneration in polymer scaffolds. Annals of Neurology. 2008;64:S31-S2. PubMed PMID: WOS:000258923700125.
- 198. Dadsetan M, Hefferan TE, Szatkowski JP, Mishra PK, Macura SI, Lu L, et al. Effect of hydrogel porosity on marrow stromal cell phenotypic expression. Biomaterials. 2008;29(14):2193-202. doi: 10.1016/j.biomaterials.2008.01.006. PubMed PMID: WOS:000255065900005.
- 199. Cyr SJ, Currier BL, Eck JC, Foy A, Chen QS, Larson DR, et al. Fixation strength of unicortical versus bicortical C1-C2 transarticular screws. Spine Journal. 2008;8(4):661-5. doi: 10.1016/j.spinee.2007.02.008. PubMed PMID: WOS:000257909600020.
- 200. de Ruiter GC, Onyeneho IA, Liang ET, Moore MJ, Knight AM, Malessy MJA, et al. Methods for in vitro characterization of multichannel nerve tubes. Journal of Biomedical Materials Research Part A. 2008; 84A(3):643-51. doi: 10.1002/jbm.a.31298. PubMed PMID: WOS:000252990200009.
- 201. Tsuchiya T, Shogren KL, Mahlum E, Maran A, Yaszemski M, Sarkar G. Transcriptional Silencing of Frzb/sFRP3 by Promoter Methylation in Osteogenic Sarcoma. Journal of Bone and Mineral Research. 2008; 23:S298-S. PubMed PMID: WOS:000259411001495.
- 202. Kim CW, Talac R, Lu LC, Moore MJ, Currier BL, Yaszemski MJ. Characterization of porous injectable poly-(propylene fumarate)-based bone graft substitute. Journal of Biomedical Materials Research Part A. 2008; 85A(4):1114-9. doi: 10.1002/jbm.a.31633. PubMed PMID: WOS:000255999000028.
- 203. Rabinowitz RS, Eck JC, Harper CM, Larson DR, Jimenez MA, Parisi JE, et al. Urgent surgical decompression compared to methylprednisolone for the treatment of acute spinal cord injury. Spine. 2008;33(21):2260-8. doi: 10.1097/BRS.0b013e31818786db. PubMed PMID: WOS:000259637800002.
- 204. Kim JK, Lee KW, Hefferan TE, Currier BL, Yaszemski MJ, Lu LC. Synthesis and evaluation of novel biodegradable hydrogels based on poly(ethylene glycol) and sebacic acid as tissue engineering scaffolds. Biomacromolecules. 2008; 9(1):149-57. doi: 10.1021/bm700924n. PubMed PMID: WOS:000252415600022.
- 205. Patra CR, Bhattacharya R, Wang EF, Katarya A, Lau JS, Dutta S, et al. Targeted delivery of gemcitabine to pancreatic adenocarcinoma using cetuximab as a targeting agent. Cancer Research. 2008; 68(6):1970-8. doi: 10.1158/0008-5472.can-07-6102. PubMed PMID: WOS:000254024400043.
- 206. Lee KW, Wang SF, Yaszemski MJ, Lu LC. PMSE 407-Crosslinkable poly(propylene fumarate)/hydroxyapatite nanocomposites: Physical properties and enhanced 2-D cellular responses. Abstracts of Papers of the American Chemical Society. 2008; 235. PubMed PMID: WOS:000271802800035.
- 207. Lee KW, Wang SF, Yaszemski MJ, Lu L: Physical properties and cellular responses to crosslinkable poly(propylene fumarate)/hydroxyapatite nanocomposites. Biomaterials. 2008; 29(19):2839-48. doi: 10.1016/j.biomaterials.2008.03.030. PubMed PMID: WOS:000256144900002.
- 208. Maran A, Benedikt M, Szatkowski JP, Shogren KL, Yaszemski MJ. 2-methoxyestradiol regulates osteoprotegerin expression in osteosarcoma cells. Clinical & Experimental Metastasis. 2008; 25:59-. PubMed PMID: WOS:000258494200106.

- 209. Maran A, Shogren KL, Benedikt M, Sarkar G, Turner RT, Yaszemski MJ. 2-methoxyestradiol-induced cell death in osteosarcoma cells is preceded by cell cycle arrest. Journal of Cellular Biochemistry. 2008; 104(5):1937-45. doi: 10.1002/jcb.21758. PubMed PMID: WOS:000258240600037.
- 210. Maran A, Shogren KL, Benedikt M, Sarkar G, Turner RT, Yaszemski MJ. 2-methoxyestradiol-induced cell death in osteosarcoma cells is preceded by cell cycle arrest (vol 104, pg 1937, 2008). Journal of Cellular Biochemistry. 2008; 105(4):1146-. doi: 10.1002/jcb.21933. PubMed PMID: WOS:000261083300022.
- 211. Shogren KL, Mahlum EW, Yaszemski MJ, Maran A. 2-Methoxyestradiol Alters eIF4E Activity and Causes Protein Synthesis Inhibition in Osteosarcoma Cells. Journal of Bone and Mineral Research. 2008; 23:S300-S1. PubMed PMID: WOS:000259411001504.
- 212. Shogren KL, Turner RT, Yaszemski MJ, Maran A. Double-stranded RNA-dependent protein kinase is involved in 2-methoxyestradiol-mediated cell death of osteosarcoma cells. Journal of Bone and Mineral Research. 2007;22(1):29-36. doi: 10.1359/jbmr.060914. PubMed PMID: WOS:000243056300004.
- 213. Shogren KL, Yaszemski MJ, Hefferan TE, Charlesworth MC, Madden BJ, Turner RT, et al. Regulation of protein synthesis factors in estrogen metabolite-mediated inhibitions of osteosarcoma cells. Journal of Bone and Mineral Research. 2007;22:S293-S. PubMed PMID: WOS:000250509101475.
- 214. Mandal D, Srivastava A, Mahlum E, Desai D, Maran A, Yaszemski M, et al. Severe suppression of Frzb/sFRP3 transcription in osteogenic sarcoma. Gene. 2007; 386(1-2):131-8. doi: 10.1016/j.gene.2006.08.030. PubMed PMID: WOS:000243737000015.
- 215. Lee KW, Wang SF, Fox BC, Ritman EL, Yaszemski MJ, Lu L: Poly(propylene fumarate) bone tissue engineering scaffold fabrication using stereolithography: Effects of resin formulations and laser parameters. Biomacromolecules. 2007; 8(4):1077-84. doi: 10.1021/bm060834v. PubMed PMID: WOS:000245510100005.
- 216. Kim C, Mahar A, Perry A, Massie J, Lu LC, Currier B, et al. Biomechanical evaluation of an injectable radiopaque polypropylene fumarate cement for kyphoplasty in a cadaveric osteoporotic vertebral compression fracture model. Journal of Spinal Disorders & Techniques. 2007; 20(8):604-9. doi: 10.1097/BSD.0b013e318040ad73. PubMed PMID: WOS:000251557400009.
- 217. de Ruiter GC, Spinner RJ, Alaid AO, Koch AJ, Wang H, Malessy MJA, Currier BL, Yaszemski MJ, Kaufman KR, Windebank AJ: Two-dimensional digital video ankle motion analysis for assessment of function in the rat sciatic nerve model. Journal of the Peripheral Nervous System. 2007;12(3):216-22. doi: 10.1111/j.1529-8027.2007.00142.x. PubMed PMID: WOS:000250050500005.
- 218. Currier BL, Papagelopoulos PJ, Krauss WE, Unni KK, Yaszemski MJ. Total en bloc spondylectomy of C5 vertebra for chordoma. Spine. 2007; 32(9):E294-E9. doi: 10.1097/01.brs.0000261411.31563.37. PubMed PMID: WOS:000245975000022.
- 219. Eck JC, Walker MP, Currier BL, Chen Q, Yaszemski MJ, An KN. Biomechanical comparison of unicortical versus bicortical C1 lateral mass screw fixation. Journal of Spinal Disorders & Techniques. 2007; 20(7):505-8. doi: 10.1097/BSD.0b013e318031af8b. PubMed PMID: WOS:000250157800004.

- 220. Dadsetan M, Szatkowski JP, Yaszemski MJ, Lu LC. Characterization of photocross-linked oligo poly(ethylene glycol) fumarate hydrogels for cartilage tissue engineering. Biomacromolecules. 2007; 8(5):1702-9. doi: 10.1021/bm070052h. PubMed PMID: WOS:000246413600042.
- 221. Benedikt M, Szatkowski JP, Shogren KL, Sarkar G, Yaszemski MJ, Maran A. Anti-tumor actions of 2-Methoxyestradiol is accompanied by an increase in osteoprotegrin expression in osteosarcoma cells. Journal of Bone and Mineral Research. 2007; 22:S190-S. PubMed PMID: WOS:000250509101072.
- de Boer R, Knight AM, Malessy MJA, Spinner RJ, Yaszemski MJ, Windebank AJ. Effect of polymer composition on release kinetics of nerve growth factor from polylactic-co-glycolic acid microspheres. Journal of the Peripheral Nervous System. 2007; 12:23-4. PubMed PMID: WOS:000249243600065.
- 223. Knight AM, Dadsetan M, Wang S, Nesbitt JJ, Yaszemski MJ, Windebank AJ. Development and selection of biomaterials for artificial nerve tubes. Journal of the Peripheral Nervous System. 2007;12:45-. PubMed PMID: WOS:000249243600124.
- 224. Bhattacharya R, Patra CR, Earl A, Wang SF, Katarya A, Lu L, et al. Attaching folic acid on gold nanoparticles using noncovalent interaction via different polyethylene glycol backbones and targeting of cancer cells. Nanomedicine-Nanotechnology Biology and Medicine. 2007; 3(3):224-38. doi: 10.1016/j.nano.2007.07.001. PubMed PMID: WOS:000249325500007.
- 225. Obremskey WT, Marotta JS, Yaszemski MJ, Churchill LR, Boden SD, Dirschl DR. The introduction of Biologics in orthopaedics: Issues of cost, commercialism, and ethics. Journal of Bone and Joint Surgery-American Volume. 2007; 89A(7):1641-9. doi: 10.2106/jbjs.f.01185. PubMed PMID: WOS:000247887300030.
- 226. Christensen DM, Eastlack RK, Lynch JJ, Yaszemski MJ, Currier BL. C1 anatomy and dimensions relative to lateral mass screw placement. Spine. 2007;32 (8):844-8. doi: 10.1097/01.brs.0000259833.02179.c0. PubMed PMID: WOS:000245740500002.
- 227. Yaszemski MJ, Polly DW, Boden SD, Andersson GBJ: Technology assessment: Approach and reimbursement. Spine 32(11):S39-S43, 2007. doi: 10.1097/BRS.0b013e318054d0a0. PubMed PMID: WOS:000246551200008.
- 228. Fuchs B, Mahlum E, Halder C, Maran A, Yaszemski M, Bode B, et al. High expression of tumor endothelial marker 7 is associated with metastasis and poor survival of patients with osteogenic sarcoma. Gene. 2007; 399(2):137-43. doi: 10.1016/j.gene.2007.05.003. PubMed PMID: WOS:000249237600006.
- 229. Liao E, Yaszemski M, Krebsbach P, Hollister S. Tissue-engineered cartilage constructs using composite hyaluronic acid/collagen I hydrogels and designed poly(propylene fumarate) scaffolds. Tissue Engineering. 2007;13 (3):537-50. doi: 10.1089/ten.2006.0117. PubMed PMID: WOS:000245464500010.
- 230. Lee KW, Wang SF, Lu LC, Jabbari E, Currier BL, Yaszemski MJ. Fabrication and characterization of poly(propylene fumarate) scaffolds with controlled pore structures using 3-dimensional printing and injection molding. Tissue Engineering. 2006; 12(10):2801-11. doi: 10.1089/ten.2006.12.2801. PubMed PMID: WOS:000242045600010.

- 231. Liao EE, Yaszemski MJ, Krebsbach PH, Hollister SJ. The effect of composite hyaluronic acid/collagen I gel on chondrocytes in PPF scaffolds in vivo. Tissue Engineering. 2006; 12(4):1076-. PubMed PMID: WOS:000237494400302.
- 232. Chen BK, Miller SM, Mantilla CB, Gross L, Yaszemski MJ, Windebank A. Optimizing conditions and avoiding pitfalls for prolonged axonal tracing with carbocyanine dyes in fixed rat spinal cords. Journal of Neuroscience Methods. 2006; 154(1-2):256-63. doi: 10.1016/j.jneumeth.2005.12.025. PubMed PMID: WOS:000238733500028.
- 233. Kim CW, Perry A, Currier B, Yaszemski M, Garfin SR. Fungal infections of the spine. Clinical Orthopaedics and Related Research. 2006(444):92-9. doi: 10.1097/01.blo.0000203451.36522.4c. PubMed PMID: WOS:000243020200014.
- 234. Kempen DHR, Lu LC, Kim C, Zhu X, Dhert WJA, Currier BL, et al. Controlled drug release from a novel injectable biodegradable micro sphere/scaffold composite based on poly(propylene fumarate). Journal of Biomedical Materials Research Part A. 2006;77A(1):103-11. doi: 10.1002/jbm.a.30336. PubMed PMID: WOS:000235945000014.
- 235. Taylor WE, Wolff BG, Pemberton JH, Yaszemski MJ. Sacral osteomyelitis after ileal pouch-anal anastomosis: Report of four cases. Diseases of the Colon & Rectum. 2006; 49(6):913-8. doi: 10.1007/s10350-006-0524-3. PubMed PMID: WOS:000238023100017.
- 236. Hugate RR, Dickey ID, Phimolsarnti R, Yaszemski MJ, Sim FH. Mechanical effects of partial sacrectomy When is reconstruction necessary? Clinical Orthopaedics and Related Research. 2006(450):82-8. doi: 10.1097/01.blo.0000229331.14029.44. PubMed PMID: WOS:000243021100018.
- 237. Bhattacharya R, Patra CR, Wang SF, Lu L, Yaszemski MJ, Mukhopadhyay D, et al. Assembly of gold nanoparticles in a rod-like fashion using proteins as templates. Advanced Functional Materials. 2006; 16(3):395-400. doi: 10.1002/adfm.200500347. PubMed PMID: WOS:000235456000010.
- 238. Heijink A, Yaszemski MJ, Patel R, Rouse MS, Lewallen DG, Hanssen AD. Local antibiotic delivery with OsteoSet (R), DBX (R), and Collagraft (R). Clinical Orthopaedics and Related Research. 2006(451):29-33. doi: 10.1097/01.blo.0000229319.45416.81. PubMed PMID: WOS:000243021200009.
- 239. Wass CT, Long TR, Faust RJ, Yaszemski MJ, Joyner MJ: Changes in red blood cell transfusion practice during the past two decades: a retrospective analysis, with the Mayo database, of adult patients undergoing major spine surgery. Transfusion 47(6):1022-7, 2007. doi: 10.1111/j.1537-2995.2007.01231.x. PubMed PMID: WOS:000246714500012.
- 240. Wijdicks CA, Hefferan TE, Lu L, Gruetzmacher JA, Maran A, Yaszemski MJ: Rat marrow stromal cell attachment on poly(propylene fumarate) and poly(epsilon-caprolactone)-fumarate 2-D scaffolds with varying hydroxyapatite incorporation. Journal of Bone and Mineral Research 21:S157-S, 2006. PubMed PMID: WOS:000240866301163.
- 241. Maran A, Gorny G, Oursler MJ, Zhang M, Shogren KL, Yaszemski MJ, Turner RT: 2-methoxyestradiol inhibits differentiation and is cytotoxic to osteoclasts. Journal of Cellular Biochemistry 99(2):425-34, 2006. doi: 10.1002/jcb.20924. PubMed PMID: WOS:000240758600010.

- 242. Wang SF, Lu L, Gruetzmacher JA, Currier BL, Yaszemski MJ: Synthesis and characterizations of biodegradable and crosslinkable poly(epsilon-caprolactone fumarate), poly(ethylene glycol fumarate), and their amphiphilic copolymer. Biomaterials 27(6):832-41, 2006. doi: 10.1016/j.biomaterials.2005.07.013. PubMed PMID: WOS:000234095800003.
- 243. Wang SF, Lu L, Gruetzmacher JA, Currier BL, Yaszemski MJ: Triblock copolymer polycaprolactone-polypropylene fumarate-polycaprolactone. Abstracts of Papers of the American Chemical Society 231, 2006. PubMed PMID: WOS:000238125909562.
- 244. Wang SF, Lu L, Yaszemski MJ: Bone-tissue-engineering material poly(propylene fumarate): Correlation between molecular weight, chain dimensions, and physical properties. Biomacromolecules 7(6):1976-82, 2006. doi: 10.1021/bm060096a. PubMed PMID: WOS:000238180600039.
- 245. Wang SF, Lu L, Yaszemski MJ: Polypropylene fumarate: One example to study the finite length effect on glass transition temperature and polymer dynamics. Abstracts of Papers of the American Chemical Society 231, 2006. PubMed PMID: WOS:000238125909610.
- 246. Moore MJ, Friedman JA, Lewellyn EB, Mantila SM, Krych AJ, Ameenuddin S, et al. Multiple-channel scaffolds to promote spinal cord axon regeneration. Biomaterials. 2006; 27(3):419-29. doi: 10.1016/j.biomaterials.2005.07.045. PubMed PMID: WOS:000233187300015.
- 247. Maran A, Yaszemski MJ, Shogren KL, Turner RT. Estrogen metabolites in the control of osteosarcoma. Bone. 2006; 39(5):S12-S. PubMed PMID: WOS:000241584500056.
- 248. Maran A, Shogren K, Zhang M, Yaszemski MJ, Hefferan TE, Spelsberg TC, et al. Effects of stable transfection of human fetal osteoblast cells with estrogen receptoralpha on regulation of gene expression by tibolone. Bone. 2006;39(3):523-9. doi: 10.1016/j.bone.2006.03.006. PubMed PMID: WOS:000240113900012.
- 249. Maran A, Shogren KL, Zhang M, Yaszemski MJ, Turner RT. Evidence that interferon signaling is required for 2-ME-mediated osteosarcoma cell death. Journal of Bone and Mineral Research. 2005;20(9):S211-S. PubMed PMID: WOS:000233503802269.
- 250. Mardones RM, Reinholz GG, Fitzsimmons JS, Zobitz ME, An KN, Lewallen DG, et al. Development of a biologic prosthetic composite for cartilage repair. Tissue Engineering. 2005; 11(9-10):1368-78. doi: 10.1089/ten.2005.11.1368. PubMed PMID: WOS:000233347300008.
- 251. Dickey ID, Hugate RR, Fuchs B, Yaszemski MJ, Sim FH. Reconstruction after total sacrectomy early experience with a new surgical technique Early experience with a new surgical technique. Clinical Orthopaedics and Related Research. 2005(438):42-50. doi: 10.1097/01.blo.0000180054.76969.41. PubMed PMID: WOS:000231721800010.
- 252. Fuchs B, Dickey ID, Yaszemski MJ, Inwards CY, Sim FH. Operative management of sacral chordoma. Journal of Bone and Joint Surgery-American Volume. 2005;87A(10):2211-6. doi: 10.2106/jbjs.d.02693. PubMed PMID: WOS:000232421500009.
- 253. Rajagopalan S, Lu LC, Yaszemski MJ, Robb RA. Optimal segmentation of microcomputed tomographic images of porous tissue-engineering scaffolds. Journal of

- Biomedical Materials Research Part A. 2005; 75A(4):877-87. doi: 10.1002/jbm.a.30498. PubMed PMID: WOS:000233690500013.
- 254. Lu L, Zhu X, Pederson LG, Jabbari E, Currier BL, O'Driscoll S, Yaszemski, MJ: Effects of dynamic fluid pressure on chondrocytes cultured in biodegradable poly(glycolic acid) fibrous scaffolds. Tissue Engineering 11(11-12):1852-9, 2005. doi: 10.1089/ten.2005.11.1852. PubMed PMID: WOS:000234829500024.
- 255. Wang SF, Lu LC, Gruetzmacher JA, Currier BL, Yaszemski MJ: A biodegradable and cross-linkable multiblock copolymer consisting of poly(propylene fumarate) and poly(epsilon-caprolactone): Synthesis, characterization, and physical properties. Macromolecules 38(17):7358-70, 2005. doi: 10.1021/ma050884c. PubMed PMID: WOS:000231274100024.
- de Ruiter GCW, Moore MJ, Wang S, Malessy M, Spinner RJ, Sorenson EJ, et al. On the use of biodegradable multi-channel conduits for peripheral nerve repair. Journal of the Peripheral Nervous System 10: 20, 2005. PubMed PMID: WOS:000230320000053.
- 257. Jabbari E, Wang SF, Lu LC, Gruetzmacher JA, Ameenuddin S, Hefferan TE, et al. Synthesis, material properties, and biocompatibility of a novel self-cross-linkable poly(caprolactone fumarate) as an injectable tissue engineering scaffold. Biomacromolecules 6(5): 2503-11, 2005. doi: 10.1021/bm050206y. PubMed PMID: WOS:000231899200017.
- 258. de Ruiter GC, Knight AM, Moore MJ, Liang E, Gorgyi S, Lu LC, et al. Biodegradable polymer scaffolds for spinal cord regeneration: I, Optimizing characteristics for blocompatibility. Neurology. 2005;64(6):A357-A. PubMed PMID: WOS:000227841502235.
- 259. Windebank AJ, Vaishya S, Schiefer TK, Currier BL, Olson HE, Chen BK, Yaszemski MJ, et al. Biodegradable polymer scaffolds for spinal cord regeneration: II. Optimizing scaffold stability to promote regeneration. Neurology 64(6):A353-A, 2005. PubMed PMID: WOS:000227841502222.
- 260. Hefferan TE, Jabbari E, Florschutz A, Mardones RM, Lu L, Currier BL, et al. rhBMP-2 enhances bone formation in a biodegradable scaffold. Journal of Bone and Mineral Research. 2005;20(9):S108-S. PubMed PMID: WOS:000233503801144.
- 261. Gordon WJ, Conzemius MG, Birdsall E, Wannemuehler Y, Mallapragada S, Lewallen DG, et al. Chondroconductive potential of tantalum trabecular metal. Journal of Biomedical Materials Research Part B-Applied Biomaterials. 2005; 75B(2):229-33. doi: 10.1002/jbm.b.30242. PubMed PMID: WOS:000233059600001.
- 262. Knight AM, Georgi S, Issa A, De Ruiter M, Yaszemski MJ, Windebank AJ. Peptide attachment to biodegradable polymers for axonal guidance in spinal cord injury. Journal of Neurochemistry. 2005; 94:45-. PubMed PMID: WOS:000230317200127.
- 263. Shin H, Temenoff JS, Bowden GC, Zygourakis K, Farach-Carson MC, Yaszemski MJ, et al. Osteogenic differentiation of rat bone marrow stromal cells cultured on Arg-Gly-Asp modified hydrogels without dexamethasone and beta-glycerol phosphate. Biomaterials. 2005; 26(17):3645-54. doi: 10.1016/j.biomaterials.2004.09.050. PubMed PMID: WOS:000226968200030.
- 264. Shin H, Zygourakis K, Farach-Carson MC, Yaszemski MJ, Mikos AG. Attachment, proliferation, and migration of marrow stromal osteoblasts cultured on biomimetic hydrogels modified with an osteopontin-derived peptide. Biomaterials. 2004;

- 25(5):895-906. doi: 10.1016/s0142-9612(03)00602-1. PubMed PMID: WOS:000186853400015.
- 265. Windebank AJ, Ameenuddin S, Knight AM, Moore MJ, Jabbari E, Yaszemski MJ: Cell-seeded biodegradable polymer implants in the quantitative assessment of regeneration after spinal cord injury in rats. Neurology 62(7): A540-A, 2004. PubMed PMID: WOS:000220761901349.
- 266. Shin H, Zygourakis K, Farach-Carson MC, Yaszemski MJ, Mikos AG. Modulation of differentiation and mineralization of marrow stromal cells cultured on biomimetic hydrogels modified with Arg-Gly-Asp containing peptides. Journal of Biomedical Materials Research Part A. 2004; 69A(3):535-43. doi: 10.1002/jbm.a.30027. PubMed PMID: WOS:000221418400018.
- 267. Moore MJ, Jabbari E, Ritman EL, Lu LC, Currier BL, Windebank AJ, et al. Quantitative analysis of interconnectivity of porous biodegradable scaffolds with microcomputed tomography. Journal of Biomedical Materials Research Part A. 2004; 71A(2):258-67. doi: 10.1002/jbm.a.30138. PubMed PMID: WOS:000224419000009.
- 268. Reinholz GG, Lu L, Saris DBF, Yaszemski MJ, O'Driscoll SW. Animal models for cartilage reconstruction. Biomaterials. 2004; 25(9):1511-21. doi: 10.1016/s0142-9612(03)00498-8. PubMed PMID: WOS:000187916100007.
- 269. Kooi DV, Abad G, Basford JR, Maus TP, Yaszemski MJ, Kaufman KR. Lumbar spine stabilization with a thoracolumbosacral orthosis Evaluation with video fluoroscopy. Spine. 2004; 29(1):100-4. PubMed PMID: WOS:000220039400018.
- 270. Kempen DHR, Lu LC, Zhu X, Kim C, Jabbari E, Dhert WJA, et al. Development of biodegradable poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres. I. Preparation and characterization. Journal of Biomedical Materials Research Part A. 2004;70A(2):283-92. doi: 10.1002/jbm.a.30079. PubMed PMID: WOS:000222673200014.
- 271. Taylor WE, Wolff BG, Pemberton JH, Yaszemski MJ. Sacral osteomyelitis following ileal pouch-anal anastomosis. Diseases of the Colon & Rectum. 2004; 47(4):631-. PubMed PMID: WOS:000220574500174.
- 272. Talac R, Friedman JA, Moore MJ, Lu L, Jabbari E, Windebank AJ, et al. Animal models of spinal cord injury for evaluation of tissue engineering treatment strategies. Biomaterials. 2004; 25(9):1505-10. doi: 10.1016/s0142-9212(03)00497-6. PubMed PMID: WOS:000187916100006.
- 273. Kempen DHR, Lu LC, Zhu X, Kim C, Jabbari E, Dhert WJA, et al. Development of biodegradable poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres. II. Controlled drug release and microsphere degradation. Journal of Biomedical Materials Research Part A. 2004;70A(2):293-302. doi: 10.1002/jbm.a.30080. PubMed PMID: WOS:000222673200015.
- 274. Walker MP, Yaszemski MJ, Kim CP, Talac R, Currier BL. Metastatic disease of the spine: Evaluation and treatment. Clinical Orthopaedics and Related Research. 2003(415):S165-S75. doi: 10.1097/01.blo.0000092977.12414.f9. PubMed PMID: WOS:000186364400022.
- 275. Kempen DHR, Kim CW, Lu L, Dhert WJA, Currier BL, Yaszemski MJ: Controlled release from poly(lactic-co-glycolic acid) microspheres embedded in an injectable, biodegradable scaffold for bone tissue engineering. In: Chandra T, Torralba

- JM, Sakai T, editors. Thermec'2003, Pts 1-5. Materials Science Forum. 426 (4), 3151-6, 2003.
- 276. Currier BL, Todd LT, Maus TP, Fisher DR, Yaszemski MJ. Anatomic relationship of the internal carotid artery to the C1 vertebra: A case report of cervical reconstruction for chordoma and pilot study to assess the risk of screw fixation of the atlas. Spine. 2003;28(22):E461-E7. doi: 10.1097/01.brs.0000092385.19307.9e. PubMed PMID: WOS:000186642800013.
- 277. Poshusta AK, Burdick JA, Mortisen DJ, Padera RF, Ruehlman D, Yaszemski MJ, et al. Histocompatibility of photocrosslinked polyanhydrides: A novel in situ forming orthopaedic biomaterial. Journal of Biomedical Materials Research Part A. 2003;64A(1):62-9. doi: 10.1002/jbm.a.10274. PubMed PMID: WOS:000182423000007.
- 278. Friedman JA, Lewellyn EB, Moore MJ, Schermerhorn TC, Knight AM, Currier BL, et al. Robust axon regeneration after surgical repair of the injured spinal cord with a novel biodegradable polymer implant. Neurosurgery. 2003; 53(2):480-1. PubMed PMID: WOS:000184513200099.
- 279. Todd LT, Yaszemski MJ, Currier BL, Fuchs B, Kim CW, Sim FH. Bowel and bladder function after major sacral resection. Clinical Orthopaedics and Related Research. 2002(397):36-9. PubMed PMID: WOS:000175216900006.
- 280. Friedman JA, Windebank AJ, Moore MJ, Spinner RJ, Currier BL, Yaszemski MJ. Biodegradable polymer grafts for surgical repair of the injured spinal cord. Neurosurgery. 2002; 51(3):742-51. doi: 10.1097/00006123-200209000-00024. PubMed PMID: WOS:000177925700036.
- 281. Zhu X, Li L, Currier BL, Windebank AJ, Yaszemski M: Controlled release of NF kappa B decoy oligonucleotides from biodegradable polymer microparticles. Biomaterials 23(13):2683-92, 2002. doi: 10.1016/s0142-9612(01)00409-4. PubMed PMID: WOS:000175718600007.
- 282. Talac R, Yaszemski MJ, Currier BL, Fuchs B, Dekutoski MB, Kim CW, et al. Relationship between surgical margins and local recurrence in sarcomas of the spine. Clinical Orthopaedics and Related Research. 2002(397):127-32. PubMed PMID: WOS:000175216900018.
- 283. Payne RG, Yaszemski MJ, Yasko AW, Mikos AG. Development of an injectable, in situ crosslinkable, degradable polymeric carrier for osteogenic cell populations. Part 1. Encapsulation of marrow stromal osteoblasts in surface crosslinked gelatin microparticles. Biomaterials. 2002; 23(22):4359-71. doi: 10.1016/s0142-9612(02)00184-9. PubMed PMID: WOS:000177667400008.
- 284. Payne RG, McGonigle JS, Yaszemski MJ, Yasko AW, Mikos AG. Development of an injectable, in situ crosslinkable, degradable polymeric carrier for osteogenic cell populations. Part 2. Viability of encapsulated marrow stromal osteoblasts cultured on crosslinking poly(propylene fumarate). Biomaterials. 2002; 23(22):4373-80. doi: 10.1016/s0142-9612(02)00185-0. PubMed PMID: WOS:000177667400009.
- 285. Payne RG, McGonigle JS, Yaszemski MJ, Yasko AW, Mikos AG. Development of an injectable, in situ crosslinkable, degradable polymeric carrier for osteogenic cell populations. Part 3. Proliferation and differentiation of encapsulated marrow stromal osteoblasts cultured on crosslinking poly(propylene fumarate). Biomaterials. 2002; 23(22):4381-7. doi: 10.1016/s0142-9612(02)00186-2. PubMed PMID: WOS:000177667400010.

- 286. Fuchs B, Yaszemski MJ, Sim FH. Combined posterior pelvis and lumbar spine resection for sarcoma. Clinical Orthopaedics and Related Research. 2002(397):12-8. PubMed PMID: WOS:000175216900003.
- 287. Gill JS, Zhu X, Moore MJ, Lu LC, Yaszemski MJ, Windebank AJ. Effects of NF kappa B decoy oligonucleotides released from biodegradable polymer microparticles on a glioblastoma cell line. Biomaterials. 2002;23(13):2773-81. doi: 10.1016/s0142-9612(02)00013-3. PubMed PMID: WOS:000175718600018.
- 288. Friedman JA, Windebank AJ, Yaszemski MJ, Moore MJ, Lewellyn EB. A Schwann cell-seeded, biodegradable polymer implant for promoting axon regeneration after spinal cord injury. Annals of Neurology. 2002;52(3):S87-S. PubMed PMID: WOS:000177900500277.
- 289. Carmack DB, Kaylor KL, Yaszemski MJ: Structural stiffness and reducibility of external fixators placed in malalignment and malrotation. Journal of Orthopaedic Trauma. 2001;15(4):247-53. doi: 10.1097/00005131-200105000-00003. PubMed PMID: WOS:000168812100003.
- 290. He S, Timmer MD, Yaszemski MJ, Yasko AW, Engel PS, Mikos AG. Synthesis of biodegradable poly(propylene fumarate) networks with poly(propylene fumarate)-diacrylate macromers as crosslinking agents and characterization of their degradation products. Polymer. 2001;42(3):1251-60. doi: 10.1016/s0032-3861(00)00479-1. PubMed PMID: WOS:000089962500042.
- 291. Lu L, Yaszemski MJ, Mikos AG: Retinal pigment epithelium engineering using synthetic biodegradable polymers. Biomaterials. 2001; 22(24):3345-55. doi: 10.1016/s0142-9612(01)00172-7. PubMed PMID: WOS:000171759500016.
- 292. Velan GJ, Currier BL, Clarke BL, Yaszemski MJ: Ossification of the posterior longitudinal ligament in vitamin D-resistant rickets Case report and review of the literature. Spine. 2001; 26(5):590-3. doi: 10.1097/00007632-200103010-00029. PubMed PMID: WOS:000167613300023.
- 293. Lu L, Yaszemski MJ, Mikos AG: TGF-beta 1 release from biodegradable polymer microparticles: Its effects on marrow stromal osteoblast function. Journal of Bone and Joint Surgery-American Volume. 2001; 83A:S82-S91. PubMed PMID: WOS:000168169500002.
- 294. Lu L, Zhu X, Valenzuela RG, Currier BL, Yaszemski MJ. Biodegradable polymer scaffolds for cartilage tissue engineering. Clinical Orthopaedics and Related Research. 2001(391):S251-S70. PubMed PMID: WOS:000171624500024.
- 295. He SL, Yaszemski MJ, Yasko AW, Engel PS, Mikos AG. Injectable biodegradable polymer composites based on poly(propylene fumarate) crosslinked with poly(ethylene glycol)-dimethacrylate. Biomaterials. 2000; 21(23):2389-94. doi: 10.1016/s0142-9612(00)00106-x. PubMed PMID: WOS:000089679000007.
- 296. Peter SJ, Lu L, Kim DJ, Stamatas GN, Miller MJ, Yaszemski MJ, et al. Effects of transforming growth factor beta 1 released from biodegradable polymer microparticles on marrow stromal osteoblasts cultured on poly(propylene fumarate) substrates. Journal of Biomedical Materials Research. 2000;50(3):452-62. doi: 10.1002/(sici)1097-4636(20000605)50:3<452::aid-jbm20>3.3.co;2-s. PubMed PMID: WOS:000086150800020.
- 297. Oldham JB, Lu L, Zhu X, Porter BD, Hefferan TE, Larson DR, et al. Biological activity of rhBMP-2 released from PLGA microspheres. Journal of Biomechanical

- Engineering-Transactions of the ASME. 2000; 122(3):289-92. doi: 10.1115/1.429662. PubMed PMID: WOS:000167111000014.
- 298. Porter BD, Oldham JB, He SL, Zobitz ME, Payne RG, An KN, et al. Mechanical properties of a biodegradable bone regeneration scaffold. Journal of Biomechanical Engineering-Transactions of the ASME. 2000; 122(3):286-8. doi: 10.1115/1.429659. PubMed PMID: WOS:000167111000013.
- 299. France JC, Yaszemski MJ, Lauerman WC, Cain JE, Glover JM, Lawson KJ, et al. A randomized prospective study of posterolateral lumbar fusion Outcomes with and without pedicle screw instrumentation. Spine. 1999; 24(6):553-60. doi: 10.1097/00007632-199903150-00010. PubMed PMID: WOS:000079187200009.
- 300. Peter SJ, Kim P, Yasko AW, Yaszemski MJ, Mikos AG. Crosslinking characteristics of an injectable poly(propylene fumarate)/beta-tricalcium phosphate paste and mechanical properties of the crosslinked composite for use as a biodegradable bone cement. Journal of Biomedical Materials Research. 1999; 44(3):314-21. PubMed PMID: WOS:000077890500010.
- 301. Peter SJ, Suggs LJ, Yaszemski MJ, Engel PS, Mikos AG. Synthesis of poly(propylene fumarate) by acylation of propylene glycol in the presence of a proton scavenger. Journal of Biomaterials Science-Polymer Edition. 1999;10(3):363-73. doi: 10.1163/156856299x00423. PubMed PMID: WOS:000079365100010.
- 302. Yaszemski MJ, Oldham JB, Porter BD, Hefferan TE, Currier BL, Mikos AG: Biologic activity of rhBMP-2 following release from PLGA microspheres. Abstracts of Papers of the American Chemical Society 217:U560-U, 1999. PubMed PMID: WOS:000079148201735.
- 303. Suggs LJ, Yaszemski MJ, Mikos AG. Development of poly(propylene fumarate-co-ethylene glycol): An injectable, biodegradable cardiovascular implant. Abstracts of Papers of the American Chemical Society. 1999; 217:U561-U. PubMed PMID: WOS:000079148201739.
- 304. Peter SJ, Miller MJ, Yasko AW, Yaszemski MJ, Mikos AG. Polymer concepts in tissue engineering. Journal of Biomedical Materials Research-Part A: 1998; 43(4):422-7. doi: 10.1002/(sici)1097-4636(199824)43:4<422::aid-jbm9>3.0.co;2-1. PubMed PMID: WOS:000077259500009.
- 305. Ishaug-Riley SL, Crane-Kruger GM, Yaszemski MJ, Mikos AG. Three-dimensional culture of rat calvarial osteoblasts in porous biodegradable polymers. Biomaterials. 1998; 19 (15):1405-12. doi: 10.1016/s0142-9612(98)00021-0. PubMed PMID: WOS:000075691700010.
- 306. IshaugRiley SL, Crane GM, Gurlek A, Miller MJ, Yasko AW, Yaszemski MJ, et al. Ectopic bone formation by marrow stromal osteoblast transplantation using poly(DL-lactic-co-glycolic acid) foams implanted into the rat mesentery. Journal of Biomedical Materials Research-Part A. 1997; 36(1):1-8. doi: 10.1002/(sici)1097-4636(199707)36:1<1::aid-jbm1>3.0.co;2-p. PubMed PMID: WOS:A1997XG35400001.
- 307. Peter SJ, Nolley JA, Widmer MS, Merwin JE, Yaszemski MJ, Yasko AW, et al. In vitro degradation of a poly(propylene fumarate)/beta-tricalcium phosphate composite orthopaedic scaffold. Tissue Engineering. 1997; 3(2):207-15. doi: 10.1089/ten.1997.3.207. PubMed PMID: WOS:A1997XZ36700008.
- 308. Peter SJ, Yaszemski MJ, Suggs LJ, Payne RG, Langer R, Hayes WC, et al. Characterization of partially saturated poly(propylene fumarate) for orthopaedic

- application. Journal of Biomaterials Science-Polymer Edition. 1997;8(11):893-904. doi: 10.1163/156856297x00074. PubMed PMID: WOS:A1997XZ52100007.
- 309. Ishaug SL, Crane GM, Miller MJ, Yasko AW, Yaszemski MJ, Mikos AG. Bone formation by three-dimensional stromal osteoblast culture in biodegradable polymer scaffolds. Journal of Biomedical Materials Research. 1997; 36(1):17-28. PubMed PMID: WOS:A1997XG35400003.
- 310. Suggs LJ, Payne RG, Yaszemski MJ, Alemany LB, Mikos AG. Synthesis and characterization of a block copolymer consisting of poly(propylene fumarate) and poly(ethylene glycol). Macromolecules. 1997; 30(15):4318-23. doi: 10.1021/ma970312v. PubMed PMID: WOS:A1997XP20200011.
- 311. Ruder CR, Dixon P, Mikos AG, Yaszemski MJ. The growth and phenotypic expression of human osteoblasts. Cytotechnology. 1996; 22(1-3):263-7. doi: 10.1007/bf00353947. PubMed PMID: WOS:A1996WG51200030.
- 312. Ishaug SL, Payne RG, Yaszemski MJ, Aufdemorte TB, Bizios R, Mikos AG. Osteoblast migration on poly(alpha-hydroxy esters). Biotechnology and Bioengineering. 1996; 50(4):443-51. doi: 10.1002/(sici)1097-0290(19960520)50:4<443::aid-bit12>3.0.co;2-k. PubMed PMID: WOS:A1996UG32600013.
- 313. Yaszemski MJ, Payne RG, Hayes WC, Langer R, Mikos AG. Evolution of bone transplantation: Molecular, cellular and tissue strategies to engineer human bone. Biomaterials. 1996; 17(2):175-85. doi: 10.1016/0142-9612(96)85762-0. PubMed PMID: WOS:A1996TY45800011.
- 314. Ingari JV, Smith DK, Aufdemorte TB, Yaszemski MJ. Anatomic significance of magnetic resonance imaging findings in hip fracture. Clinical Orthopaedics and Related Research. 1996(332):209-14. PubMed PMID: WOS:A1996VR30400028.
- 315. Olszewski AD, Yaszemski MJ, White AA. The anatomy of the human lumbar ligamentum flavum New observations and their surgical importance. Spine. 1996; 21(20):2307-12. doi: 10.1097/00007632-199610150-00001. PubMed PMID: WOS:A1996VN87300001.
- 316. Yaszemski MJ, Payne RG, Hayes WC, Langer R, Mikos AG: In vitro degradation of a poly(propylene fumarate) based composite material. Biomaterials 17(22): 2127-30, 1996. doi: 10.1016/0142-9612(96)00008-7. PubMed PMID: WOS:A1996VQ13500002.
- 317. Thomson RC, Yaszemski MJ, Powers JM, Mikos AG. Fabrication of biodegradable polymer scaffolds to engineer trabecular bone. Journal of Biomaterials Science-Polymer Edition. 1995; 7(1):23-38. PubMed PMID: WOS:A1995QW40500002.
- 318. Sutherland JP, Yaszemski MJ, White AA: Radiographic appearance of the odontoid-lateral mass interspace in the occipitoatlantoaxial complex. Spine. 1995; 20(20):2221-5. doi: 10.1097/00007632-199510001-00008. PubMed PMID: WOS:A1995TA67100008.
- 319. Thomson RC, Wake MC, Yaszemski MJ, Mikos AG. Biodegradable polymer scaffolds to regenerate organs. Biopolymers Ii. 1995; 122:245-74. PubMed PMID: WOS:A1995BE58P00006.
- 320. Yaszemski MJ, White AA: The discectomy membrane (nerve root fibrovascular membrane): its anatomic description and its surgical importance. Journal of Spinal Disorders 7(3):230-5, 1994. doi: 10.1097/00002517-199407030-00006. PubMed PMID: WOS:A1994NN29300006.

- 321. Ishaug SL, Yaszemski MJ, Bizios R, Mikos AG.: Osteoblast function on synthetic biodegradable polymers. Journal of Biomedical Materials Research. 1994;28(12):1445-53. doi: 10.1002/jbm.820281210. PubMed PMID: WOS:A1994PU33100009.
- 322. Grinkemeyer MD, Labarre RC, Yaszemski MJ, Klucznik RP, Blatt SP, Drehner DM: A case of Pott's disease in a 20 year old military dependent. Military Medicine 159(3):257-60, 1994. PubMed PMID: WOS:A1994NJ93800030.
- 323. Ethier DB, Cain JE, Yaszemski MJ, Glover JM, Klucznik RP, Pyka RE, et al. The influence of annulotomy selection on disc competence a radiographic, biomechanical, and histologic analysis. Spine. 1994;19(18):2071-6. doi: 10.1097/00007632-199409150-00012. PubMed PMID: WOS:A1994PJ61600012.
- 324. Yaszemski MJ, Shepler TR: Sudden death from cord compression associated with atlantoaxial instability in rheumatoid arthritis. Spine 15(4): 338-41, 1990. doi: 10.1097/00007632-199004000-00017. PubMed PMID: WOS:A1990DF52400017.
- 325. Kay SP, Yaszemski MJ, Rockwood CA. Acute tear of the rotator cuff masked by simultaneous palsy of the brachial plexus-a case report. Journal of Bone and Joint Surgery-American Volume. 1988;70A(4):611-2. doi: 10.2106/00004623-198870040-00019. PubMed PMID: WOS:A1988N036600019.
- 326. Eady JL, Yaszemski MJ. The use of the CT scan in the evaluation of non-popliteal synovial cysts about the knee. Orthopedics. 1987; 10(2):303-4. PubMed PMID: WOS:A1987G097000005.

## Peer-Reviewed Manuscripts Submitted or in Preparation:

- 1. Khan F, Lewallen DG, Yaszemski MJ: Effect of spinal deformity on the rate of dislocation following total hip arthroplasty. *In prep.*, *April 2018*
- 2. Eastlack RK, Phimolsarnti R, Huddleston PM, Hugate R, Barnes S, An K-N, Sim FH, Yaszemski MJ: The biomechanical strength of the sacral reconstruction after total sacrectomy utilizing bilateral fibular A-frame or truss technique. *In prep.*, *April 2018*
- 3. Zeng H, Fang Z, Dadsetan M, Yaszemski MJ, Lu L. Enhancing biocompatibility of poly(propylene-co-caprolactone) copolymers for bone tissue engineering. J Biomed Mater Res. *In prep.*, *April* 2018
- 4. Young E, Currier BL, Yaszemski MJ, and Larson AN: Cervical Spine Disease Common after Pediatric Treatment of AIS at Mean 30-Year Follow-Up. *In prep, April 2018*
- 5. England K, Larson AN, Polly, Jr. DW, Ledonio CGT, Yaszemski MJ: Thoracic Volume and Pulmonary Function at Minimum of 20-Years Following Treatment of Adolescent Idiopathic Scoliosis: Preliminary Results. *In prep.*, *April 2018*
- 6. Larson AN, Shaughnessy WJ, Ledonio CGT, Cowl C, Polly Jr. DW, Yaszemski MJ: Reduced Pulmonary Function in AIS Patients with Hypokyphosis: Mean 30-Year Follow-up. *In prep.*, *April* 2018
- 7. Larson AN, Polly Jr. DW, Shaughnessy WJ, Ledonio CGT, Yaszemski MJ: Minimum 20-Year Radiographic Outcomes for Treatment of Adolescent Idiopathic Scoliosis: Preliminary Results from a Novel Cohort of U.S. Patients. *In prep.*, *April* 2018

## **Non Peer-Reviewed Publications:**

- 1. Yaszemski MJ: Research Grant Committee Update. Scoliosis Research Society News, p. 4, January 2004
- 2. Yaszemski MJ: Treatment of Herniated Disks. Mayo Clinic Web-based public question service, October, 2004
- 3. Toohey D, Boden S, Harvey ED, and Yaszemski MJ (American Academy of Orthopaedic Surgeons, Biological Implants Committee): Don't expose yourself or your institution to unnecessary risk: Not every medical device can be used off-label. American Academy of Orthopaedic Surgeons Bulletin, October 2005
- 4. Lu L and Yaszemski MJ: Introduction to the Special Issue on Biomaterials for Spinal Applications. Biomaterials 27(3): 289, 2006
- 5. Greenwald AS, Boden SD, Goldberg VM, Yaszemski MJ, and Heim CS: Bone Graft Substitutes: Facts, Fictions, and Applications. Exhibit prepared by the American Academy of Orthopaedic Surgeons, Orthopaedic Device Forum, American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006
- 6. Greenwald AS, Boden SD, Goldberg VM, and Yaszemski MJ: Bone Graft Substitutes: Facts, Fictions, and Applications. Exhibit prepared by the American Academy of Orthopaedic Surgeons, Orthopaedic Device Forum, 75<sup>th</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, March 5-9, 2008
- 7. Kempen DHR, Cremmers LB, Alblas J, Lu L, Verbout AJ, Yaszemski MJ, Dhert WJA: Growth factor interactions in bone regeneration. Tissue Engineering, Part B, 16(6):1-16, 2010
- 8. Demiralp B, Sarkar G, Okuno SH, Yaszemski MJ, Maran A: Osteosarcoma An evaluation of current diagnosis, treatment, and chemotherapy. European Musculoskeletal Review, 6(1):18-23, 2011
- 9. Yaszemski, MJ: Bedside to Bench and Back: Musculoskeletal Tissue Engineering. Center for Clinical and Translational Science (CCaTS) Grand Rounds, Mayo Clinic Rochester, Feb. 20, 2015; Mayo Clinic Physical Medicine and Rehabilitation video series: Part 3, Focus on Muscle, (http://medprofvideos.mayoclinic.org/videos/grand-rounds-bedside-to-bench-and-back-musculoskeletal-tissue-engineering?utm\_source=broadcastmed&utm\_medium=email \_002&utm\_campaign=mac\_6098&utm\_content=musculoskeletal\_tissue\_engineering), launched on 21 January 2016

## **Books or Book Chapters Published:**

- 1. Yaszemski MJ, White III AA, and Panjabi MM: Biomechanics of the spine. In <u>Handbook of Clinical Neurology</u>, Vol 26, Chapter 1, <u>Spinal Cord Trauma</u>, edited by PK Vinken, Elsevier Science Publishers, Amsterdam, The Netherlands, 2nd edition, pp 1-35, 1992
- 2. Thomson RC, Yaszemski MJ, Powers JM, and Mikos AG: A novel biodegradable poly (lactic-co-glycolic acid) foam for bone regeneration. <u>Biomaterials for Drug and Cell Delivery</u>, *editors*, AG Mikos, RM Murphy, H Bernstein, and NA Peppas. Materials Research Society, Pittsburgh, PA, 331: 33-40, 1994
- 3. Ishaug SL, Yaszemski MJ, Bizios R, and Mikos AG: Osteoblast adhesion on biodegradable polymer substrates. <u>Biomaterials for Drug and Cell Delivery</u>, *editors*, AG

- Mikos, RM Murphy, H Bernstein, and NA Peppas. Materials Research Society, Pittsburgh, PA, 331: 121-126, 1994
- 4. Yaszemski MJ, Mikos AG, Payne RG, and Hayes WC: Biodegradable polymer composites for temporary replacement of trabecular bone: The effect of polymer molecular weight on composite strength and modulus. In <u>Biomaterials for Drug and Cell Delivery</u>, *editors*, AG Mikos RM Murphy, H Bernstein, and NA Peppas. Materials Research Society, Pittsburgh, PA, 331: 251-256, 1994
- 5. Yaszemski MJ, Payne RG, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: The *in vitro* mechanical strength and *in vivo* bone ingrowth of a degrading polymeric composite biomaterial. In <u>Polymers in Medicine and Pharmacy</u>, *editors*, K Leong, J Tamada, AG Mikos, MJ Yaszemski, and M Radomsky. Materials Research Society, Pittsburgh, PA, 394: 21-24, 1995
- 6. Suggs LJ, Payne RG, Kao EY, Alemany LB, Yaszemski MJ, Wu KK, and Mikos AG: The synthesis and characterization of a novel block copolymer consisting of poly (propylene fumarate) and poly (ethylene oxide). In <u>Polymers in Medicine and Pharmacy</u>, *editors*, K Leong, J Tamada, AG Mikos, MJ Yaszemski, and M Radomsky. Materials Research Society, Pittsburgh, PA, 394: 167-173, 1995
- Thomson RC, Yaszemski MJ, Powers JM, Harrigan TP, and Mikos AG: Poly (α-hydroxy ester)/short fiber hydroxyapatite composite foams for orthopaedic application. In Polymers in Medicine and Pharmacy, editors, K Leong, J Tamada, AG Mikos, MJ Yaszemski, and M Radomsky. Materials Research Society, Pittsburgh, PA, 394: 25-30, 1995
- 8. Yaszemski MJ, and Mikos AG: Degradable polymers with osteoblast transplantation as strategies for bone tissue engineering. Cytotechnology 17(Suppl. 1), 1995
- 9. Thomson RC, Yaszemski MJ, and Mikos AG: Polymer scaffold processing. In <u>Textbook of Tissue Engineering</u>, *editors*, R Lanza, R Langer, and W Chick, RG Landes Company, pp 261-270, 1996
- 10. Gresser JD, Trantolo DJ, Nagaoka H, Wise DL, Altobelli DE, Yaszemski MJ, and Wnek GE: Bone cement. Part I: Biopolymer for avulsive maxillofacial repair. In <u>Biomaterials Applications</u>, *editors*, DL Wise, JD Gresser, DJ Trantolo, DE Altobelli, and MJ Yaszemski, Humana Press, pp 169-185, August 1996
- 11. Gresser JD, Trantolo DJ, Wise DL, Altobelli DE, Yaszemski MJ, and Wnek GE: Biopolymer alloy for surgical plates. In <u>Biomaterials Applications</u>, *editors*, DL Wise, JD Gresser, DJ Trantolo, DE Altobelli, and MJ Yaszemski, Humana Press, pp 99-113, August 1996
- 12. Wise DL, Trantolo DJ, Nagaoka H, Gresser JD, Altobelli DE, Yaszemski MJ, and Wnek GE: Bone cement. Part II: Biomaterials to restore function in people with physical disabilities. In <u>Biomaterials Applications</u>, *editors*, DL Wise, JD Gresser, DJ Trantolo, DE Altobelli, and MJ Yaszemski, Humana Press, pp 187-201, August 1996
- 13. Peter SJ, Miller MJ, Yaszemski MJ, and Mikos AG: Poly(Propylene Fumarate). In <u>Handbook of Biodegradable Polymers. (Drug targeting and delivery, v7)</u>, *editors*, AJ Domb, J Kost, and D Wiseman, Hardwood Academic Publishers, Amsterdam, pp 87-97, 1997
- 14. Peter SJ, Miller MJ, Yasko AW, Yaszemski MJ, and Mikos AG: Polymer Concepts Regarding Tissue Engineering. In <u>Portland Bone Symposium</u>, Oregon Health Sciences University, Portland, pp 474-489, 1997

- 15. Payne RG, Sivaram SA, Babensee JE, Yaszemski MJ, Yasko AW, and Mikos AG: Marrow Stromal Osteoblast Encapsulation and Seeding onto a Crosslinking Biodegradable Polymer. In <u>Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering</u>, NA Peppas, DJ Mooney, AG Mikos, and L Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 87-89, 1997.
- 16. Thomson RC, Yaszemski MJ, Powers JM, and Mikos AG: Hydroxyapatite Fiber Reinforced Poly(a-Hydroxy Ester) Foams for Bone Regeneration. In <u>Biomaterials</u>, <u>Carriers for Drug Delivery</u>, and <u>Scaffolds for Tissue Engineering</u>, NA Peppas, DJ Mooney, AG Mikos, and L Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, pp 269-271, 1997
- 17. Kim DJ, Peter SJ, Yasko AW, Miller MJ, Yaszemski MJ, and Mikos AG: TGF-β Induced Osteoblastic Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial. In Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering, NA Peppas, DJ Mooney, AG Mikos, and L Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, pp 278-280, 1997
- 18. Peter SJ, Kim P, Yasko AW, Yaszemski MJ, and Mikos AG: Crosslinking Characteristics of an Injectable Poly(Propylene Fumarate)/β-Tricalcium Phosphate Paste and Mechanical Properties of the Crosslinked Composite for Use as a Biodegradable Bone Cement. In Biomaterials Regulating Cell Function and Tissue Development, RC Thomson, DJ Mooney, KE Healy, Y Ikada, and AG Mikos, Eds., MRS Symposium Proceedings, Vol 530, Materials Research Society, Pittsburgh, pp 87-92, 1998
- 19. Yaszemski MJ and Yasko AW: Orthopedic surgical applications. In <u>Frontiers in Tissue Engineering</u>, *editors*, CW Patrick, Jr, AG Mikos and LV McIntire, Elsevier Science Ltd, Oxford, pp 197-212, 1998
- 20. Von Recum HA, Yaszemski MJ, and Mikos AG: Tissue engineering concepts. In <u>Handbook of Biomaterials Evaluation</u>, 2<sup>nd</sup> edition, AF Von Recum (*editor*), Taylor and Francis, Philadelphia, pp 385-409, 1999
- 21. Thomson RC, Shung AK, Yaszemski MJ, and Mikos AG: Polymer scaffold processing. In <u>Principles of Tissue Engineering</u>, 2<sup>nd</sup> Ed., *editors*, RP Lanza, R Langer, and JP Vacanti, Academic Press, San Diego, pp 251-262, 2000
- 22. Christensen DM, Currier BL, and Yaszemski MJ: Clinical problems. In R Gruliow, (ed): Orthopaedics, Section 8 Spine. Philadelphia, PA: Mosby, Inc, *in press*
- 23. Yaszemski MJ, Oldham JB, Lu L, and Currier BL: Clinical needs for bone tissue engineering technology. In <u>Bone Engineering</u>, JE Davies, Ed, em squared, Toronto, pp 541-547, 2000
- 24. Payne RG, Yasko AW, Yaszemski MJ, and Mikos AG: Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres for Bone Tissue Engineering. In Biomaterials for Drug Delivery and Tissue Engineering, editors, S Mallapragada, M Tracy, B Narasimhan, E Mathiowitz, and R Korsmeyer, MRS Symposium Proceedings, Vol 662, Materials Research Society, Warrendale, pp LL1.7.1-LL1.7.5, 2001
- 25. Yaszemski MJ, Panjabi MM, and White III AA: Biomechanics of the spine. In Orthopaedic Knowledge Update: Spine, 2<sup>nd</sup> Ed, D Fardon, *editor*, 2002
- 26. Long M, Talac R, and Yaszemski MJ: Issues involving standards development for synthetic material bone graft substitutes. In <u>Bone Graft Substitutes: A Multidisciplinary Perspective</u>. C Laurencin, *editor*, American Society for Testing and Materials International, West Conshohocken, PA, pp 298-308, 2003

- 27. Jabbari E, Lu L, Currier BL, Mikos AG, and Yaszemski MJ: Injectable Polymers and Hydrogels for Orthopaedic and Dental Applications. In <u>Tissue Engineering in Musculoskeletal Clinical Practice</u>, LJ Sandell and AJ Grodzinsky, *editors*, American Academy of Orthopaedic Surgeons, Rosemont, IL, pp 331-340, 2004
- 28. Yuan PS, Kim CW, Yaszemski MJ, and Currier BL: Primary benign tumors. In <u>Spine</u>: <u>Orthopaedic Surgery Essentials</u>, SR Garfin and CM Bono, *editors*, Lippincott, Williams, and Wilkins, pp 86-91, 2004
- 29. Kim CW, Yuan PS, Yaszemski MJ, and Currier BL: Primary malignant tumors. In <u>Spine</u>: <u>Orthopaedic Surgery Essentials</u>, SR Garfin and CM Bono, *editors*, Lippincott, Williams, and Wilkins, pp 92-96, 2004
- 30. Walker MP, Yaszemski MJ, Kim CW, Talac R, and Currier BL: Metastatic tumors. In <u>Spine: Orthopaedic Surgery Essentials</u>, SR Garfin and CM Bono, *editors*, Lippincott, Williams, and Wilkins, pp 97-105, 2004
- 31. Jacofsky DJ, Currier BL, and Yaszemski MJ: Complications in the treatment of spinal trauma. In <u>Spine Trauma</u>, 2<sup>nd</sup> Ed., AM Levine, Eismont, Garfin, Zigler, *editors*, Sanders, Inc, Philadelphia, 2005
- 32. Florschutz AV, Dadsetan M, and Yaszemski MJ: Surgical Principles of Biomaterial Implantation. In Encyclopedia of Biomaterials and Biomedical Engineering, G Wnek and Bowlin, *editors*, Marcel Dekker, New York, ISBN 0824755626, 2005
- 33. Jabbari E, Lu L, and Yaszemski MJ: Synthesis and characterization of injectable and biodegradable composites for orthopaedic applications. In <u>Handbook of Biodegradable Polymeric Materials and their Applications</u>, Volume 2: <u>Applications</u>, SK Mallapragada and B Narasimhan, *editors*, American Scientific Publishers, Stevenson Ranch, California, ISBN 1-58883-055-1, pp 239-270 (Chapter 11), 2006
- 34. Wang S, Lu L, Currier BL, and Yaszemski MJ: Orthopedic prostheses and joint implants. In: SA Guelcher and JO Hollinger, *editors*, <u>An Introduction to Biomaterials</u>. CRC/Taylor and Francis Press, Boca Raton, Florida, pp 369-393, 2006
- 35. Dadsetan M, Lu L, and Yaszemski MJ: Electron Microscopy. In: <u>Encyclopedia of Medical Devices and Instrumentation</u>, Second Edition, John G Webster, *Editor-in-Chief*. Hoboken: John Wiley & Sons, pp 478-488, 2006
- 36. Lu L, Jabbari E, Moore MJ, and Yaszemski MJ: Animal models for evaluation of tissue engineered orthopedic implants. In <u>Biomedical Engineering Handbook</u>, 3<sup>rd</sup> Edition, JD Bronzino, *editor*, CRC Press, Boca Raton, Florida, ISBN 9780849321245, 2006
- 37. Lu, L, Jabbari E, Moore MJ, Yaszemski MJ: Animal Models for Evaluation of Tissue-Engineered Orthopedic Implants. In <u>Tissue Engineering and Artificial Organs</u>, Taylor and Francis, Boca Raton, FL, ISBN 0849321239, Chapter 45, pp45-1-45-10, 2006
- 38. Chang MA, Cyr SJ, Yaszemski M, Currier BL: Vertebral osteomyelitis/diskitis. American Academy of Orthopaedic Surgeons Web site: Orthopaedic Knowledge Online: <a href="http://www5.aaos.org/oko/description.cfm?topic=SPI020">http://www5.aaos.org/oko/description.cfm?topic=SPI020</a>. Vol 5, Number 8, Accessed September 5, 2007
- 39. Chang MA, Yaszemski MJ, Cyr SJ, Currier BL: Spinal Tuberculosis. American Academy of Orthopaedic Surgeons Web site: <a href="http://orthopedic.com/stopic.esh.">Orthopedic Knowledge Online:</a> http://orthoinfo.aaos.org/topic.cfm?topic=A00348. Accessed September 5, 2007
- 40. Lu L, Kaufman KR, and Yaszemski MJ: Biomechanics. In <u>Orthopaedic Basic Science:</u> foundations of clinical practice, 3<sup>rd</sup> Edition, Einhorn TA, O'Keefe RJ, Buckwalter JA, *editors*, American Academy of Orthopaedic Surgeons, Rosemont, IL, pp 49-64, 2007

- 41. van Gallen SM, Kruyt MC, Meijer GJ, Mistry AS, Mikos AG, van den Beucken JA, Jansen JA, de Groot K, Cancedda R, Olivo C Yaszemski MJ, Dhert WJ: Tissue Engineering of the Bone. In <u>Tissue Engineering</u>. Van Blitterswijk CA, Thomsen P, Williams D, Hubbell J, Cancedda R, De Bruijn JD, *editors*, Academic Press, Elsevier, ISBN: 978-0-12-370869-4, chapter 19, pg 559-610, 2008
- 42. Eastlack R, Kim C, Currier BL, and Yaszemski MJ: Complications in the treatment of spinal trauma. B Browner, J Jupiter, A Levine, P Trafton, C. Krettek, *editors*. In <u>Skeletal Trauma</u>, 4<sup>th</sup> Edition, *Saunders Elsevier*, ISBN: 978-1-4160-2220-6, pp. 1053-1076, 2009
- 43. Biermann JS, Holt GE, Lewis VO, Schwartz HS, Yaszemski, MJ: Metastatic Bone Disease: Diagnosis, Evaluation and Treatment. JS Biermann, *editor*. In <u>Instructional Course Lectures</u>, American Academy of Orthopaedic Surgeons, 59:593-606, 2010
- 44. Wang S, Lu L, Currier BL, Yaszemski MJ: In <u>Introduction to Biomaterials</u>, Orthopaedic Prostheses and Joint Implants, Chapter 25, Guelcher, S. A.; Hollinger, J. O. Eds. 2nd Edition. Boca Raton: CRC Press, 2010
- 45. Sim FH and Yaszemski MJ: Iliosacral arthrodesis. In <u>Master Techniques in Orthopaedic Surgery: Orthopaedic Oncology and Complex Reconstruction</u>, Sim FH, Choong P, Weber K, *editors*. Lippincott Williams & Wilkins, chapter 7, 2011
- 46. Rose PS, Aboulafia AA, Sim FH, and Yaszemski MJ: <u>The Management of Spino-sacro-pelvic Tumors.</u> Master Technique Series, Orthopaedic Knowledge Update, 2011
- 47. Lu L, Westendorf, JJ, and Yaszemski, MJ: <u>Bone Biology and Engineering</u> (OBS-04-Yaszemski). Orthopaedic Basic Science: Foundations of Clinical Practice. 4<sup>th</sup> edition. American Academy of Orthopaedic Surgeons, 2013. 281-93
- 48. Aleem IS, Akhter MS, Yaszemski MJ: <u>The Future of Biological Treatments for Spinal Cord Injury and Nerve:</u> Let's Discuss Biologics, *in press 2016*
- 49. Zang J, Lu L, Yaszemski MJ: <u>Bone Disorders:</u> Materials and Devices for Bone Disorders. 2016. p. 83-118
- 50. Nassr A, Cui Q, Yaszemski MJ: Smith-Petersen and Pedicle Subtraction Oesteotomies. Surgical Atlas of Spinal Operations, 2<sup>nd</sup> Edition, Chapter 35, 2017
- 51. Hevus I, Voronov A, Yaszemski MJ, Maran A, Kohut A, Voronov S: <u>Anticancer efficiency of curcumin-loaded invertible polymer micellar nanoassemblies:</u>
  Nanostructures for Cancer Therapy. 2017. P.351-82
- 52. Miller AL II, Wang H, Yaszemski MJ, Lu L: <u>The Role of Electrical Field on Neurons: In vitro Studies</u>: Conductive Polymers: Electrical Interactions in Cell Biology and Medicine. CRC Press; 2017
- 53. Sim FH, Houdek MT, Rose PS, Moran SL, Yaszemski MJ: <u>Sacral Biomechanics and Reconstruction</u>: Tumors of the Sacrum: Diagnosis and Treatment of Benign and Malignant Tumors. 2017. p. 321-32

## Theses, Abstracts, and Conference Proceedings:

1. Yaszemski MJ: The preparation and characterization of a vinyl acetate - diallylamine copolymer latex to be used as an immunological reagent. Research report presented to the faculty of Lehigh University in candidacy for the degree of Master of Science in Chemical Engineering. Professor in charge: John W Vanderhoff, PhD. Faculty Committee: Leonard A Wenzel, PhD., Mohammed S El-Aasser, PhD., Gary Poehlein, Ph.D.; September 30, 1978

- 2. Thomson RC, Yaszemski MJ, Powers JM, and Mikos AG: A novel biodegradable poly (lactic-co-glycolic acid) foam for bone regeneration. Mat Res Soc Symp Proc 331: 33. Materials Research Society Symposium Proceedings, Boston, MA, November 29-December 1, 1993
- 3. Ishaug SL, Yaszemski MJ, Bizios R, and Mikos AG: Osteoblast adhesion on biodegradable polymer substrates. Materials Research Society Symposium Proceedings, Boston, MA, November 29-December 1, 1993
- 4. Yaszemski MJ, Mikos AG, Payne RG, and Hayes WC: Biodegradable polymer composites for temporary replacement of trabecular bone: The effect of polymer molecular weight on composite strength and modulus. Materials Research Society Symposium Proceedings, Boston, MA, November 29-December 1, 1993
- 5. Yaszemski MJ: A temporary replacement for trabecular bone: The design, synthesis, and evaluation of a novel degradable polymeric biomaterial. Thesis presented to the faculty of the Massachusetts Institute of Technology in candidacy for the degree of Doctor of Philosophy in Chemical Engineering, June 9, 1995. Professors in Charge: Robert Langer (MIT) and Wilson C Hayes (Harvard Medical School). Thesis Committee: Augustus A White III (Harvard Medical School), Myron Spector (Harvard Medical School), and Edward W Merrill (MIT)
- 6. Yaszemski MJ, Mikos AG, Payne RG, and Hayes WC: Synthesis and purification reaction schemes for poly(propylene fumarate), a novel degradable biomaterial for orthopaedic applications. Trans Soc Biomater 17: 460, 1994
- 7. Yaszemski MJ, Payne RG, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: The in vitro mechanical strength and in vivo bone ingrowth of a degrading polymeric composite biomaterial. Materials Research Society Symposium Proceedings, San Francisco, CA, April 17-21, 1995
- 8. Yaszemski MJ, Payne RG, Aufdemorte TB, Hayes WC, Langer RS, and Mikos AG: A temporary replacement for trabecular bone: The design and testing of a novel degradable composite material. Trans Soc Biomater 18: 184, 1995
- 9. Suggs LJ, Payne RG, Kao EY, Alemany LB, Yaszemski MJ, Wu KK, and Mikos AG: The synthesis and characterization of a novel block copolymer consisting of poly (propylene fumarate) and poly (ethylene oxide). In <u>Polymers in Medicine and Pharmacy</u>. AG Mikos, KW Leong, MJ Yaszemski, JA Tamada, and ML Radomsky, editors, Materials Research Society, Pittsburgh, Vol 394: 167-173, 1995
- 10. Thomson RC, Yaszemski MJ, Powers JM, Harrigan TP, and Mikos AG: Poly (α-hydroxy ester)/short fiber hydroxyapatite composite foams for orthopaedic application. In Polymers in Medicine and Pharmacy. AG Mikos, KW Leong, MJ Yaszemski, JA Tamada, and ML Radomsky, editors, Materials Research Society, Pittsburgh, Vol 394: 25-30, 1995
- 11. Pape HA, Zimmer WH, Delanois R, Yaszemski MJ, Witkowski E: Timetal® 21SRx: Technology transfer of Timetal®21S to medical device applications. Proceedings of the Eighth World Conference on Titanium, Birmingham, UK, PA Blenkinsop, WJ Evans, HM Flower, editors, The Institute of Materials, pp 1734-1741, 1995
- 12. Ishaug SL, Yaszemski MJ, Bizios R, Aufdemorte TB, and Mikos AG: Osteoblast migration on biodegradable poly(a-hydroxy esters). Proceed Bioeng Conf 29: 149-150, 1995

- 13. Jen AC, Ishaug SL, Yaszemski MJ, McIntire LV, and Mikos AG: Three dimensional in vitro mechanical model for bone formation. Trans World Biomater Congr 5: I-979, 1996
- 14. Topper SM, Murray PM, Smith DK, and Yaszemski MJ: The mechanism of carpometacarpal dislocations of the wrist. A biomechanical study. Orthopaedic Transactions 20(4): 1108, 1996-1997
- 15. Ishaug-Riley SL, Crane GM, Gurlek A, Miller MJ, Yasko AW, Yaszemski MJ, and Mikos AG: Ectopic bone formation using three-dimensional osteoblast/polymer constructs. Trans Orthop Res Soc 43: 545, 1997
- 16. Ishaug-Riley SL, Crane GM, Gurlek A, Miller MJ, Yasko AW, Yaszemski MJ, and Mikos AG: Ectopic bone formation by marrow stromal osteoblast transplantation using poly(DL-lactic-co-glycolic acid) foams implanted into the rat mesentery. Trans Soc Biomater 20: 1, 1997
- 17. Peter SJ, Nolley JA, Kim DB, Widmer MS, Engel PS, Yasko AW, Yaszemski MJ, and Mikos AG: Curing characteristics and mechanical properties of a poly(propylene fumarate) based orthopaedic biomaterial. Proceed Bioeng Conf 35: 359-360, 1997
- 18. Palmer C, Murray PM, Snearly W, Smith DK, and Yaszemski MJ: The mechanism of ulnar-sided perilunar instability of the wrist. Orthopaedic Transactions 22(2): 647, 1998-1999
- 19. He S-L, Yaszemski MJ, Yasko AW, and Mikos AG: Development of a biodegradable bone cement based on poly(propylene fumarate) and a macromer. Trans Soc Biomater 22: 12, 1999
- 20. Oldham JB, Porter BD, Tan T-S, Brisby H, Currier BL, Mikos AG, and Yaszemski MJ: Influence of changes in experimental parameters on size of PLGA microspheres. Proceed Bioeng Conf 42: 681-682, 1999
- 21. Oldham JB, Porter BD, Hefferan TE, Currier BL, Mikos AG, and Yaszemski MJ: Biologic activity of rhBMP-2 following release from PLGA microspheres. Proceed Bioeng Conf 42: 745-746, 1999
- 22. Porter BD, Oldham JB, Payne RG, An KN, Currier BL, Mikos AG, and Yaszemski MJ: Mechanical properties of a biodegradable bone regeneration scaffold. Proceed Bioeng Conf 42: 747-748, 1999
- 23. Peter SJ, Miller MJ, Yasko AW, Yaszemski MJ, and Mikos AG: Polymer concepts in tissue engineering. Trans Acad Dent Mater 13: 17-22, 1999
- 24. He S-L, Yaszemski MJ, Engel PS, and Mikos AG: Injectable, in situ, crosslinkable, biodegradable poly(propylene fumarate) networks for orthopaedic tissue engineering. Trans World Biomater Congr 6: 203, 2000
- 25. Lu L, Peter SJ, Stamatas GN, Kim DJ, Miller MJ, Yaszemski MJ, and Mikos AG: Controlled release of TGF-β1 from biodegradable polymer microparticles and its effects on marrow stromal osteoblast function. Abstr Intern Confer Bone Morphogen Prot, Abstract 119, June 2000
- 26. Zhu X, Lu L, Gill JS, Windebank AJ, and Yaszemski MJ: Controlled release of antisense oligonucleotides from biodegradable microparticles. Abstr Soc Neurosci Meeting, Abstract 189.4, November 2000
- 27. He S-L, Ulrich J, Valenzuela RG, Zobitz M, An KN, Currier BL, Mikos AG, and Yaszemski MJ: Mechanical Properties of Biodegradable Poly(Propylene Fumarate)-Bone Fiber Composites During the Degradation Process, Trans Soc Biomater 24: 149, 2001

- 28. Zhu X, Lu L, Windebank AJ, and Yaszemski MJ: Effects of PEG content on controlled release of antisense oligodeoxynucleotides from PLGA/PEG microparticles. Trans Soc Biomater 24: 56, 2001
- 29. Lu L, Valenzuela RG, Ghasemkhani AR, Zhu X, O'Driscoll SW, and Yaszemski MJ: Effects of dynamic fluid pressure on chondrocytes cultured in polymer scaffolds. Trans Soc Biomater 24: 254, 2001
- 30. Kharas GB, Villaseñor G, Herrman J, Kharas K, Watson K, and Yaszemski MJ: Synthesis and characterization of fumarate copolyesters for biomedical composites. Transactions of the Society for Biomaterials 27<sup>th</sup> Annual Meeting, St. Paul, MN, #414, 2001
- 31. Kharas GB, Villaseñor G, Herrman J, Mc Colough K, Passe LB, Scola III A, Watson K, and Yaszemski MJ: Fumarate based polyester for use in bioresorbable bone cement compositions. Polymer Preprints, 42: 409, the 221<sup>st</sup> ACS National Meeting, Chicago, IL, 2001
- 32. Zhu X, Lu L, Currier BL, Windebank AJ, and Yaszemski MJ: Acidity of release medium strongly affects poly (DL-lactic-co-glycolic acid)/ethylene glycol) microparticle degradation and oligonucleotide release kinetics. Proceedings of the International Symposium on Controlled Release of Bioactive Materials 28: 604-605, 2001
- 33. Burdick JA, Poshusta AK, Yaszemski MJ, and Anseth KS: In vivo photopolymerization of degradable polyanhydride networks in a tibia defect. Trans. 48<sup>th</sup> Annual Meeting, Orthopaedic Research Society, 27: 1071, 2002
- 34. Kempen DHR, Lu L, Zhu X, Currier BL, and Yaszemski MJ: Controlled delivery of a model drug from poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres. Trans Soc Biomater 25: 254, 2002
- 35. Kempen DHR, Lu L, Zhu X, Currier BL, and Yaszemski MJ: Fabrication and characterization of poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres. Trans Soc Biomater 25: 490, 2002
- 36. Windebank AJ, Friedman JA, Lewellyn E, Ameenuddin S, Marin-Padilla M, Currier BL, Yaszemski MJ, and Moore MJ: Axonal regeneration into biodegradable polymer implants after spinal cord injury in rats. Neurology 60: A7, 2003
- 37. Friedman JA, Lewellyn EB, Ameenuddin S, Marin-Padilla, M, Gross L, Small AJ, Knight AM, Schermerhorn TC, Moore MJ, Jabbari E, Yaszemski MJ, and Windebank AJ: Schwann cell seeded biodegradable polymer implants promote axonal regeneration in spinal cord injury. J Peripher Nerv Syst 8: 14-15, 2003
- 38. Ameenuddin S, Knight AM, Chen B, Moore MJ, Krych AJ, Olson HE, Galvin KE, Sabharwal P, Gross L, Spinner RJ, Yaszemski MJ, Currier BL, and Windebank AJ: Biodegradable polymer implants as a platform for optimizing spinal cord injury repair strategies. J Rehabil Res Dev 40: 51-52, 2003
- 39. Yaszemski MJ, Currier BL, Maus TP, Larson DR: Relationship of the internal carotid artery to the anterior aspect of the C1 vertebra: Implications for C1-2 transarticular and C1 lateral mass screw fixation. Scoliosis Research Society 38<sup>th</sup> Annual Meeting (electronic poster #53, pg 279), Quebec City, Quebec, Canada, September 9-13, 2003
- 40. Jabbari E, Gruetzmacher JA, Lu L, Currier BL, and Yaszemski MJ: Synthesis and characterization of nano-hydroxyapatite grafted with biodegradable and crosslinkable fumaric-adipic acid macromere (poster poly #22). Polymer Chemistry in

- Nanotechnology Symposium, Division of Polymer Chemistry, 226<sup>th</sup> American Chemical Society National Meeting, New York, NY, September 7-11, 2003
- 41. Fuchs B, Yaszemski MJ, Inwards C, and Sim FH: Operative management of sacrococcygeal chordomas. Proceedings of the 71<sup>st</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, #224, pp 626, 2004
- 42. Mardones RM, Reinholz GG, Fitzsimmons JS, Yaszemski MJ, Lewallen DL, and O'Driscoll SW: Development of a biologic prosthetic composite for cartilage repair. Transactions of the Orthopaedic Research Society 50th Annual Meeting 2004
- 43. Mardones RM, Reinholz GG, Fitzsimmons JS, Zobitz ME, An K-N, Yaszemski MJ, Lewallen DL, and O'Driscoll SW: Development of a biosynthetic prosthesis composite for cartilage repair. 5th ICRS Symposium Transactions 2004
- 44. Yaszemski MJ, Krauss W, currier B: Spinopelvic Reconstruction Following Sacropelvic Resection for Tumors (poster #31, pg 171). 39<sup>th</sup> Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004
- 45. Hefferan TE, Jabbari E, Mardones R, Florschutz A, Lu L, Currier BL, and Yaszemski MJ: rhBMP-2 enhances bone formation in a biodegradable scaffold (poster #SA018). Annual Meeting of the Society for Bone and Mineral Research, 2005
- 46. Maran A, Skogren KL, Zhang M, Yaszemski MJ, Turner RT: Evidence that interferon signaling is required for 2-ME-mediated osteosarcoma cell death (poster #SU097). Annual Meeting of the Society for Bone and Mineral Research, 2005
- 47. Mardones RM, Reinholz GG, Fitzsimmons JS, Zobitz ME, An K-N, Lewallen DL, Yaszemski MJ, and O'Driscoll SW: Biomechanical properties of a biologic prosthetic composite for cartilage repair. Transactions of the Orthopaedic Research Society 51st Annual Meeting 2005
- 48. Knight AM, GeorgiS, Liang ET, Liu L, Moore MJ, Nesbit JJ, Wang S, Jabbari E, Spinner RJ, Currier, BL, Yaszemski MJ, Windebank AJ. Manipulation of the microenvironment within multi-channel biodegradable polymer nerve scaffolds. 11<sup>th</sup> Symposium on Neural Regeneration, December 14-18, 2005
- 49. de Ruiter GC, Knight AM, Moore MJ, Liang E, Gorgyi S, Lu L, Jabbari E, Wang S, Currier BL, Marsh WR, Yaszemski MJ, Spinner RJ, and Windebank AJ: Biodegradable polymer scaffolds for spinal cord regeneration: I, optimizing characteristics for biocompatibility (P06.058). Neurology 64(6): A357, 2005
- 50. Windebank AJ, Vaishya S, Schiefer TK, Currier BL, Olson HE, Chen B, Ameenuddin S, Gross L, de Ruiter GC, Macura SI, Mishra PK, Marsh WR, Spinner RJ, and Yaszemski MJ: Biodegradable polymer scaffolds for spinal cord regeneration: II, Optimizing Scaffold Stability To Promote Regeneration (P06.045). Neurology 64(6): A353, 2005
- 51. Knight AM, Georgi S, Issa A, de Ruiter GCW, Yaszemski MJ, and Windebank AJ: Peptide attachment to biodegradable polymers for axonal guidance in spinal cord injury. Journal of Neurochemistry 94: 45, 2005
- 52. deRuiter GCW, Moore MJ, Wang S, Malessy MMJA, Spinner RJ, Sorenson EJ, Dyck PJ, Currier BL, Yaszemski MJ, and Windebank AJ: On the use of biodegradable multichannel conduits for peripheral nerve repair. J Peripheral Nervous System 10 (Supplement), 10: 20, 2005
- 53. Cyr SJ, Currier BL, Foy A, Chen Q, Larson DR, Yaszemski MJ, and An KN: Fixation strength of unicortical versus bicortical C1-C2 transarticular screws (poster #67, pg 304).

- Cervical Spine Research Society, 33<sup>rd</sup> Annual Meeting, San Diego, CA, December 1-3, 2005
- 54. Knight AM, Dadsetan M, Wang S, Liang E, Nesbit J, Liu L, Jabbari E, Yaszemski MJ, Currier B, Spinner RJ, Marsh WR, Windebank AJ. Surface modification of polymers to increase biocompatibility. Galway, Ireland, July 2006
- 55. Knight AM, Dadsetan M, Wang S, Liang E, Nesbit J, Liu L, Jabarri E, Yaszemski MJ, Currier B, Spinner RJ, Marsh WR, Windebank AJ. Surface modification of polymers to increase biocompatibility. NIBIB Annual Grantee Meeting, Washington, DC, October 16, 2006
- 56. Mrosek EH, Chung HW, Schageman JC, Reinholz GG, Fitzsimmons JS, Stone JJ, Amrami KK, Felmlee JP, Yaszemski MJ, and O'Driscoll SW: Porous tantalum and polyε-caprolactone (PCL) scaffolds for the repair of osteochondral defects in a rabbit model. 6th ICRS Symposium Transactions, 2006
- 57. Florschutz AV, Itala A, Hefferan TE, Vathana T, Leerapun T, Bishop AT, Patel R, Kaufman KR, Yaszemski MJ, and Lewallen DG: Osseointegrated tantalum implants for fixation of limb prostheses (paper #0951). 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 58. Florschutz AV, Itala A, Hefferan TE, Lewallen DG, and Yaszemski MJ: In vitro release of cisplatin from biodegradable poly(DL-lactic-co-glycolic acid) microsphere vehicles (paper #0928). 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 59. Hefferan TE, Florschutz AV, Mardones RM, Jabbari E, Lu L, Maran A, Currier BL, Yaszemski MJ: rh-BMP-2 enhances bone formation in a biodegradable scaffold (paper #0232). 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 60. Maran A, Dadestan M, Shogren KL, Lu L, Hefferan TE, Yaszemski, MJ: A novel bioassay for evaluating estrogenic effects (paper #1629). 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 61. Dadestan M, Maran A, Shogren K, Hefferan T, Lu L, Yaszemski MJ: DNA delivery into bone tumor cells using hydrogel encapsulation (paper #0895). 52<sup>nd</sup> Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22, 2006
- 62. Dadsetan M, Rajagopalan S, Hefferan TE, Lu L, and Yaszemski MJ: Effect of hydrogel porosity on marrow stromal cell phenotypic expression (oral presentation, CD #ISSN1526-7547). 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 28, 2006
- 63. Rajagopalan S, Lu L, Robb RA, and Yaszemski MJ: Design and fabrication of biomorphic tissue engineering scaffolds using trigonometric templates (oral presentation, CD ISSN#1526-7547). 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006
- 64. Rajagopalan S, Lu L, Robb RA, and Yaszemski MJ: Design and fabrication of durotaxic tissue engineering scaffolds (oral presentation, CD ISSN#1526-7547). 31<sup>st</sup> Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006
- 65. Wang S, Lu L, Kempen DHR, Nesbitt JJ, de Ruiter GCW, Gruetzmacher JA, Knight AM, Currier BL, Hefferan T, Windebank AJ, Yaszemski MJ. Cell responses regulated by the bare hydrophobic polymer surface with controllable stiffness. Gordon Research Conference, Connecticut College, New London, CT, July 2-7, 2006

- 66. Wijdicks CA, Hefferan TE, Lu L, Gruetzmacher JA, Maran A, and Yaszemski MJ: Rat marrow stromal cell attachment on poly (propylene fumarate) and poly (ε caprolactone fumarate) two dimensional scaffolds with varying hydroxyapatite incorporation (poster #SA216; pg S157). 28<sup>th</sup> Annual American Society for Bone and Mineral Research Meeting, Philadelphia, PA, 15-19 September 2006
- 67. Szatkowski JP, Dadsetan M, Lu L, and Yaszemski MJ: Effect of hydrogel charge on marrow stromal cell chondrogenic phenotypic expression (poster # 712, CD ISSN#1526-7547). Society for Biomaterials 2007 Annual Meeting, Chicago, IL, April 18-21, 2007
- 68. Wang S, Kempen DH, Lee K-W, Yaszemski MJ, and Lu L: Novel polymers and nanocomposites as injectable bone tissue engineering materials (oral presentation #35, CD ISSN#1526-7547). Society for Biomaterials 32<sup>nd</sup> Annual Meeting, Chicago, IL, April 19, 2007
- 69. Kim J, Lu L, Currier BL, and Yaszemski MJ: Controlled drug release from bioerodible hydrogels based on poly(ethylene glycol) and sebacic acid (poster #297, CD ISSN#1526-7547). Society for Biomaterials 2007 Annual Meeting, Chicago, IL, April 18-21, 2007
- 70. Dadsetan M, Knight AM, Vallejo C, Lu L, Windebank AJ and Yaszemski MJ: Stimulation of neurite outgrowth using a positively charged hydrogel (poster #317, CD ISSN#1526-7547). Society for Biomaterials 2007 Annual Meeting, Chicago, IL, April 18-21, 2007
- 71. Dadsetan M, Knight AM, Arcaute-Cantu K, Brophy C, Mirzadeh H, Wicker RB, Windebank AJ, and Yaszemski MJ: Characterization of charged hydrogels for nerve regeneration (oral presentation CD). 34<sup>th</sup> Annual Meeting of the Controlled Release Society, Long Beach, CA, July 7-11, 2007
- 72. Brophy C, Dadsetan M, Yaszemski MJ, and Maran A: Prolonged release of 2-methoxyestradiol from hydrogels (poster-CD). 34<sup>th</sup> Annual Meeting of the Controlled Release Society, Long Beach, CA, July 7-11, 2007
- 73. Knight AM, Dadsetan M, Wang S, Nesbitt JJ, Yaszemski MJ, Windebank AJ. Development and selection of biomaterials for artificial nerve tubes. Peripheral Nerve Society Meeting, Snowbird, Utah, July 14-18, 2007; J Peripher Nerv Syst, July 12(Suppl 1): 45, 2007
- 74. Benedikt M, Szatkowski JP, Shogren KL, Sarkar G, Yaszemski MJ: Anti-tumor actions of 2-methoxyestradiol is accompanied by an increase in osteoprotegrin expression in osteosarcoma cells (poster). The American Society for Bone and Mineral Research 29<sup>th</sup> Annual Meeting, Honolulu, HI, September 16-19, 2007
- 75. Kim J, Lu L, Hefferan TE, Currier BL, and Yaszemski MJ: Osteogenic differentiation on biodegradable hydrogels functionalized with charge and RGD peptide (poster) Biomedical Engineering Society 2007 Annual Fall Meeting, Los Angeles, CA, September 26-29, 2007, Proceedings p.5, #154
- 76. Dadsetan M, Hefferan TE, Szatkowski JP, Lu L, and Yaszemski MJ: Porous hydrogel for osteoblastic differentiation of marrow stromal cells (oral presentation #182). 6<sup>th</sup> Combined Meeting of the Orthopaedic Research Societies, Honolulu, HI, October 24-27, 2007
- 77. Sarkar G, Mahlum E, Halder C, Maran A, and Yaszemski MJ: Comparative surface proteome analysis between poorly metastatic and highly metastatic osteogenic sarcoma cells identifies candidate cell-surface markers for metastasis (poster #519). 6<sup>th</sup> Combined Meeting of the Orthopaedic Research Societies, Honolulu, HI, October 24-27, 2007

- 78. de Boer R, Knight AM, Malessy MJA, Spinner RJ, Yaszemski MJ, Windebank AJ: Effect of polymer composition on release kinetics of nerve growth factor (NGF) from polylactic-co-glycolic acid (PLGA) microspheres (presentation). American Society for Peripheral Nerve Annual Meeting, Beverly Hills, CA, January 11-13, 2008
- 79. Op den Buijs J, Kee KW, Jorgensen SM, Wang S, Yaszemski MJ, Ritman EL: High resolution x-ray imaging of dynamic solute transport in cyclically deformed porous tissue scaffolds (paper presentation). The International Society for Optical Engineering, San Diego, CA, February 16-21, 2008
- 80. Eck JC, Currier BL, Yaszemski MJ, Dekutoski MB: Radiographic and biomechanical evaluation of C1 lateral mass and C1-C2 transarticular screws to compare pullout strength and risk of injury to the internal carotid artery. 6<sup>th</sup> Annual AOSpine North America Fellows, April 3-6, 2008, Banff, Alberta, Canada
- 81. Dadsetan M, Knight AM, Vallejo C, Lu L, Windebank AJ, Yaszemski, MJ: Charge modification of hydrogels for nerve regeneration (poster). University of Minnesota's Design of Medical Devices Conference, Minneapolis, MN, April 15-17, 2008
- 82. Kempen DHR, Lu L, Hefferan TE, Creemers LB, Maran A, Yaszemski MJ, Dhert WJA: The effect of sequential VEGF and BMP-2 release on ectopic and orthotopic bone regeneration (oral presentation). 8<sup>th</sup> World Biomaterials Congress, Amsterdam, The Netherlands, May 28-June 1, 2008
- 83. Heine-Geldern A, Dadsetan M, Benedikt M, Gaustad D, Herrick J, Shogren KL, Maran A, Hefferan TE, Yaszemski MJ: Effect of dynamic flow on hydrogel-mediated phenotypic expression of human osteoblasts. 8<sup>th</sup> World Biomaterials Congress, Amsterdam, The Netherlands, May 28-June 1, 2008
- 84. Wang S, Yaszemski MJ, Knight AM, Windebank AJ, Lu L: Photocrosslinked Poly (ε-caprolactone fumarate) Networks for Peripheral Nerve Regeneration. 5<sup>th</sup> East-Asian Polymer Conference, Shanghai, China, June 3-6, 2008
- 85. Wang S, Yaszemski MJ, Lu, L: Polymer Dynamics and Rheology in Designing and Understanding Injectable Polymeric Biomaterials, 36<sup>th</sup> Annual Meeting of NATAS (North American Thermal Analysis Society), Atlanta, GA, August 18-20, 2008
- 86. Heine-Geldern A, Dadsetan M, Ozgo K, Maran A, Hefferan TE, Yaszemski MJ: Incorporation of hydroxyapatite into hydrogels enhances differentiation of osteoblasts. 8<sup>th</sup> World Biomaterials Congress, Amsterdam, The Netherlands, May 28-June 1, 2008
- 87. Wang S, Kempen DHR, Lu L, Windebank AJ, Yaszemski MJ: Material design strategies for bone and nerve regenerations: Controlled physical properties and regulated cell responses. The American Chemical Society National Meeting, New Orleans, LA, April 6-10, 2008
- 88. Dadsetan M, Ameenuddin S, Currier BL, Windebank AJ, Yaszemski MJ.
  Biocompatibility and biodegradation of PEG-based fumarate hydrogels for gene deliver:
  in vivo studies (poster). Controlled Release Society, 38<sup>th</sup> Annual Meeting and Exposition of the Controlled Release Society, New York, NY, July 12-16, 2008
- 89. Shogren KL, Mahlum E, Yaszemski MJ, Maran A: 2-Methoxyestradiol alters eIF4E activity and causes protein synthesis inhibition in osteosarcoma cells (poster, #961; JBMR 23:SU240). 30<sup>th</sup> Annual Meeting of the American Society for Bone and Mineral Research, Montreal, Quebec, Canada, September 12-16, 2008
- 90. Secreto F, Hoeppner LH, Stensgard B, Evans G, Hefferan TE, Yaszemski MJ, Westendorf JJ: Overexpression of Lef1ΔN increases bone mass density in mice (oral

- presentation, JBMR 23:S72 #1258). 30<sup>th</sup> Annual Meeting of the American Society for Bone and Mineral Research, Montreal, Quebec, Canada, September 12-16, 2008
- 91. De Ruiter GCW, Onyeneho I, Liang ET, Moore MJ, Malessy MJA, Spinner RJ, Lu L, Currier BL, Yaszemski MJ, Windebank AJ: Multichannel nerve tubes as alternative to autograft repair. 17<sup>th</sup> Meeting of the Sunderland Society, Rochester, MN, August 23-26, 2008
- 92. Dozois EJ, Larson DW, Cima RR, Spinner RJ, Wall JCH, Yaszemski MJY, Sim FH, Moran SL: Surgical management of pelvic neurogenic tumors: A multidisciplinary approach (poster). The International Union Against Cancer (IUCC) World Cancer Congress 2008, Geneva, Switzerland, August 27-31, 2008
- 93. Tsuchiya T, Shogren KL, Mahlum E, Maran A, Yaszemski MJ, Sarkar G: Transcriptional Silencing of Frzb/sFRP3 by Promoter methylation in osteogenic sarcoma (poster JBMR 23:S98). 30<sup>th</sup> Annual Meeting of the American Society for Bone and Mineral Research, Montreal, Quebec, Canada, September 12-16, 2008
- 94. Dadsetan M, Hefferan TE, Heine-Geldern A, Benedikt M, Gaustad D, Herrick J, Spelsberg TC, Lu L, Maran A, Yaszemski MJ: Sequestration, Proliferation and Differentiation of Osteoblasts in Hydrogels for Tissue Engineering Application (poster, JBMR 23:SA143). 30<sup>th</sup> Annual Meeting of the American Society for Bone and Mineral Research, Montreal, Quebec, Canada, September 12-16, 2008
- 95. Maran A, Dadsetan M, Brophy CM, Yaszemski MJ: Polymer-mediated controlled delivery prolongs the anti-tumor effects of 2-methoxyestradiol in bone cancer cells (oral presentation). The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 29-31, 2008
- 96. Dadsetan M, Knight AM, Lu L, Windebank AJ, Yaszemski MJ: Charge modification of hydrogels for nerve regeneration (oral presentation). The 9<sup>th</sup> New Jersey Symposium on Biomaterials Science and Regenerative Medicine, New Brunswick, NJ, October 29-31, 2008
- 97. de Boer R, Knight AM, Spinner RJ, Malessy MJA, Yaszemski MJ, Windebank AJ: AFIRM nerve regeneration project 1: growth factor releasing microspheres and the effect on peripheral nerve regeneration. 26<sup>th</sup> Army Science Conference, Orlando, FL, December 1-4, 2008
- 98. Knight KA, de Boer R, Giusti G, Walker-Santiago R, Wang H, Shin A, Yaszemski MJ, Windebank AJ: Biodegradable polymers as scaffolds in the repair of peripheral nerve injuries (poster). Armed Forces Institute of Regenerative Medicine (AFIRM), Saint Petersburg, FL, January 13-16, 2009
- 99. Wang H, de Ruiter G, de Boer R, Spinner R, Yaszemski MJ, Windebank AJ: Evaluation of rat limb function following nerve injury and repair (poster). Armed Forces Institute of Regenerative Medicine (AFIRM), Saint Petersburg, FL, January 13-16, 2009
- 100. Chen B, de Boer R, Knight AM, Wang H, Spinner R, Malessy MJA, Yaszemski MJ, Windebank AJ: Growth factor releasing microspheres and the effect on peripheral nerve regeneration (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-16, 2009
- 101. Dadsetan M, Hefferan TE, Heine-Gelder A, Spelsberg TC, Lu L, Maran A, Yaszemski MJ: Proliferation and differentiation of osteoblasts encapsulated in hydrogels (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-16, 2009

- 102. Dadsetan M, Knight AM, Lu L, Windebank AJ, Yaszemski MJ: Charge modification of hydrogels for nerve regeneration (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-16, 2009
- 103. Kempen D, Lu L, Hefferan T, Creemers L, Heijink A, Maran A, Dhert W, Yaszemski MJ: Intermittent PTH (1-34) administration enhances BMP-2 induced ectopic and orthotopic bone formation (oral presentation). 55<sup>th</sup> Annual Meeting of the Orthopaedic Research Society, Las Vegas, NV, February 22-25, 2009
- 104. KA Coleman Wood, Yaszemski MJ, Sim FH, Kaufman KR: Gait analysis post Hemipelvectomy/sacretomy with spinopelvic arthrodesis reconstruction (poster). Gait and Clinical Movement Analysis Society Annual Conference, Denver, CO, March 10-13, 2009
- 105. Runge BM, Dadsetan M, Yaszemski MJ: Fabrication of conducting composite materials of polypyrrole-polycaprolactone fumarate for nerve regeneration (oral presentation). 237<sup>th</sup> American Chemical Society National Meeting, Salt Lake City, UT, March 22-23, 2009
- 106. Runge BM, Dadsetan M, Maran A, Yaszemski MJ: Electrically conducting 3-dimensional porous scaffolds for bone regeneration (oral presentation). 237<sup>th</sup> ACS National Meeting, Salt Lake City, UT, March 22-23, 2009
- 107. Pumberger M, Dadsetan M, Yaszemski MJ: Effect of Electrical Charge on Chondrocyte Attachment (oral presentation), 35<sup>th</sup> Annual Northeast Bioengineering Conference, April 3-5, 2009
- 108. Dadsetan M, Vallejo C, Ameenuddin S, Windebank AJ, Yaszemski MJ: Biodegradation and biocapability of photocrosslinkable oligo(polyethylene glycol) fumarate hydrogels: in vitro and in vivo studies (poster). Society for Biomaterials, San Antonio, TX, April 22-25, 2009
- 109. Dadsetan M, Maran A, Runge B, Luigi HE, Brophy C, Shogren KL, Yaszemski MJ: Anti-tumor drug delivery using oligo(polyethylene glycol) hydrogel (poster). Society for Biomaterials, San Antonio, TX, April 22-25, 2009
- 110. Runge MB, Dadsetan M, Yaszemski MJ: Development of conducting polymer composites for peripheral nerve regeneration (oral presentation). Society for Biomaterials 2009 Annual Meeting, San Antonio, TX, April 22-25, 2009
- 111. Hefferan TE, Wang S, Jewison D, Burgess J, Lu L, Yaszemski MJ: Analysis of the In Vivo Bone Forming Capacity of a Copolymer Consisting of Poly(propylene fumarate) and Poly(ε-caprolactone) (poster). Society for Biomaterials 2009 Annual Meeting, San Antonio, TX, April 22-25, 2009
- 112. Rose PS, Dekutoski MB, Sems SA, Alderete, Yaszemski MJ, Shives TC, Sim FH. Percutaneous transsacral screw fixation and sacroplasty for treatment of pathologic sacral fractures. Minnesota Orthopedic Society, Minneapolis, MN, May 8, 2009
- 113. Yaszemski MJ, Rose PS, Currier SA, Dekutoski MB, Huddleston P, Nassr A, Shives TC, Sim FH. Classification of spinopelvic resections: oncologic and reconstructive implications. Minnesota Orthopedic Society, Minneapolis, MN, May 8, 2009
- 114. Pumberger M, Dadsetan M, Yaszemski MJ: Development of Charged Hydrogels for Cartilage Engineering, 36<sup>th</sup> Annual Controlled Release Society Meeting, Copenhagen, Denmark, July 18-22, 2009

- 115. Kulkarni A, Runge MB, Yaszemski MJ: Protein delivery from surface eroding polyanhydrides. Mayo Graduate School Summer Student Symposium, Mayo Clinic, Rochester, MN, August 4, 2009
- 116. Liu Z, Yaszemski MJ: Characterization of negatively-charged polyelectrolyte hydrogels for doxorubicin delivery. Mayo Graduate School Summer Student Symposium, Mayo Clinic, Rochester, MN, August 4, 2009
- 117. Sepulveda L, Runge MB, Yaszemski MJ: Optimizing Polycaprolactone fumarate as an injectable or preformed bone substitute. Mayo Graduate School Summer Student Symposium, Mayo Clinic, Rochester, MN, August 4, 2009
- 118. Runge MB, Dadsetan M, Baltrusaitis J. Ruesink T, Yaszemski MJ: Development of electrically conducing polypyrrole-hydrogel composite materials for application in nerve regeneration (oral presentation). American Chemical Society National Meeting, Washington DC, August 16-20, 2009
- 119. Runge MB, Dadsetan M, Baltrusaitis J. Ruesink T, Yaszemski MJ: Biocompatibility of polycaprolactone fumarate-polypyrrole composite materials: effect of anionic dopant on cell viability (poster). American Chemical Society National Meeting, Washington DC, August 16-20, 2009
- 120. Runge MB, Dadsetan M, Baltrusaitis J. Ruesink T, Yaszemski MJ: Evaluation of electrically conductive and non-conductive porous three-dimensional scaffolds (oral presentation). American Chemical Society National Meeting, Washington DC, August 16-20, 2009
- 121. Dadsetan M, Yaszemski MJ: Doxorubicin release from microspheres encapsulated within oligo (polyethylene glycol) fumarate hydrogel (oral presentation), American Chemical Society National Meeting, Washington DC, August 16-20, 2009
- 122. Dadsetan M, Yaszemski MJ: Incorporation of electrical charge into oligo (polyethylene glycol) fumarate hydrogel for cartilage regeneration (oral presentation), American Chemical Society National Meeting, Washington DC, August 16-20, 2009
- 123. Maran A, Shogren K, Sarkar G, Okuno S, Yaszemski MJ: FrzB/sFRP3 is a marker for chemotherapeutic actions in osteosarcoma cells (poster). American Society for Bone and Mineral Research, Denver, CO, September 11-15, 2009
- 124. Rooney GE, Knight AM, Madigan NN, Chen BK, Gross L, Nesbitt JJ, Dadsetan M, Yaszemski MJ, Windebank AJ: Sustained delivery of dbcAMP to the transected spinal cord via oligo [(polyethylene glycol) fumarate] hydrogels. Society for Neuroscience, Chicago, IL, October 17-21, 2009
- 125. Dekutoski MB, Yaszemski MJ, Rose PS, Currier BL, Huddleston PM, Nassr A, Pichelmann, MA, Sim FH: Classification of spinopelvic resections: oncologic and reconstructive implications, North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009
- 126. Noger M, Dekutoski MB, Boriani S, Yaszemski MJ, Rose PS: Reassessment of preoperative angiography in primary tumors of the thoracic spine. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009, *submitted*
- 127. Liu Z, Pumberger M, Dadsetan M, Yaszemski MJ: Characterization of negatively charged polyelectrolyte hydrogels for doxorubicin delivery (Travel Award, Poster), Biomedical Engineering Society, Pittsburgh, PA, October 9, 2009

- 128. Wang H, Herbert Blouin M-N, Windebank AJ, Yaszemski MJ, Spinner RJ: Nerve regeneration in the scarred and ischemic limb. 18 Meeting of the Sunderland Society, Shanghai, China, October 31-November 4, 2009
- 129. Wang H, Windebank AJ, Yaszemski MJ: Tissue Engineering: Application in Bone, Cartilage and Nerve Regeneration. 3rd Annual World Congress of Gene-2009 (WCG-2009), Foshan, China, December 6, 2009
- 130. Runge MB, Dadsetan M, Ruesink T, Yaszemski MJ: Evaluation of electrically conductive and non-conductive porous 3-dimensional scaffolds (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 131. Runge MB, Dadsetan A Knight, Windebank A, Yaszemski MJ: Development of electrically conductive polymeric scaffolds for nerve regeneration (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 132. Runge MB, Dadsetan M, Yaszemski MJ: Development of conducting polymer composites for peripheral nerve regeneration. Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 133. Hefferan TE, Herrick J, Burgess J, Jewison D, Evans G, Yaszemski MJ: Histological evaluation of scaffolds implanted into a canine femoral multiple defect model (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, Saint Petersburg, FL, January 13-15, 2010
- 134. Yaszemski MJ, Rose PS, Dekutoski MB, Huddleston P, Nassr A, Currier BL, Shives TC, Sim FH. Classification of spinopelvic resections: oncologic and reconstructive implications (poster #P543). American Academy of Orthopaedic Surgeons Annual Meeting, New Orleans, LA, March 12, 2010
- 135. Dadsetan M, Liu Z, Runge MB, Vallejo Giraldo C, Yaszemski MJ: Polyelectrolyte negatively charged hydrogel for doxorubicin delivery (poster). Society for Biomaterials, April 21-24, 2010, Seattle, WA
- 136. Runge MB and Yaszemski MJ: Development of Injectable Polymers that Cross-Link by Click Chemistry (oral presentation). Society for Biomaterials, April 21-24, 2010, Seattle, WA
- 137. Yao L, Ruiter GCW, Wang H, Knight AM, Spinner RJ, Yaszemski MJ, Windebank AJ, Pandit A: Controlling dispersion of axonal regeneration using a multichannel collagen nerve conduit (oral presentation and poster). Society for Biomaterials, April 21-24, 2010, Seattle, WA
- 138. Dadsetan M. Liu Z, Pumberger, M, Yaszemski MJ: Stimuli-responsive hydrogel for drug delivery (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010
- 139. Dadsetan M. Liu Z, Pumberger, M, Yaszemski MJ: Electrically charged PEG-based hydrogel for cartilage regeneration (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010
- 140. Runge MB, Dadsetan M, Knight A, Windebank AJ, Yaszemski MJ: Development of conducting polymer composites in peripheral nerve regeneration (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010

- 141. Runge MB and Yaszemski MJ: Development of injectable polymers that cross-link by click chemistry (poster). Tissue Engineering and Regenerative Medicine International Society, Galway, Ireland, June 13-17, 2010
- 142. Yao L, Ruiter GCW, Wang H, Knight AM, Spinner RJ, Yaszemski MJ, Windebank AJ, Pandit A: Controlling dispersion of axonal regeneration using a multichannel nerve conduit (oral presentation). European Society for Biomaterials 23<sup>rd</sup> Annual Meeting, Tampere, Finland, September 11-15, 2010
- 143. Craig TA, Evans GL, Hefferan T, Yaszemski MJ, Ekker SC, Kumar R: Microcomputerized tomographic assessment of zebrafish skeleton (poster). American Society for Bone and Mineral Research Annual Meeting, Toronto, Ontario, Canada, October 16, 2010
- 144. Wermers R, Hefferan T, Berkseth K, Jewison D, Drake M, Yaszemski MJ, Tebben P. Bone histomorphometry in hypophosphatasia diagnosed in adults. (poster). American Society for Bone and Mineral Research Annual Meeting, Toronto, Ontario, Canada, October 18, 2010
- 145. Shinohara K, Luangphakdy V, Pan H, Boehm C, Lampe B, Saini S, Griffith L, Stockdale L, Segovis S, Yaszemski MJ, Darr A, Kohn J, Muschler G: Systematic Evaluation from Available Promising Three-Dimensional Osteoconductive Bone Scaffolds in Canine Femoral Multi Defect Model, (poster #1852), Orthopaedic Research Society/American Academy of Orthopaedic Surgeons, Tissue Engineering Cartilage, Long Beach, CA, January 13-16, 2011
- 145. Wang H, Runge MB, Rui J, Yaszemski MJ, Windebank MJ, Spinner RJ: Conductive polymer scaffolds for repair of rate sciatic nerve (Oral Presentation). American Society for Peripheral Nerve Annual Meeting, Cancun, Mexico, January 14-16, 2011
- 146. Wang H, Runge MB, Rui J, Knight A, Spinner RJ, Windebank AJ, Yaszemski MJ: Conductive polymer scaffolds for repair of rat sciatic nerve (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, January 17-20, 2011
- 147. Rui J, Wang H, Runge MB, Spinner RJ, Yaszemski MJ, Windebank AJ: Effects of exogenous VEGF on peripheral nerve regeneration—a preliminary report (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, January 17-20, 2011
- 148. Rui J, Wang H, Yaszemski MJ, Spinner RJ, Windebank AJ: Controlled release of VEGF using PLFA microspheres (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, January 17-20, 2011
- 149. Dadsetan M, Giuliani M, Wanivenhaus F, Runge MB, Ruesink T, Yaszemski MJ: Incorporation of phosphate group into fumarate polyesters improves osteoblast attachment and differentiation (poster). Armed Forces Institute of Regenerative Medicine (AFIRM) All Hands Meeting, January 17-20, 2011
- 150. Wang X, Yi JE, Yang, P, Yaszemski MJ, Maran A, Mayer KJ, Erickson-Johnson, MR, Oliveira AM: Fusion of Dynactin 1 (DCTN1) to ALK in Inflammatory Myofibroblastic Tumor. 2011 USCAP Annual Meeting, San Antonio, TX February 26-March 4, 2011
- 151. Langphakdy V, Shinohara K, Pan H, Griffith L, Yaszemski MJ, Kohn J, Muschler G: Competitive assessment of polymer-based bone scaffolds in the canine femoral multi-defect model (poster). Advanced Technology Applications for Combat Casualty Care (ATACCC) Conference, Fort Lauderdale, FL, August 15-18, 2011

- 152. Evans G, Wang H, Hodgson SF, Runge MB, Windebank A, Spinner R, Yaszemski MJ: The effect of sciatic neurotomy and nerve repair on cancellous bone in rat femurs and tibias (poster). American Society for Bone and Mineral Research, San Diego, CA, September 16-20, 2011
- 153. Yang C, Shogren KL, Goyal R, Yaszemski MJ, Maran A: RNA-dependent protein kinase is essential for 2-methoxyestradiol-induced autophagy in osteosarcoma cells. American Society for Bone and Mineral Research (poster), San Diego, CA, September 16-20, 2011
- 154. Hefferan TE, Runge MB, Dadsetan M, Herrick J, Evans GL, Jewison D, Luangphakdy V, Muschler G, Yaszemski MJ: Bone regeneration potential of polypropylene fumarate scaffolds coated with osteoconductive agents (poster). American Society for Bone and Mineral Research, San Diego, CA, September 16-20, 2011
- 155. Jewison D, Wermers RA, Hodgson SF, Sebo TJ, Yaszemski MJ, Hefferan TE: Normal histomorphometric reference ranges for cortical bone width and cortical porosity in adult females (poster). American Society for Bone and Mineral Research, San Diego, CA, September 16-20, 2011
- 156. Rui J, Runge MB, Spinner RJ, Yaszemski MJ, Windebank AJ, Wang H: Pearls and pitfalls of motion analysis: Is there a place for it in the functional evaluation of sciatic nerve injury and repair (oral presentation)? American Society for Peripheral Nerve Annual Meeting, Las Vegas, NV, January 14-15, 2012
- 157. Runge MB, Wang H, Moroder P, Rui J, Spinner RJ. Windebank AJ, Yaszemski MJ: Electrically conductive PCLF-PPy conduits for application in nerve regeneration (Poster Presentation). Armed Forces Institute of Regenerative Medicine 3<sup>rd</sup> Annual Meeting, Clearwater Fl, Jan 17-20, 2012
- 158. Runge MB, Wang H, Moroder P, Rui J, Spinner RJ. Windebank AJ, Yaszemski MJ: Modulation of mechanical properties and effect of sterilization on PCLF material properties (Poster Presentation). Armed Forces Institute of Regenerative Medicine 3<sup>rd</sup> Annual Meeting, Clearwater Fl, January 17-20, 2012
- 159. Casper ME, Dadsetan M, Yaszemski MJ: Co-encapsulation of TGF-β1 into negatively charged oligo(polyethylene glycol) fumarate (OPF) hydrogels to enhance chondrogenesis (poster presentation). 2012 Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 4-7, 2012
- 160. Dadsetan M, Taylor K, Yang C, Lu L, Yaszemski MJ: Zero order delivery of anti-tumor drugs using stimuli-responsive microgels. ACS National Meeting San Diego CA, March 25-29, 2012
- 161. Runge MB, Windebank AJ, Yaszemski MJ: Development of photo degradable polycaprolactone fumarate block copolymers (Oral Presentation). ACS National Meeting San Diego CA, March 25-29, 2012
- 162. Jewison DE, Maran A, Hefferan TE, Cha SS, Yaszemski MJ: The importance of analytical instrument and system software validation for clinical testing of bone specimens (Poster Presentation). Mayo Clinic Quality and Systems Engineering Conference, Rochester, MN, May 14-16, 2012
- 163. Maran A, Riesterr S, Shogren K, Evans G, Yaszemski MJ: Increased sclerostin levels in osteosarcoma (Poster Presentation). American Society of Bone and Mineral Research Annual Meeting, Minneapolis, MN, October 12-15, 2012
- 164. Grant K, Raupach R, Meyer E, Yaszemski M, Glohr T, Schmidt B: Assessment of the Potential Improvement in CT Number Accuracy Using a Raw-data Bsed Metal Artifact

- Reduction Technique in Phantom Patient Data. SST15-01, Radiologic Society of North America, Chicago, IL, November 30, 2012
- 165. Caralla T, Joshi P, Luangphakdy V, Yaszemski MJ, Hefferan TE, Zboroski M, Muschler G: Concentration and selection of osteogenic progenitors using magnetic labeling based on hyaluronan expression for immediate transplantation into a canine femoral multidefect model. Association of Bone & Joint Surgeons Meeting, Ciragan Palace Kempinski, Istanbul, Turkey, April 27, 2013
- 166. Yaszemski MJ: Bedside to Bench and Back: Tissue Engineering Strategies to Address Bone Defects. 5<sup>th</sup> International Conference on Tissue Engineering. Aegean Conference Series Vol. 84, Kos, Greece, June 23, 2014
- 167. Giambini H, Dragomir-Daescu D, Nassr A, Yaszemski MJ, Zhao C: Quantitative Computed Tomography Protocols Affect Material Mapping and QCT-based FEA Predicted Stiffness. Orthopedic Research Society (ORS), Orlando FL, March 2016
- 168. Reumann S, Shogren K, Yaszemski MJ, Windhager R, Maran A: Chemoresistance of SW1353 Chondrosarcoma Cells Towards Cisplantin is partly dependant on Autophagy. 29<sup>th</sup> Annual Meeting of the European Musculo-Skeletal Oncolocy Society, LaBaule Congress Center, France, May 25-27, 2016